Table of Contents

As filed with the Securities and Exchange Commission on March 15, 2024.

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
Under
The Securities Act of 1933

CONTINEUM THERAPEUTICS, INC.
(Exact name of Registrant as specified in its charter)

Delaware	2834	27-1467257
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

10578 Science Center Drive, Suite 200
San Diego, California 92121
(858) 333-5280
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Carmine Stengone
Chief Executive Officer and President
Contineum Therapeutics, Inc.
10578 Science Center Drive, Suite 200
San Diego, California 92121
(858) 333-5280
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Jeffrey C. Thacker **Ryan J. Gunderson** **Leanne A. Gould** **Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP** **3570 Carmel Mountain Road, Suite 200** **San Diego, California 92130** **(858) 436-8000**	**Copies to:** **Peter Slover** **Chief Financial Officer** **Contineum Therapeutics, Inc.** **10578 Science Center Drive, Suite 200** **San Diego, California 92121** **(858) 333-5280**	**Frank F. Rahmani** **Samir A. Gandhi** **J. Carlton Fleming** **Kostian Ciko** **Sidley Austin LLP** **555 California Street, Suite 2000** **San Francisco, California 94104** **(415) 772-1200**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement. ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

Table of Contents

Subject to Completion, dated March 15, 2024

Shares

Contineum Therapeutics, Inc.

Class A Common Stock

This is an initial public offering of shares of Class A common stock of Contineum Therapeutics, Inc. We are offering shares of our Class A common stock.

Prior to this offering, there has been no public market for the Class A common stock. It is currently estimated that the initial public offering price per share will be between $ and $. Application has been made for the quotation of the common stock on the Nasdaq Global Select Market (Nasdaq) under the symbol "CTNM". This offering is contingent upon the final approval from Nasdaq of the quotation of our Class A Common Stock on the Nasdaq Global Select Market.

We are an "emerging growth company" and a "smaller reporting company" as defined under the federal securities laws and, as such, we have elected to comply with certain reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary—Implications of Being an Emerging Growth Company and Smaller Reporting Company."

Following this offering we will have two classes of common stock: Class A common stock and Class B common stock. The rights of the holders of Class A common stock and Class B common stock are identical, except with respect to voting and conversion rights. Each share of Class A common stock is entitled to one vote per share. Each share of Class B common stock is not entitled to vote and is convertible at any time into one share of Class A common stock, subject to ownership limitations provided for in our amended and restated certificate of incorporation to be in effect upon the completion of this offering. For a description of the rights of the Class A common stock and Class B common stock, please see the section titled "Description of Capital Stock" beginning on page 201 of this prospectus. We are only offering Class A common stock in this offering, and unless otherwise noted, all references in this prospectus to our "common stock" refer to our Class A common stock. The Class B common stock will not be listed for trading on any securities exchange.

See the section titled "Risk Factors" beginning on page 15 of this prospectus to read about factors you should consider before buying shares of the common stock.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

	Per Share	Total
Initial public offering price	$	$
Underwriting discount[(1)]	$	$
Proceeds, before expenses, to us	$	$

(1) See the section titled "Underwriting" for additional information regarding compensation payable to the underwriters.

The underwriters have the option to purchase up to an additional shares from us at the initial price to the public, less the underwriting discount, for 30 days after the date of this prospectus.

The underwriters expect to deliver the shares of Class A common stock against payment in New York, New York on or about , 2024.

Goldman Sachs & Co. LLC **Morgan Stanley** **Stifel** **RBC Capital Markets**

The date of this prospectus is , 2024.

TABLE OF CONTENTS

Through and including , 2024 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

Neither we nor the underwriters have authorized anyone to provide you any information or to make any representations other than those contained in this prospectus, any amendment or supplement to this prospectus or in any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus or in any applicable free writing prospectus is current only as of its date, regardless of its time of delivery or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

Neither we nor the underwriters have done anything that would permit this offering or possession or distribution of this prospectus or any free writing prospectus we may provide to you in connection with this offering in any jurisdiction where action for that purpose is required, other than in the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus and any such free writing prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere in this prospectus and is qualified in its entirety by the more detailed information and financial statements included elsewhere in this prospectus. This summary does not contain all of the information that may be important to you and your investment decision. You should carefully read this entire prospectus, including the sections titled "Risk Factors," "Special Note Regarding Forward-Looking Statements," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our financial statements and related notes. In this prospectus, unless context requires otherwise, references to "we," "us," "our," "Contineum," or the "Company" or similar terms refer to Contineum Therapeutics, Inc.

Company Overview

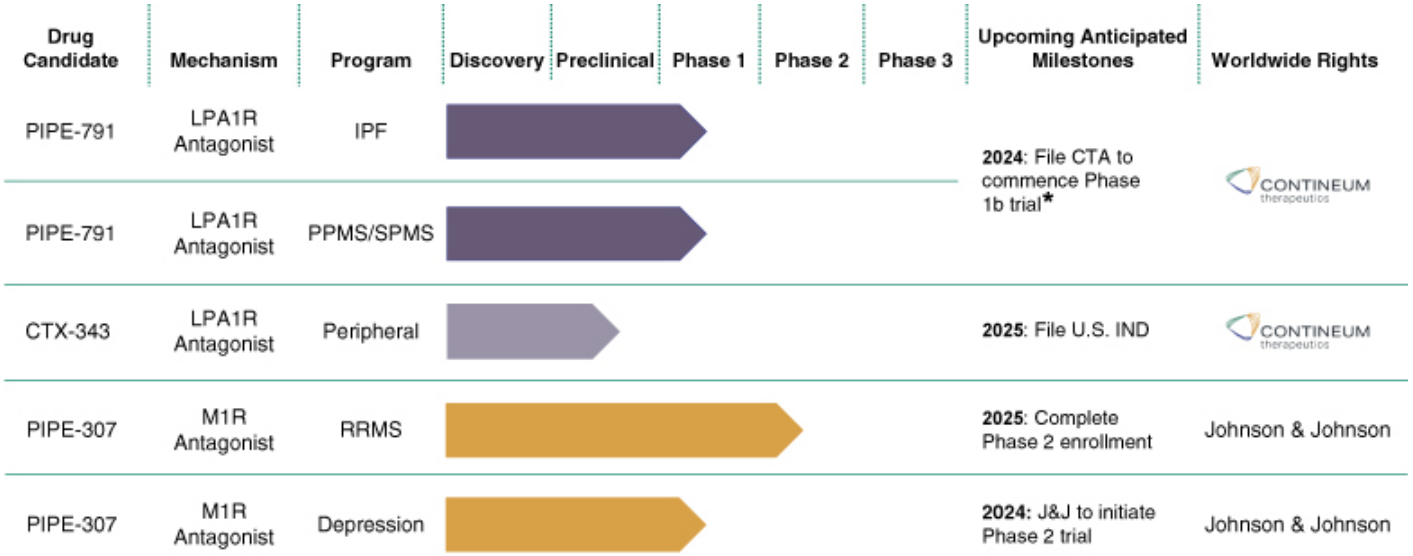
We are a clinical stage biopharmaceutical company focused on discovering and developing novel, oral small molecule therapies that target biological pathways associated with specific clinical impairments for the treatment of neuroscience, inflammation and immunology (NI&I) indications with high unmet need.

We have focused our efforts on developing selective compounds targeting challenging molecular pathways, and through these efforts, have built a portfolio of small molecule drug candidates. Our wholly-owned lead asset, PIPE-791, is a novel, brain penetrant, small molecule inhibitor of the lysophosphatidic acid 1 receptor (LPA1R) in development for idiopathic pulmonary fibrosis (IPF) and progressive multiple sclerosis (Progressive MS). LPA1R antagonism is a clinically validated mechanism, and we believe that our preclinical studies and Phase 1 healthy volunteer data support the continued development of PIPE-791 for both IPF and Progressive MS. Specifically, based on its high bioavailability, low plasma protein binding, and long receptor residence time in our preclinical studies compared to the preclinical data of other LPA1 antagonists that we know are currently in development, we also believe PIPE-791 has the potential to be a differentiated LPA1R therapy. We completed a Phase 1 clinical trial of PIPE-791 in healthy volunteers in support of clinical development in both IPF and Progressive MS. We plan to submit a Clinical Trial Authorization (CTA) to the Medicines and Healthcare products Regulatory Agency (MHRA) to commence a Phase 1b open-label trial of PIPE-791 to measure the relationship of pharmacokinetics (PK) to lung and brain receptor occupancy by positron emission tomography (PET) imaging in 2024. This Phase 1b trial will inform dose selection for our planned future Phase 2 trials of PIPE-791 in IPF and Progressive MS. Our second drug candidate, PIPE-307, is a novel, small molecule selective inhibitor of the muscarinic type 1 M1 receptor (M1R), in development for depression and relapse remitting MS (RRMS). M1R antagonism has been clinically validated in third-party trials in both depression and RRMS by scopolamine and clemastine, respectively. We have completed two Phase 1 trials of PIPE-307 in healthy volunteers and have initiated a Phase 2 trial of PIPE-307 for the potential treatment of RRMS. To our knowledge, PIPE-307 is the most clinically advanced selective M1R antagonist in development. We are developing PIPE-307 in collaboration with Johnson & Johnson (J&J).

In addition, we are leveraging our drug discovery capabilities synergistically with our clinical portfolio. In January 2024, we nominated and commenced preclinical studies for CTX-343, a peripherally-restricted (unable to cross the blood brain barrier (BBB)) LPA1R antagonist. In parallel, we are actively conducting preclinical and discovery-phase experiments targeting other NI&I indications where our internally-discovered molecules may have therapeutic potential.

Our Clinical Pipeline

We have assembled a portfolio of novel and proprietary small molecule programs that we believe can modulate innate pathways to restore function in NI&I indications, as outlined in the table below. We retain worldwide rights to our LPA1R programs and discovery portfolio, and we have partnered with J&J for the development and potential commercialization efforts of PIPE-307.



* Single Phase 1b PET clinical trial of PIPE-791 for the potential treatment of IPF and Progressive MS.

PIPE-791

Our lead asset, PIPE-791, is a novel, brain penetrant, small molecule LPA1R antagonist. We are initially developing PIPE-791 for the treatment of IPF and Progressive MS, and in parallel we are exploring the potential clinical utility of PIPE-791 in additional disorders where the LPA1 pathway has been implicated.

PIPE-791 for the Potential Treatment of IPF

We are developing PIPE-791 for the potential treatment of IPF. IPF is a rare, chronic, idiopathic interstitial lung disease (ILD), characterized by progressive fibrosis (thickening and scarring) of the lung tissue, leading to severe loss of respiratory function. The prognosis for overall survival is worse than many forms of cancer, with approximately 60% to 80% of patients dying from respiratory failure within five years of diagnosis. There are approximately 130,000 patients with IPF in the United States and three million cases worldwide as of 2017. There are two U.S. Food and Drug Administration (FDA)-approved therapies for IPF, pirfenidone (Esbriet, marketed by Genentech/Roche) and nintedanib (Ofev, marketed by Boehringer Ingelheim), but these drugs do not stop progression of IPF and have limitations related to side effects, tolerability and multi-daily dosing regimens. IPF therefore remains an area of high unmet medical need.

The lysophosphatidic acid (LPA)/LPA1R pathway is a key mediator of fibrosis. LPA is a bioactive lipid that is elevated in response to lung injury and activates LPA1R. Activation of LPA1R drives a number of cellular cascades, including fibroblast recruitment and vascular leakage, that lead to fibrosis. Inhibition of LPA1R can reduce these detrimental processes and may be a beneficial treatment for IPF. This is supported by third-party LPA1R antagonist programs, which have demonstrated clinical proof-of-concept in multiple Phase 2 clinical trials in IPF patients. Based on the dosing profile from our

preclinical studies and the PK data from our Phase 1 healthy volunteer trial, we believe PIPE-791, pending further clinical development and FDA approval, has the potential to treat IPF with once-daily dosing. In contrast, currently approved IPF therapies require multiple-daily dosing regimens.

PIPE-791 for the Potential Treatment of Progressive MS

Multiple sclerosis (MS) is a chronic immune-mediated disease of the central nervous system (CNS) characterized by neuro-inflammation and demyelination. The three main clinical categories of MS include RRMS, Secondary Progressive MS (SPMS), and Primary Progressive MS (PPMS). We are developing PIPE-791 for the potential treatment of the two later categories, SPMS and PPMS, which are collectively referred to as Progressive MS.

The three main clinical forms of MS have differences in prevalence and presentation. RRMS comprises 85% of newly diagnosed MS patients, and the clinical course is marked by relapses and remissions, defined as disease flare-ups followed by periods of partial recovery. Many RRMS patients eventually progress to worsening disease, and it is estimated that roughly 50% to 70% of diagnosed RRMS patients progress to SPMS within 10 to 15 years. PPMS is the other category that comprises Progressive MS, and it is estimated that approximately 15% of newly diagnosed MS patients fall into this clinical category which is marked by a steady course of clinical progression from the time of presentation. In 2020, the global prevalence of MS was estimated to be 2.8 million patients, and we believe that more than 750,000 of this global population have Progressive MS (i.e., the collective population of SPMS and PPMS patients). Although substantial progress has been made in the development of effective immune-modulating treatments for RRMS, many of these approved drugs have been tested in Progressive MS with almost uniformly disappointing results. The relative lack of effective therapies for Progressive MS has further justified the exploration of novel treatment approaches. In that regard, the LPA/LPA1R axis has been proposed as a potential active pathway contributing to the pathophysiology of MS. Specifically, LPA is a pro-inflammatory lipid that has been shown to be elevated in the plasma and cerebrospinal fluid (CSF) of MS patients and that may promote neuroinflammation and limit remyelination through the activation of the LPA1R.

We have demonstrated in our preclinical studies that blocking LPA1R with PIPE-791 reduces neuroinflammation and promotes remyelination. The chronic demyelination (and failure of endogenous remyelination) and chronic neuroinflammation are prominent pathological features that heavily contribute to the neurodegeneration and clinical disability in patients with Progressive MS. To our knowledge, PIPE-791 is the only brain penetrant LPA1R antagonist in clinical development for Progressive MS. Therefore, we believe PIPE-791, pending further clinical development and FDA approval, can be the first therapeutic to address chronic neuroinflammation and demyelination associated with Progressive MS.

CTX-343

In addition to PIPE-791, our brain penetrant drug candidate, we are also developing CTX-343, a peripherally-restricted LPA1R antagonist to further expand clinical indications involving LPA1R antagonism.

PIPE-307

Our second drug candidate, PIPE-307, is a novel, small molecule, selective inhibitor of M1R, which is in clinical development for the potential treatment of depression and RRMS. In February 2023, we entered into a license agreement with Johnson and Johnson Innovative Medicine (formerly Janssen

Pharmaceutica NV), an affiliate of J&J (collectively referred to herein with J&J, as J&J), under which we granted J&J an exclusive, worldwide license to develop, manufacture and commercialize PIPE-307 in all indications (J&J License Agreement). We received an upfront payment of $50.0 million, and we are eligible to receive milestone payments up to an aggregate of approximately $1.0 billion and tiered royalties in the low-double digit to high-teen percent range on future net sales of products containing PIPE-307. Additionally, we received a $25.0 million equity investment from Johnson & Johnson Innovation – JJDC, Inc. (JJDC), an affiliate of J&J. We have an opt-in right to fund a portion of all Phase 3 development costs for PIPE-307 in return for an increase in royalty rates by one to two percentage points. We are conducting a Phase 2 trial of PIPE-307 for the potential treatment of RRMS, which initiated in November 2023. In addition, J&J has the right, in its sole discretion, to further develop or elect not to develop PIPE-307 for RRMS. PIPE-307 is also in development for the potential treatment of depression, for which J&J plans to initiate a Phase 2 trial in 2024.

PIPE-307 for the Potential Treatment of Depression

Depression is one of the most common mood disorders with an approximate prevalence of 280 million people globally. Depression is associated with significant neuropsychiatric disability and increased mortality risk, and nearly 20% of U.S. adults suffer from the disorder. Despite numerous approved treatments, there remains a significant unmet medical need in the treatment of depression. It is well recognized that many patients fail to respond to currently available treatments, or the therapies are only partially effective and often associated with pronounced side effects.

Targeting the cholinergic neurotransmitter system has been established as a strategy for the treatment of depression, strongly supported by studies testing scopolamine as a potential treatment agent. Scopolamine is a non-specific antagonist of all five muscarinic receptors (M1R through M5R), and has demonstrated rapid, robust, and durable antidepressant responses in patients with major depressive disorder (MDD) and bipolar disorder (BPD). Further investigation showed that these clinical effects were specifically linked to M1R antagonism. However, the non-specific, anticholinergic properties of scopolamine lead to tolerability issues that are contraindicative in the setting of depression. With PIPE-307 being an M1R selective antagonist, we believe that the collective data support its development for the treatment of depression, while potentially avoiding off-target effects. We have demonstrated proof-of-concept in PIPE-307 preclinical studies in depression by showing improved depression-like behaviors in the Porsolt forced swim test (PST), a rodent model of depression.

PIPE-307 for the Potential Treatment of RRMS

We are also developing, in collaboration with J&J, PIPE-307 for the potential treatment of RRMS. A pathological hallmark of all forms of MS is the accumulation of demyelinating lesions that occur in the brain and spinal cord. In MS, loss of myelin leads to slower signal transmission through the axon and eventual permanent loss of neuronal function. We believe treatments targeting remyelination, and the subsequent restoration of axonal conduction, can positively impact clinical disability and address the neurodegeneration associated with RRMS. While the FDA has approved over 20 therapies for RRMS that focus on immune modulation to reduce the annual rate of relapses associated with the inflammatory aspects of the disease, none of these therapies directly promote remyelination.

Clinical proof-of-concept for M1R antagonism and remyelination in RRMS was demonstrated in a Phase 2 randomized, double-blind, placebo-controlled crossover trial to assess the efficacy of clemastine, an FDA approved H1 antihistamine and non-selective antimuscarinic compound, as a remyelinating agent in RRMS. However, the antihistamine related side effects associated with

clemastine complicate use of this drug in the MS patient population. In that regard, PIPE-307 was developed as a highly-selective M1R antagonist in order to avoid the side effects associated with broad anti-muscarinic agents.

We are currently enrolling a multi-center randomized, double-blind, placebo-controlled Phase 2 proof-of-concept trial of PIPE-307 as an adjunctive treatment in RRMS patients under FDA Investigational New Drug (IND) authorization. We designed this trial, also referred to as the VISTA study, to assess efficacy and safety in patients with RRMS and to measure multiple clinical and imaging endpoints sensitive to changes in remyelination in RRMS.

Our Competitive Strengths

We have a strong, complementary relationship between our medicinal chemistry and biology functions and a team with broad and extensive expertise, which allows us to develop drug candidates for historically difficult targets. We believe that our competitive strengths include:

- Our broad expertise of NI&I indications allows us to seek to maximize the value of our drug candidates by developing them across multiple therapeutic areas.
- Our lead drug candidate, PIPE-791, targets the LPA1R, a clinically validated target for IPF, and, we believe, pending further clinical development and FDA approval, has the potential to treat IPF with once-daily dosing.
- We are advancing a new treatment paradigm in MS, by leveraging novel pathways that have the potential to reduce neuroinflammation and support remyelination.
- We have assembled a distinguished internal team and advisors that include pioneers of LPA1 and M1 biology, with decades of expertise in drug discovery and development.

Our Strategy

Our mission is to significantly impact the clinical disability associated with NI&I diseases with small molecules designed to modulate innate pathways to restore function. We aim to accomplish our goal by implementing the following strategies:

- Execute a balanced development strategy in which we assess both external clinical validation and novel therapeutic approaches for our targets.
- Pursue clinical development of PIPE-791, a LPA1R antagonist, for the treatment of IPF, a sizeable market with high unmet need.
- Pursue clinical development of PIPE-791 in Progressive MS to address the high unmet need for a therapy that has the potential to reduce neuroinflammation and support remyelination.
- Seek to maximize the value of PIPE-791 by investigating its applicability in a broad range of NI&I disorders beyond IPF and Progressive MS.
- Support the advancement of PIPE-307 through a broad clinical development strategy through our partnership with J&J.
- Further leverage our drug discovery capabilities to build out a franchise with deliberate focus on developing therapeutics that are synergistic with our existing portfolio, including a peripherally-restricted LPA1R antagonist, CTX-343.
- Evaluate and selectively engage in strategic collaborations to maximize the potential of our pipeline.

Our Team

We have assembled a seasoned team with expertise in small molecule drug design across the fields of NI&I. Our Chief Executive Officer, Carmine Stengone, joined Contineum Therapeutics in October 2018. His previous roles include President, Chief Executive Officer and Director of Avelas Biosciences and co-founder and Chief Executive Officer of Afraxis, Inc. He also served as Senior Vice President, Business Development for COI Pharmaceuticals (now Avalon Bioventures) and a member of its investment committee, where he helped co-found six biotech companies, including two focused in neuroscience. Before that, he was with Phenomix Corporation as the Senior Director of Business Development, and previously held positions at Anadys Pharmaceuticals, Inc. and J&J. Daniel Lorrain is one of our founders and serves as our Chief Scientific Officer with over 23 years of experience in small molecule drug discovery. Previously, Dr. Lorrain was Vice President of Biology at Inception Sciences where he led all aspects of biology and nonclinical pharmacology, including for Inception 5, a remyelination company acquired by Roche. Prior to this, he was at Amira Pharmaceuticals where he led development of the LPA1 program, which was a key driver in its acquisition by Bristol-Myers Squibb. Stephen Huhn serves as our Chief Medical Officer and Senior Vice President of Clinical Development and has over 15 years of experience in clinical development for neuroscience indications. Dr. Huhn previously served as Chief Medical Officer and Vice President of Clinical Development at StemCells, Inc. (StemCells), where he led multiple clinical programs in a wide range of neurology and ophthalmology indications. Dr. Huhn is a Fellow in the American Association of Neurological Surgeons, and was Chief of Pediatric Neurosurgery at Stanford University before joining StemCells in 2007. Peter Slover is our Chief Financial Officer and previously served as Chief Financial Officer at Sophiris Bio Inc. (Sophiris), where he led Sophiris' initial public offering on the Nasdaq. Prior to that, Mr. Slover held several management positions at Anadys and spent seven years in public accounting at KPMG LLP.

Risks Related to Our Business

Our ability to execute our business strategy is subject to numerous risks, as more fully described in the section entitled "Risk Factors" immediately following this prospectus summary. These risks include, among others:

- *We are heavily dependent on the success of PIPE-791, our lead drug candidate, and PIPE-307, both of which are in the early stages of clinical development. If these drug candidates do not progress through clinical development, eventually receive regulatory approval or, even if approved, are not successfully commercialized, our business will be materially adversely harmed.*
- *Clinical drug development is a lengthy, expensive and risky process with uncertain timelines and uncertain outcomes. The results of earlier preclinical studies and clinical trials, including those conducted by third parties, may not be predictive of future results. If clinical trials for the drug candidates we develop do not meet safety or efficacy endpoints or are prolonged or delayed, these drug candidates may not receive the required regulatory approvals, and therefore could not be commercialized on a timely basis or at all. Further, the results of our preclinical studies, clinical trials, or analyses may not be indicative of results that may be obtained in later trials.*
- *The regulatory approval processes of the FDA and comparable foreign regulatory authorities are unpredictable, lengthy, and time-consuming, and if we are ultimately unable to obtain regulatory approval for PIPE-791 or any other drug candidates that we develop or J&J is unable to obtain regulatory approval for PIPE-307, our business will be substantially harmed.*

- *We may not be successful in our efforts to identify and develop additional drug candidates or identify additional indications. Due to our limited resources and access to capital, we must prioritize development of a limited number of drug candidates, the choice of which may prove to be wrong and adversely affect our business.*
- *We have and may continue to conduct future clinical trials outside of the United States. The FDA and other regulatory authorities or ethics committees may not accept data from such trials, in which case our development plans will be delayed, which could materially harm our business and financial condition.*
- *We have incurred significant operating expenses since inception and anticipate that our operating expenses will continue to significantly increase for the foreseeable future. As a result, we may be unable to sustain profitability, and if we are unable to achieve sustained profitability, the market value of our common stock will likely decline. As of December 31, 2023, we had an accumulated deficit of $75.1 million.*
- *We have a limited operating history and the drug candidates we have developed are in the early stages of clinical development, which may make it difficult to evaluate the prospects for our future viability.*
- *Even if this offering is successful, we will require significant additional capital to complete the development and commercialization of PIPE-791 and the other drug candidates we select for development.*
- *If the J&J License Agreement does not result in the successful development of PIPE-307, our business, financial condition and results of operations will be harmed.*
- *We may seek to grow our business through in-licensing transactions or otherwise by acquiring drug candidates or complementary products, technologies or businesses. The failure to properly identify these drug candidates, products, technologies or businesses, as well as the failure to successfully complete transactions or to integrate any such drug candidates, products, technologies or businesses that we do in-license or acquire with our existing business, could harm our business, financial condition and operating results.*
- *If we are unable to obtain, maintain and enforce intellectual property protection for our technology and drug candidates or if the scope of the intellectual property protection we obtain is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize and generate revenues from our drug candidates may be adversely affected.*
- *We currently rely on third-party contract manufacturing organizations (CMOs) for the production of clinical supplies of PIPE-791 and PIPE-307 and we intend to rely on CMOs for our future drug candidates, as well as to supply the raw materials necessary to produce our drug candidates. We may elect to continue to rely on CMOs for the production of commercial supplies of PIPE-791, if approved. Our dependence on CMOs may impair our development of drug candidates and may impair their commercialization, which would adversely impact our business and financial position.*
- *We rely on third parties to conduct our ongoing clinical trials of PIPE-791 and PIPE-307 and expect to rely on third parties to conduct future clinical trials of PIPE-791 and any other drug candidates that we develop. If these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize the drug candidates we develop and our business could be substantially harmed.*

- *Our future success depends on our ability to retain our key personnel and to attract, retain and motivate qualified personnel.*
- *We face significant competition from biotechnology, pharmaceutical, and medical device companies, and our operating results will suffer if we fail to compete effectively and in a timely manner.*
- *Even if PIPE-791 or PIPE-307 receives marketing approval in an indication, it may fail to achieve market acceptance by physicians, patients, third-party payors, or others in the medical community necessary for commercial success.*
- *We have no sales, marketing or distribution capabilities or experience. If we are unable to establish sales and marketing capabilities either on our own or in collaboration with third parties, we may not be successful in commercializing PIPE-791, even if approved.*
- *Our amended and restated certificate of incorporation, which will be in effect at the completion of this offering, will provide that the Court of Chancery of the State of Delaware and the U.S. federal district courts are the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.*

Corporate Information

We were incorporated in the state of Delaware in 2009 as Versense Pharmaceuticals, Inc. (Versense). Versense changed its corporate name to Inception 3, Inc. (Inception), in October 2011, and commenced active operations in July 2012. In May 2018, Inception changed its corporate name to Sirocco Therapeutics, Inc. (legacy Sirocco). A separate entity named Pipeline Therapeutics, Inc. (or legacy Pipeline) was founded and incorporated in the state of Delaware in May 2017. On May 7, 2019, legacy Sirocco acquired legacy Pipeline in a merger transaction. In January 2020, legacy Pipeline was merged into legacy Sirocco and ceased to exist; and legacy Sirocco changed its name to Pipeline Therapeutics, Inc. In November 2023, Pipeline Therapeutics, Inc. changed its name to Contineum Therapeutics, Inc.

Our principal executive offices are located at 10578 Science Center Drive, Suite 200, San Diego, California 92121. Our telephone number is (858) 333-5280. Our website address is www.contineum-tx.com. Information contained on the website is not incorporated by reference into this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Contineum, the Contineum logo and our other registered or common law trademarks appearing in this prospectus are the property of Contineum Therapeutics, Inc. This prospectus contains references to our trademarks, trade names and service marks and to those belonging to other entities. Solely for convenience, trademarks, trade names and service marks referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ®, TM or SM symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, trade names and service marks. We do not intend our use or display of other entities' trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

Implications of Being an Emerging Growth Company and Smaller Reporting Company

We are an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012, as amended (JOBS Act). We will remain an emerging growth company until the earliest to occur of: (i) the last day of the fiscal year in which we have more than $1.235 billion in annual gross revenue; (ii) the date we qualify as a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act of 1934, as amended (Exchange Act), with at least $700 million of equity securities held by non-affiliates; (iii) the issuance, in any three-year period, by us of more than $1.0 billion in non-convertible debt securities; or (iv) the last day of the fiscal year ending after the fifth anniversary of this offering. As a result of this status, we have taken advantage of certain exemptions from various reporting requirements in this prospectus that are applicable to other publicly-traded entities that are not emerging growth companies and may elect to take advantage of other exemptions from reporting requirements in our future filings with the Securities and Exchange Commission (SEC). In particular, in this prospectus, these exemptions include:

- the option to present only two years of audited financial statements and only two years of Management's Discussion and Analysis of Financial Condition and Results of Operations;
- not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002, as amended (Sarbanes Oxley Act); and
- not being required to disclose certain executive compensation-related items such as the correlation between executive compensation and performance and comparisons of the chief executive officer's compensation to median employee compensation.

In addition, Section 107 of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards, delaying the adoption of these accounting standards until they would apply to private companies. We have elected to avail ourselves of this exemption and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for private companies. As a result, we do not know if some investors will find our common stock less attractive. The result may be a less active trading market for our common stock, and the price of our common stock may become more volatile.

Even after we no longer qualify as an emerging growth company, we may continue to qualify as a "smaller reporting company," which would allow us to take advantage of many of the same exemptions from disclosure requirements including reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements, if either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million.

THE OFFERING

Issuer	Contineum Therapeutics, Inc.
Shares of Class A common stock offered by us	shares
Underwriters' option to purchase additional shares	We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase up to additional shares of our Class A common stock.
Class A common stock to be outstanding immediately after this offering	shares (or shares if the underwriters exercise their option to purchase additional shares in full)
Class B common stock to be outstanding immediately after this offering	shares
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $ million, or $ million if the underwriters exercise their option to purchase additional shares in full, after deducting estimated underwriting discounts and estimated offering expenses payable by us, assuming an initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus. We intend to use the net proceeds from this offering (i) to advance the development of our LPA1R antagonist program, including the completion of our Phase 1b PET imaging trial and Phase 2 clinical trials for our lead drug candidate, PIPE-791, in IPF and Progressive MS, (ii) to complete our Phase 2 clinical trials of PIPE-307 for the potential treatment of RRMS, and (iii) the remaining proceeds to fund other research and development activities and for general corporate purposes. See "Use of Proceeds" on page 83 for additional information.
Voting Rights	We have two classes of common stock: Class A common stock and Class B common stock. Class A common stock has one (1) vote per share and Class B common stock has no votes per share. Only the Class A common stock is being offered in this offering. For a description of the rights of the Class A common stock and Class B common stock, see "Description of Capital Stock."

Risk Factors	See "Risk Factors" beginning on page 15 and the other information included in this prospectus for a discussion of factors you should consider carefully before deciding to invest in our common stock.
Proposed Nasdaq trading symbol	"CTNM"

The number of shares of our Class A common stock and Class B common stock to be outstanding after this offering is based on 102,181,821 shares of our Class A common stock and no shares of our Class B common stock outstanding as of December 31, 2023, and gives effect to the automatic conversion of 89,030,591 shares of our outstanding convertible preferred stock as of December 31, 2023 into an aggregate of 89,030,591 shares of our common stock, which includes 89,030,591 shares of our Class A common stock and no shares of our Class B common stock immediately prior to the completion of this offering, and excludes:

- 14,969,471 shares of Class A common stock issuable upon the exercise of stock options outstanding as of December 31, 2023, with a weighted-average exercise price of $1.06 per share;
- shares of Class A common stock issuable upon the exercise of stock options granted after December 31, 2023 and through , with a weighted-average exercise price of $ per share;
- 88,235 shares of our Class A common stock issuable upon the exercise of an outstanding warrant to purchase shares of our Series B convertible preferred stock (which will convert into a warrant to purchase 88,235 shares of our Class A common stock in connection with the completion of this offering) at an exercise price of $1.70 per share;
- 2,812,543 shares of Class A common stock reserved for future issuance under our 2012 Equity Incentive Plan (the 2012 Plan) as of December 31, 2023, which shares will be added to the shares to be reserved under our 2024 Stock Plan (the 2024 Plan) upon its effectiveness;
- shares of Class A common stock reserved for future issuance under our 2024 Plan, as well as any future automatic increases in the number of shares of common stock reserved for future issuance under this plan; and
- shares of Class A common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan (the 2024 ESPP, as well as any future automatic increases in the number of shares of common stock reserved for future issuance under this plan.

On the date of this prospectus we will cease granting awards under our 2012 Plan. Our 2024 Plan and 2024 ESPP also provide for automatic annual increases in the number of shares reserved thereunder (evergreen provisions), as more fully described in the sections titled "Executive Compensation—Equity Plans—2024 Equity Incentive Plan" and "Executive Compensation—Employee Stock Purchase Plan."

Unless otherwise indicated, all information in this prospectus assumes:

- no exercise by the underwriters of their option to purchase up to an additional shares of our Class A common stock;

- no exercise of the outstanding stock options and warrant described above after December 31, 2023;
- a -for- reverse stock split of our capital stock effected on , 2024;
- the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 89,030,591 shares of our common stock, consisting of 89,030,591 shares of Class A common stock and no shares of Class B common stock immediately prior to the completion of this offering; and
- the filing of our amended and restated certificate of incorporation and the adoption of our amended and restated bylaws immediately prior to the completion of this offering.

SUMMARY FINANCIAL DATA

The summary statements of operations data for the years ended December 31, 2022 and 2023 are derived from our audited financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of results that may be expected in the future, and the results for the year ended December 31, 2023, are not necessarily indicative of results that may be expected for any other period. You should read these summary financial data together with our financial statements and related notes appearing elsewhere in this prospectus and the information in the sections titled "Management's Discussion and Analysis of Financial Condition and Results of Operations." The summary financial data in this section are not intended to replace our financial statements and the related notes and are qualified in their entirety by our financial statements and related notes included elsewhere in this prospectus.

	Years Ended December 31,	
	2022	2023
	(in thousands, except share and per share data)	
Statement of Operations Data:		
Revenue:		
License revenue	$ —	$ 50,000
Operating expenses:		
Research and development	16,894	27,603
General and administrative	5,826	6,320
Total operating expenses	22,720	33,923
Income (loss from operations)	(22,720)	16,077
Other income (expense):		
Interest income	761	4,606
Interest expense	(388)	(208)
Change in fair value of preferred stock warrant liability	3	5
Change in fair value of investor rights and obligations liability	(1,817)	2,867
Other expense, net	(92)	(177)
Total other income (expense)	(1,533)	7,093
Income (loss) before income taxes	(24,253)	23,170
Provision for income taxes	—	450
Net income (loss)	$ (24,253)	$ 22,720
Net income (loss) attributable to common stockholders, basic[(1)]	$ (24,253)	$ 3,146
Net income (loss) attributable to common stockholders, diluted[(1)]	$ (24,253)	$ 274
Net income (loss) per share, basic[(1)]	$ (1.93)	$ 0.24
Net income (loss) per share, diluted[(1)]	$ (1.93)	$ 0.01
Weighted-average shares of common stock outstanding basic[(1)]	12,554,891	12,923,777
Weighted-average shares of common stock outstanding diluted[(1)]	12,554,891	19,005,369
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[(1)]		$ ( )
Weighted-average shares outstanding used in computing pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited)[(1)]		

(1) For the calculation of our basic and diluted net loss per share attributable to common stockholders, unaudited basic and diluted pro forma net loss per share and weighted-average number of shares used in the computation of the per share amounts, see Note 13 to our audited financial statements included elsewhere in this prospectus.

	As of December 31, 2023		
	Actual	Pro Forma[1]	Pro Forma As Adjusted[2] [3]
		(unaudited) (in thousands)	
Balance Sheet Data			
Cash and cash equivalents	$ 15,526		
Working capital[4]	$ 122,222		
Total assets	$ 130,386		
Convertible preferred stock	$ 192,620		
Total stockholders' (deficit) equity	$ (67,936)		

(1) The pro forma balance sheet data gives effect to the automatic conversion of all outstanding shares of our outstanding convertible preferred stock as of December 31, 2023 into an aggregate of shares of our common stock, consisting of shares of Class A common stock and shares of Class B common stock, which will occur immediately prior to the completion of this offering and the filing and effectiveness of our amended and restated certificate of incorporation, which will occur in connection with the closing of this offering.

(2) Reflects the pro forma adjustments described in footnote (1) above and the issuance and sale of shares of Class A common stock in this offering at the assumed initial public offering price of $ per share, the midpoint of the estimated offering price range set forth on the cover page of this prospectus, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated offering price range set forth on the cover page of this prospectus, would increase (decrease), as applicable, the pro forma as adjusted amount of each of our cash and cash equivalents, working capital, total assets, and total stockholders' (deficit) equity by approximately $ million, assuming that the number of shares of Class A common stock offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase (decrease) the number of shares we are offering. Each increase (decrease) of 1.0 million shares in the number of shares of Class A common stock offered by us would increase (decrease) our pro forma as adjusted amount of each of cash and cash equivalents and total stockholders' (deficit) equity by approximately $ million, assuming the assumed initial public offering price of $ per share, which is the midpoint of the estimated offering price range set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual initial public offering price and other terms of our initial public offering determined at pricing.

(4) We define working capital as current assets *less* current liabilities. See our audited financial statements and related notes appearing at the end of this prospectus for further details regarding our current assets and current liabilities.

RISK FACTORS

Investing in our common stock is speculative and involves a high degree of risk. Before investing in our common stock, you should consider carefully the risks described below, together with the other information contained in this prospectus, including our financial statements and the related notes appearing at the end of this prospectus. If any of the following risks occur, our business, financial condition, results of operations and future growth prospects could be materially and adversely affected. In these circumstances, the market price of our common stock could decline, and you may lose all or part of your investment. This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a number of factors, including the risks described below. See "Special Note Regarding Forward-Looking Statements" elsewhere in this prospectus.

Risks Related to Development, Clinical Testing, and Regulatory Approval

We are heavily dependent on the success of PIPE-791, our lead drug candidate, and PIPE-307, both of which are in the early stages of clinical development. If these drug candidates do not progress through clinical development, eventually receive regulatory approval or, even if approved, are not successfully commercialized, our business will be materially adversely harmed.

We currently have no products that are approved for commercial sale and may never be able to develop a marketable product. To date, we have invested a significant portion of our efforts and financial resources on the development of PIPE-791 and PIPE-307. We wholly-own, and are pursuing the clinical development of, PIPE-791 for the treatment of IPF and Progressive MS. In February 2023, we entered into the J&J License Agreement, pursuant to which we granted J&J an exclusive, worldwide license to develop, manufacture and commercialize PIPE-307 in all indications in exchange for an upfront payment and the right to receive future milestone payments and royalties. We are conducting a Phase 2 clinical trial of PIPE-307 for the potential treatment of RRMS, and J&J has announced its intention to initiate a Phase 2 clinical trial of PIPE-307 in depression in 2024. After we complete the Phase 2 clinical for PIPE-307 for the potential treatment of RRMS, J&J has sole discretion to determine whether to pursue further development of PIPE-307 for this indication. Our future success is, therefore, dependent on our ability to successfully complete clinical development for, obtain regulatory approval for, and successfully commercialize PIPE-791 and on J&J's efforts to successfully complete clinical development for, obtain regulatory approval for, and successfully commercialize PIPE-307, which in each case may never occur. We expect that a substantial portion of our efforts and expenditures over the next few years will be devoted to PIPE-791, which will require additional clinical development, management of clinical and manufacturing activities, regulatory approval, establishing commercial scale manufacturing, and significant sales, marketing, and distribution efforts before we can generate any revenues from any commercial sales. We cannot be certain that we or J&J, respectively, will be able to successfully complete any of these activities or that, even if PIPE-791 and/or PIPE-307 receive regulatory approval, such products will be able to successfully compete against therapies and technologies offered by other companies.

The research, testing, manufacturing, labeling, approval, sale, packaging, marketing, and distribution of drug products are subject to extensive regulation by the FDA and comparable regulatory authorities in other countries. We are not permitted to market or sell PIPE-791, and J&J will not be permitted to market or sell PIPE-307, in the United States until we or J&J, as applicable, receive approval of a New Drug Application (NDA) from the FDA for such drug candidate. Further, we are not permitted to market or sell PIPE-791, and J&J will not be permitted to market or sell PIPE-307, in any foreign countries until we or J&J, as applicable, receive the requisite approvals from such countries. Neither we nor J&J have submitted an NDA to the FDA or comparable applications to other regulatory

authorities for PIPE-791 or PIPE-307, respectively, in any indication. Neither party will be in a position to do so for several years, if ever. If we are unable to obtain the necessary regulatory approvals for PIPE-791 in any country, we will not be able to commercialize such drug candidate in that country. Similarly, if J&J is unable to obtain the necessary regulatory approvals for PIPE-307 in any country, it will not be able to commercialize such drug candidate in that country. In both cases, our financial position will be materially adversely affected, and we may not be able to generate sufficient revenue to continue our business.

Clinical drug development is a lengthy, expensive and risky process with uncertain timelines and uncertain outcomes. The results of earlier preclinical studies and clinical trials, including those conducted by third parties, may not be predictive of future results. If clinical trials for the drug candidates we develop do not meet safety or efficacy endpoints or are prolonged or delayed, these drug candidates may not receive the required regulatory approvals, and therefore could not be commercialized on a timely basis or at all. Further, the results of our preclinical studies, clinical trials, or analyses may not be indicative of results that may be obtained in later trials.

Before obtaining marketing approval from regulatory authorities for the sale of the drug candidates we develop, these drug candidates must undergo extensive clinical trials to demonstrate their safety and efficacy in humans. The research and development of drugs is extremely risky. Only a small percentage of drug candidates that enter the development process ever receive marketing approval. Failure or delay can occur at any time during the clinical trial process. To date, we have focused substantially all of our efforts and financial resources on identifying, acquiring, and developing drug candidates, including conducting preclinical studies and early-stage clinical trials. Clinical testing is expensive and can take many years to complete, and we cannot be certain that any clinical trials for the drug candidates we develop will be conducted as planned or completed on schedule, if at all. Our inability to successfully complete preclinical and clinical development for PIPE-791 could result in additional costs to us and negatively impact our ability to generate revenue. Similarly, if J&J cannot successfully complete preclinical and clinical development for PIPE-307, we will not be eligible to receive future milestone payments or royalties under the J&J License Agreement. As a result, our future success is dependent on our ability and the ability of J&J to successfully develop, obtain regulatory approval for, and then successfully commercialize PIPE-791 and PIPE-307, respectively. We currently generate no revenues from sales of any products, and we may never be able to develop or commercialize a marketable product. Further, we may never generate additional milestone payments or royalties under the J&J License Agreement.

PIPE-791 and PIPE-307 are currently in the early stages of clinical development. We completed a Phase 1 clinical trial of PIPE-791 in healthy volunteers in support of clinical development in both IPF and Progressive MS. We plan to submit a CTA to the MHRA to commence a Phase 1b open-label trial of PIPE-791 to measure the relationship of PK to lung and brain receptor occupancy by PET imaging in 2024. This Phase 1b trial will inform dose selection for our planned future Phase 2 trials of PIPE-791 in IPF and Progressive MS. We have completed two Phase 1 trials of PIPE-307 in healthy volunteers and have initiated a Phase 2 trial of PIPE-307 for the potential treatment of RRMS. J&J has announced its intention to initiate a Phase 2 trial for PIPE-307 for the treatment of depression in 2024. The results from our preclinical studies and the early clinical trials for these drug candidates may not be predictive of the results of the current clinical trials being conducted and any later-stage clinical trials conducted for these drug candidates. In addition, results of third-party studies, as well as our evaluations of third-party compounds, may not be predictive of results for our drug candidates. Drug candidates in clinical trials, including PIPE-791 and PIPE-307, may fail to show the desired safety and efficacy traits despite having progressed through preclinical studies and early-stage clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in advancing through the clinical trial process due to lack of efficacy or adverse safety profiles, notwithstanding earlier promising results. In addition, conclusions based on promising data from analyses of clinical results may be shown to be

incorrect in subsequent clinical trials that have pre-specified end points or may not be considered adequate by regulatory authorities. Even if the current clinical trials for PIPE-791 and PIPE-307 are completed as planned, we cannot be certain that their results will support the safety and efficacy requirements sufficient to pursue later clinical trials and eventually obtain regulatory approval, and, as a result, we may never generate commercial revenues from these drug candidates.

Clinical trial failure may result from a multitude of factors including flaws in trial design, dose selection, placebo effect, patient enrollment criteria, relatively smaller sample size in earlier clinical trials, and failure to demonstrate favorable safety or efficacy traits. As such, failure in clinical trials can occur at any stage of testing. A number of companies in the biopharmaceutical industry have suffered setbacks in the advancement of clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials, and we cannot be certain that we will not face similar setbacks. Based upon negative or inconclusive results, we may decide, or regulators may require us, to conduct additional clinical trials or preclinical studies. In addition, data obtained from clinical trials are susceptible to varying interpretations, and regulators may not interpret the data from these trials as favorably as we do, which may further delay, limit or prevent marketing approval. Furthermore, as more drug candidates within a particular class of drugs proceed through clinical development to regulatory review and approval, the amount and type of clinical data that may be required by regulatory authorities may increase or change. The outcome of preclinical testing and early clinical trials may not be predictive of the success of later clinical trials, and preliminary or interim results of a clinical trial do not necessarily predict final results. For example, PIPE-791 and/or PIPE-307 may fail to show the desired safety and efficacy in clinical development despite positive results in preclinical studies, or having successfully advanced through early-stage clinical trials. The failure of any of drug candidate to demonstrate safety and efficacy in any clinical trial or for any indication could negatively impact the perception of the use of this drug candidate to treat other indications and the perception of any other drug candidate we develop (and therefore hinder the ability to successfully move forward with the development of the drug candidate in other indications or the development of our other drug candidates) or cause regulatory authorities to require additional testing before approving any of the drug candidates we develop.

Our lead drug candidate, PIPE-791, and our partnered drug candidate, PIPE-307, are each in the early-stages of clinical development for each indication, and as a result, their risk of failure is high. We are unable to predict if PIPE-791 or PIPE-307 will prove safe or effective in humans for any indication or that any of our future drug candidates that advance into clinical trials will prove safe or effective in humans or will obtain marketing approval. If we or J&J are unable to complete current and future planned clinical trials for PIPE-791 and PIPE-307, respectively, due to safety concerns, or if the results of these trials are not satisfactory to convince regulatory authorities of their safety or efficacy, we and/or J&J will not be able to obtain marketing approval for commercialization. Even if we and/or J&J are able to obtain marketing approvals for PIPE-791 and PIPE-307, respectively, those approvals may be for indications that are not as broad as desired or may contain other limitations that would adversely affect our ability to generate revenue from sales of PIPE-791 or to generate royalties or achieve milestones from PIPE-307. Moreover, if we or J&J are not able to differentiate PIPE-791 and PIPE-307, respectively, against other approved products for the indications being targeted for PIPE-791 and PIPE-307, or if any of the other circumstances described above occur, our business would be materially harmed and our ability to generate revenue from these drug candidates would be severely impaired.

We may experience delays in initiating and completing any clinical trials that we intend to conduct, including our current clinical trials for PIPE-791 and PIPE-307, and we do not know whether our clinical trials will begin on time, need to be redesigned, enroll sufficient numbers of patients on time, or be completed on schedule, or at all. J&J will face similar concerns for any future clinical trials it conducts for PIPE-307. A clinical trial can be delayed for a variety of reasons, including delays related to:

- the FDA or comparable foreign regulatory authorities disagreeing as to the design or implementation of the clinical trial;
- obtaining regulatory approval to commence the clinical trial;
- reaching an agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- obtaining IRB approval at each site within the United States or independent ethics committee (IEC) or other approval at sites outside the United States;
- recruiting suitable patients to participate in the clinical trial in a timely manner and in sufficient numbers;
- having patients complete the clinical trial or return for post-treatment follow-up;
- imposition of a clinical hold by regulatory authorities, including as a result of unforeseen safety issues or side effects or failure of clinical trial sites or investigators to adhere to regulatory requirements or follow trial protocols;
- clinical sites or investigators deviating from the clinical trial protocol or dropping out of the clinical trial, potentially necessitating the addition of new sites or investigators;
- third-party contractors failing to comply with regulatory requirements or meet their contractual obligations in a timely manner, or at all, or deviating from the clinical trial protocol;
- addressing patient safety concerns that arise during the clinical trial, including a decision by the initiating party, regulatory authorities, or IRBs, IECs or other relevant entities to suspend or terminate the clinical trial;
- adding a sufficient number of clinical trial sites;
- increased or unforeseeable costs in conducting a clinical trial;
- timely manufacturing sufficient quantities of a drug candidate, and accessing sufficient quantities of other materials (e.g. placebo, equipment) for use in the clinical trial; and
- potential disruptions caused by public health emergencies (PHEs) such as COVID-19, including difficulties in initiating clinical sites, enrolling and retaining participants, diversion of healthcare resources away from clinical trials, travel or quarantine policies that may be implemented, and other factors.

A clinical trial may also be suspended or terminated by the initiating party, the IRBs or IECs of the institutions in which such clinical trial is being conducted, the FDA or other regulatory authorities, or recommended for termination by a Data and Safety Monitoring Board (DSMB) for such trial. Such authorities may impose a suspension or termination or recommend an alteration due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements, such as Good Clinical Practice (GCP) requirements, or the clinical trial protocols, inspection of the clinical trial operations or clinical trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions, or lack of adequate funding to continue the clinical trial. Further, J&J has the right to discontinue the clinical trial we are currently conducting for PIPE-307 if it has good faith concerns that such study presents safety risks or could present material adverse effects for the development or commercialization of PIPE-307 generally.

Furthermore, we rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and, while we have agreements governing their committed activities, we have limited influence over their actual performance, as described in the section titled "—Risks related to our dependence on third parties."

If the commencement or completion of any clinical trials for PIPE-791 or PIPE-307 is delayed, or if a clinical trial is terminated prior to completion, the commercial prospects of the applicable drug candidate could be harmed, and our ability to generate revenues or royalties from such drug candidate may be delayed. In addition, any delays in our clinical trials could increase our costs, slow the development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences could materially harm our business, financial condition and results of operations. In addition, many of the factors that may cause, or lead to, a delay in the commencement or completion of a clinical trial may also ultimately lead to the denial of regulatory approval of the applicable drug candidate.

Principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of these relationships to the FDA. The FDA may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or otherwise affected interpretation of a clinical trial. The FDA may therefore question the integrity of the data generated at the applicable clinical trial site, and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA and may ultimately lead to the denial of marketing approval of a drug candidate.

The regulatory approval processes of the FDA and comparable foreign regulatory authorities are unpredictable, lengthy, and time-consuming, and if we are ultimately unable to obtain regulatory approval for PIPE-791 or any other drug candidates that we develop or J&J is unable to obtain regulatory approval for PIPE-307, our business will be substantially harmed.

The time required to obtain approval by the FDA and comparable foreign regulatory authorities is unpredictable but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including the indication being studied and the substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval for an indication may change during a drug candidate's clinical development and may vary among jurisdictions. We have not obtained regulatory approval for PIPE-791, and J&J has not obtained regulatory approval for PIPE-307. It is possible that neither of these drug candidates or future drug candidates will receive the regulatory approvals required for commercialization. We are not permitted to market PIPE-791 or any other drug candidates that we develop in the United States until we receive approval of an NDA from the FDA. Similarly, J&J will not be permitted to market PIPE-307 in the United States until it receives approval of an NDA from the FDA.

Prior to obtaining approval to commercialize a drug candidate in the United States or abroad, the initiating party must demonstrate with substantial evidence from well-controlled clinical trials, and to the satisfaction of the FDA or comparable foreign regulatory authority, that such drug candidate is safe and effective for its intended indication. In addition, data obtained from preclinical trials and clinical trials are susceptible to varying interpretations, and regulatory authorities may not interpret this data as favorably as the initiating party, which may further delay, limit, or prevent development efforts, clinical trials, or marketing approval. For example, even if we believe the preclinical or clinical data for PIPE-791 in an indication is promising, such data may not be sufficient to support approval by the FDA and other comparable regulatory authorities for this indication. Furthermore, as more competing drug candidates within a class of drugs proceed through clinical development to regulatory review and approval, the

amount and type of clinical data that may be required by regulatory authorities may increase or change.

The FDA or any foreign regulatory authority can delay, limit, or deny approval of PIPE-791, PIPE-307 or any other drug candidates that we develop for any indication, or require us or J&J, as applicable, to conduct additional preclinical or clinical testing or abandon a program for many reasons, including:

- the FDA or comparable foreign regulatory authorities may disagree with the design or implementation of a clinical trial;
- the initiating party may be unable to demonstrate to the satisfaction of the FDA or comparable foreign regulatory authorities that a drug candidate is safe and effective for its proposed indication;
- serious and unexpected drug-related side effects experienced by participants in a clinical trial or by individuals using drugs similar to the drug candidate being studied in the clinical trial, or other products containing an active ingredient in such drug candidate;
- negative or ambiguous results from a clinical trial or results that may not meet the level of statistical significance required by the FDA or comparable foreign regulatory authorities for approval;
- the inability to demonstrate that a drug candidate's clinical and other benefits outweigh its safety risks;
- the FDA or comparable foreign regulatory authorities may disagree with the interpretation of data from preclinical studies or clinical trials;
- the data collected from clinical trials may not be acceptable or sufficient to support the submission of an NDA or other submission or to obtain regulatory approval in the United States or elsewhere, and the initiating party may be required to conduct additional clinical trials;
- the FDA's or the applicable foreign regulatory authority's disagreement regarding the formulation, the labeling, and/or the specifications of a drug candidate;
- the FDA or comparable foreign regulatory authorities may fail to approve or find deficiencies with the manufacturing processes or facilities of third-party manufacturers that produced the drug candidate for use in the clinical trials; and
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering the clinical data insufficient for approval.

Of the large number of drugs in development, only a small percentage successfully complete the regulatory approval processes and are commercialized. The lengthy approval process, as well as the unpredictability of future clinical trial results, may result in the failure of PIPE-791 and/or PIPE-307 to obtain the required regulatory approvals for commercialization in any indication, which would significantly harm our business, results of operations and prospects.

In addition, the FDA or the applicable foreign regulatory authority also may approve a drug candidate for a more limited indication or patient population than originally requested, and the FDA or applicable foreign regulatory authority may approve a drug candidate with a label that does not include the labeling claims necessary or desirable for the successful commercialization of that drug candidate. Any of the foregoing circumstances could materially harm the commercial prospects for the drug candidates we develop and our business.

We may not be successful in our efforts to identify and develop additional drug candidates or identify additional indications. Due to our limited resources and access to capital, we must prioritize development of a limited number of drug candidates, the choice of which may prove to be wrong and adversely affect our business.

We intend to explore the development of PIPE-791 in indications in addition to IPF and Progressive MS. We recently designated CTX-343, a peripherally restricted LPA1R antagonist, as a drug candidate. We also intend to continue to explore additional drug candidates based on our clinical translational approach and drug development efforts. In each case, we may fail to successfully identify additional indications for PIPE-791, develop CTX-343, or identify viable new drug candidates for clinical development. If we fail to identify additional indications for PIPE-791 or additional potential drug candidates, our business and growth plans could be materially harmed.

Research programs to develop additional indications for our existing drug candidates and to develop additional drug candidates based on our clinical translational approach requires substantial technical, financial, and human resources whether or not they are ultimately successful. Our research programs may initially show promise in identifying potential indications or drug candidates, yet fail to yield results for clinical development for several reasons, including:

- the research and development approach we use may not be successful in identifying potential indications or drug candidates;
- potential drug candidates may, after further study, be shown to have harmful or unexpected adverse effects or other characteristics that indicate they are unlikely to be effective drugs; or
- it may take greater human and financial resources than we possess to identify additional therapeutic opportunities for our drug candidates or to develop suitable potential drug candidates through internal research programs, thereby limiting our ability to develop, diversify, and expand our product portfolio.

Because we have limited financial and human resources, we intend to initially focus on research programs and drug candidates for a limited set of indications. As a result, we may forego or delay pursuit of opportunities with other drug candidates or for other indications that could have greater commercial potential or a greater likelihood of success. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities.

Accordingly, there can be no assurance that we will ever be able to identify additional therapeutic opportunities for our drug candidates or to develop suitable potential drug candidates through our internal research and development programs, which could materially adversely affect our future growth and prospects. We may focus our efforts and resources on potential drug candidates or other potential programs that ultimately prove to be unsuccessful.

We have and may continue to conduct future clinical trials outside of the United States. The FDA and other regulatory authorities or ethics committees may not accept data from such trials, in which case our development plans will be delayed, which could materially harm our business and financial condition.

We have previously conducted clinical trials outside of the United States, including our Phase 1 clinical trial of PIPE-307, which was conducted under authorization of the Australian Therapeutic Goods Administration (TGA) and the National Health and Medical Research Council (NHMRC) and a Phase 1b PET study of PIPE-307, which was conducted under the authorization of the Research Ethics Committee (REC) and the MHRA in the United Kingdom. We completed our Phase 1b PET clinical trial for PIPE-307 in RRMS in the United Kingdom, and we intend to conduct our Phase 1b PET clinical trials for PIPE-791 in IPF and Progressive MS in the United Kingdom. We may also conduct

additional clinical trials outside the United States in the future. Although the FDA and other foreign regulatory authorities may accept data from clinical trials conducted outside the United States, acceptance of this data is subject to certain conditions imposed by these regulators. For example, non-clinical toxicology studies for our Phase 1b PET study of PIPE-307 were performed in China that were not Good Laboratory Practice (GLP) compliant and, as China is not a signatory on the Organization for Economic Co-operation and Development (OECD), Mutual Acceptance of Data system, a multilateral agreement that allows participating countries to share the results of various non-clinical tests performed using OECD methods and principles, the non-clinical data were not considered acceptable to support the trial. While the Phase 1b was approved on the basis of clinical safety data, the MHRA stated that prior to Marketing Authorization Approval of PIPE-307 in the United Kingdom, an inspection or further evaluation could be triggered. Further, in cases where data from foreign clinical trials are intended to serve as the basis for marketing approval in the United States, the FDA will generally not approve the application on the basis of foreign data alone unless (i) the data are applicable to the U.S. population and U.S. medical practice; and (ii) the trials were performed by clinical investigators of recognized competence and pursuant to GCP regulations. In general, the patient population for any clinical trials conducted outside the United States must be representative of the population for whom we intend to label the drug candidate in the United States. Additionally, the FDA's clinical trial requirements, including sufficient size of patient populations and statistical powering, must be met. Many foreign regulatory authorities have similar approval requirements for clinical trials. In addition, such trials would be subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. Further, the FDA must be able to validate the data from the clinical trial through an onsite inspection if it deems such inspection necessary. In addition, when clinical trials are conducted only at sites outside of the United States, such trials may not be subject to IND review, meaning the FDA may not provide advance comment on the clinical protocols for the trials, and therefore there is an additional potential risk that the FDA could determine that the trial design or protocol for a non-U.S. clinical trial was inadequate, which would likely require an additional clinical trial in order to obtain FDA approval. If the FDA does not accept data from any clinical trials we conduct outside the United States, it would likely result in the need for additional clinical trials, which would be costly and time consuming and delay our drug development plans, which could materially harm our business, financial condition, results of operations and prospects.

Conducting clinical trials outside the United States also exposes us to additional risks, including risks associated with:

- additional foreign regulatory requirements;
- foreign exchange fluctuations;
- patient monitoring and compliance;
- compliance with foreign manufacturing, customs, shipment and storage requirements (including licensing requirements);
- cultural differences in medical practice and clinical research;
- diminished protection of intellectual property in some countries; and
- tax and local corporate structure considerations.

Enrollment and retention of patients in clinical trials is an expensive and time-consuming process and could be made more difficult or rendered impossible by multiple factors outside our control.

The timely completion of clinical trials in accordance with their protocols depends, among other things, on the ability to enroll a sufficient number of patients who remain in the trial until its conclusion.

We may encounter delays in enrolling, or be unable to enroll, a sufficient number of patients to complete any of our clinical trials, and even once enrolled, we may be unable to retain a sufficient number of patients to complete any of our trials. J&J may encounter similar difficulties in enrolling and retaining patients in any clinical trials it initiates for PIPE-307. Patient enrollment and retention in clinical trials depends on many factors, including:

- the patient eligibility criteria defined in the protocol;
- the size of the patient population required for analysis of the clinical trial's primary endpoints;
- the nature of the clinical trial protocol;
- the existing body of safety and efficacy data with respect to the drug candidate;
- the proximity of patients to clinical sites;
- the ability to recruit clinical trial investigators with the appropriate competencies, motivation and experience;
- clinicians' and patients' perceptions as to the potential risks and advantages of the drug candidate being studied in relation to other available therapies, including any new drugs or medical devices that may be approved for the indications being studied;
- the availability of approved products that treat the same indications as the drug candidate being studied;
- the proximity and availability of clinical trial sites for prospective patients;
- the ability to monitor patients adequately during and after treatment;
- competing clinical trials being conducted by other companies or institutions;
- the ability to obtain and maintain patient consents;
- the risk that patients enrolled in clinical trials will drop out of the trials before completion; and
- factors we may not be able to control that may limit patients, principal investigators or staff or clinical site availability, such as uncertain geopolitical conditions or pandemics, such as the recent COVID-19 pandemic.

In addition, any clinical trials we conduct for PIPE-791 or J&J conducts for PIPE-307 will compete with other clinical trials for drug candidates and medical devices that are in the same therapeutic areas as these drug candidates, and this competition could reduce the number and types of patients available to us or J&J, because some patients who might have opted to enroll in any PIPE-791 or PIPE-307 clinical trials may instead opt to enroll in a clinical trial being conducted by a competitor. Furthermore, any negative results we or J&J report in the clinical trials for PIPE-791 and PIPE-307 may make it difficult or impossible to recruit and retain patients in other clinical trials of that same drug candidate. Delays or failures in planned patient enrollment or retention may result in increased costs or program delays, which could have a harmful effect on the continued development of a drug candidate or could render further commercial development impossible.

Interim and preliminary "top-line" data from our clinical trials that we announce or publish from time to time may change as more patient data becomes available and is subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publicly disclose interim, top-line or preliminary data from the clinical trials we conduct, which is based on a preliminary analysis of then-available data. The final results from these clinical trials and any related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular trial. We also make assumptions,

estimations, calculations and conclusions as part of our analyses of data, and we may not have received or had the opportunity to fully and carefully evaluate all data. In addition, interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data becomes available. As a result, the top-line or preliminary results that we report may differ from future results of the same trial, or different conclusions or considerations may qualify such results, once additional data has been received and fully evaluated. Top-line or preliminary data also remains subject to audit and verification procedures that may result in the final data being materially different from the top-line or preliminary data we previously published. As a result, top-line and preliminary data should be viewed with caution until final data is available and published. Adverse differences between interim data and final data could significantly harm our business prospects. Further, disclosure of interim data by us or by our competitors could result in volatility in the price of our Class A common stock.

Further, others, including regulatory agencies, may not accept or agree with our assumptions, estimates, calculations, conclusions or analyses or may interpret or weigh the importance of data differently, which could impact the value of the particular program, the approvability or commercialization of the particular drug candidate or product and our company in general. In addition, the information we choose to publicly disclose regarding a particular clinical trial is based on what is typically extensive information, and you or others may not agree with what we determine is material or otherwise appropriate information to include in our disclosure.

If the interim, top-line or preliminary data that we report differ from actual results, or if others, including regulatory authorities, disagree with the conclusions reached, our ability to obtain approval for, and commercialize, the drug candidates we develop may be harmed, which could harm our business, financial condition, results of operations and prospects.

The administration of PIPE-791 and/or PIPE-307 may cause serious adverse events or undesirable side effects, which may halt their clinical development, delay or prevent marketing approval, or, if approved, require them to be taken off the market, include safety warnings, or otherwise limit their sales.

Serious adverse events or undesirable side effects caused by PIPE-791 or PIPE-307 could cause us or J&J, as applicable, or regulatory authorities to interrupt, delay, or halt the clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or other comparable foreign regulatory authorities for these drug candidates. Results of any clinical trial for PIPE-791 or PIPE-307 could reveal a high and unacceptable severity and prevalence of side effects. If unacceptable side effects arise in the development of any drug candidate, we or J&J, as applicable, the FDA, or the IRBs or IECs at the institutions in which a study is being conducted, or the DSMB, if constituted for a clinical trial, could recommend a suspension or termination of the clinical trial, or the FDA or comparable foreign regulatory authorities could prohibit the further development of or deny approval of a drug candidate for any or all targeted indications. In addition, drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete a clinical trial or result in potential product liability claims. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff. We or J&J, as applicable, may need to train medical personnel regarding the proper administration protocols for PIPE-791 and PIPE-307 and to understand the potential side effect profiles for these drug candidates. Inadequate training in recognizing or managing the potential side effects of PIPE-791 or PIPE-307 could result in patient injury or death. Any of these occurrences may harm our business, financial condition, results of operations and prospects significantly.

Additionally, if PIPE-791, PIPE-307 or any other drug candidate we develop receives marketing approval, and the use of the approved product causes undesirable side effects, a number of potentially significant negative consequences could result, including:

- regulatory authorities may suspend, withdraw, or limit approvals of such product, or seek an injunction against its manufacture or distribution, or take other market action in relation to such product;
- regulatory authorities may require a product recall, or we or J&J, as applicable, may decide to initiate a voluntary recall of the product;
- regulatory authorities may require additional warnings on the product's label, such as a "black box" warning or contraindications;
- additional restrictions may be imposed on the marketing of the product or the manufacturing processes for the product or any component thereof;
- we or J&J, as applicable, may be required to implement a Risk Evaluation and Mitigation Strategy (REMS) or create a medication guide outlining the risks of such side effects for distribution to patients;
- we or J&J, as applicable, may be required to conduct post-market studies or agree to post marketing commitments;
- we or J&J, as applicable, could be sued and held liable for harm caused to patients;
- the product may become less competitive; and
- our reputation may suffer.

Any of these events could prevent us or J&J, as applicable, from achieving or maintaining market acceptance of PIPE-791 or PIPE-307, if approved, and could significantly harm our business, financial condition, results of operations and prospects.

Changes in funding for the FDA and other government agencies could hinder their ability to hire and retain key leadership and other personnel, or otherwise prevent new products and services from being developed or commercialized in a timely manner, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

The market opportunities for the drug candidates we develop, if approved, may be smaller than we anticipate and, as a result, our commercial opportunities may be limited.

We are initially developing PIPE-791 for the treatment of IPF and Progressive MS. We are also developing PIPE-307, in collaboration with J&J. Our projections of the number of eligible patients for

each of these indications are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including scientific literature, patient foundations, and market research, and may prove to be incorrect. Further, new sources may reveal a change in the estimated number of eligible patients, and the number of patients may turn out to be lower than expected. Additionally, the potentially addressable patient populations for these programs or our future drug candidates may be limited. For example, even if we obtain FDA approval for PIPE-791 for the treatment of IPF or Progressive MS, the target population approved by the FDA may be more limited than what we currently anticipate. Even if we obtain significant market share for any drug candidate, if approved, if the potential target populations are smaller, we may never achieve profitability without obtaining marketing approval for additional indications.

We have never obtained marketing approval for any drug candidate and we may be unable to obtain, or may be delayed in obtaining, marketing approval for any drug candidate.

We have never obtained marketing approval for any drug candidate. It is possible that the FDA or other foreign regulatory authority may refuse to accept for substantive review any NDAs or similar submission that we submit for PIPE-791 or that J&J may submit for PIPE-307. The FDA may also conclude after review of the data that we or J&J submit that our applications are insufficient to obtain marketing approval for PIPE-791 or PIPE-307, respectively. If the FDA, or other foreign regulatory authority does not accept or approve any NDAs submitted for PIPE-791 or PIPE-307, it may require that we or J&J conduct additional clinical, preclinical, manufacturing validation or other studies and submit that data before it will reconsider the application. Depending on the extent of these or any other required studies, approval of any NDA or similar submission for PIPE-791 or PIPE-307 may be delayed or, in the case of PIPE-791, require us to expend more resources than we have available. It is also possible that additional studies, if performed and completed, may not be considered sufficient by the FDA or other foreign regulatory authority to approve any NDAs or similar submission submitted for PIPE-791 or PIPE-307. Any delay in obtaining, or an inability to obtain, marketing approvals would prevent us from commercializing PIPE-791 and J&J from commercializing PIPE-307, and prevent us from generating revenues from these drug candidates to support our continued operations and plans. If any of these outcomes occur, our business, financial condition and results of operations would be significantly harmed.

Even if we obtain FDA approval for a drug candidate in the United States, we may never obtain approval for the drug candidate in any other jurisdiction or commercialize the drug candidate in the United States or in any other jurisdiction, which would limit our ability to realize its full market potential.

In order to market any product in a particular jurisdiction, we must establish and comply with numerous and varying regulatory requirements regarding safety and efficacy on a country-by-country basis. Approval by the FDA in the United States does not ensure approval by comparable regulatory authorities in other countries or jurisdictions nor does it ensure that we will be able to successfully commercialize such approved drug candidate in the United States or in other jurisdictions. However, the failure to obtain approval in one jurisdiction may negatively impact our ability to obtain approval elsewhere. In addition, clinical trials conducted in one country may not be accepted by regulatory authorities in other countries, and regulatory approval in one country does not guarantee regulatory approval in any other country. Further, successful commercialization in the United States does not guarantee successful commercialization in other jurisdictions.

Approval processes vary among countries and can involve additional product testing and validation and additional administrative review periods. Seeking foreign regulatory approval could result in difficulties and increased costs for us and require additional preclinical studies or clinical trials, which could be costly and time-consuming. Regulatory requirements can vary widely from country to country

and could delay or prevent the introduction of our products in those countries. We do not have any drug candidates approved for sale in any jurisdiction, including in international markets, and we do not have experience in obtaining regulatory approval in international markets. If we fail to comply with regulatory requirements in international markets or to obtain and maintain required approvals, or if regulatory approvals in international markets are delayed, our target market will be reduced and we will be unable to realize the full market potential of any product we develop.

Even if we obtain regulatory approval for any drug candidate, we will still face extensive and ongoing regulatory requirements and obligations, which may result in significant additional expense, and any drug candidates, if approved, may face future development and regulatory difficulties.

Any drug candidate for which we obtain marketing approval, along with the manufacturing processes, post-approval clinical data, labeling, packaging, distribution, adverse event reporting, monitoring, storage, recordkeeping, export, import, and advertising and promotional activities for such product, among other things, will be subject to extensive and ongoing requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, establishment registration and drug listing requirements, continued compliance with current Good Manufacturing Practice (cGMP) and GCP requirements for any clinical trials conducted post-approval, requirements relating to manufacturing, quality control, quality assurance, and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping and GCP and requirements for any clinical trials that we conduct post-approval.

Even if marketing approval of a drug candidate is granted, the approval may be subject to limitations on the indicated uses for which the drug candidate may be marketed or to the conditions of approval, including a requirement to implement a REMS. If a drug candidate receives marketing approval, the accompanying label may limit the approved indicated use of the product, which could limit sales of the product. The FDA, or comparable foreign regulators, may also require costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of a product. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use, and if we market our products for uses beyond their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the Federal Food, Drug, and Cosmetic Act (FDCA) relating to the promotion of prescription drugs, may lead to FDA enforcement actions and investigations alleging violations of federal and state healthcare fraud and abuse laws, as well as state consumer protection laws.

In addition, later discovery of previously unknown adverse events or other problems with our products, manufacturers, or manufacturing processes or failure to comply with regulatory requirements, may yield various results, including:

- restrictions on manufacturing such products;
- restrictions on the labeling or marketing of products;
- restrictions on product distribution or use;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters or untitled letters;
- refusal to approve pending applications or supplements to approved applications that we submit;

- recalls or market withdrawals of products;
- fines, restitution, or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure; and
- injunctions, consent decrees, or the imposition of civil or criminal penalties.

Further, the policies from the FDA or other comparable regulatory authorities may change, and additional government regulations may be enacted that could prevent, limit, or delay regulatory approval of a drug candidate. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, which would adversely affect our business, prospects, and ability to achieve or sustain profitability.

We also cannot predict the likelihood, nature, or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. The policies of the FDA and of other comparable regulatory authorities may change and additional government regulations may be enacted that could prevent, limit, or delay regulatory approval of a drug candidate. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained, and we may not achieve or sustain profitability, which would adversely affect our business, prospects, financial condition, and results of operations. Furthermore, noncompliance by us or any collaborator with regulatory requirements, including safety monitoring or pharmacovigilance, may also result in significant financial penalties, which would adversely affect our business.

We may seek a breakthrough therapy and/or orphan drug designation for PIPE-791 or future drug candidates, but we might not receive such designations, and even if we do, we may not maintain such designations, and such designations may not lead to faster development, regulatory review or approval, and will not increase the likelihood that the drug candidate will receive marketing approval.

We may seek a breakthrough therapy and/or orphan drug designation for PIPE-791, or other drug candidates we may develop. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For drugs that have been designated as breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens. Drugs designated as breakthrough therapies by the FDA may also be eligible for priority review if supported by clinical data at the time the NDA is submitted to the FDA. We may also seek fast track designation for some of our drug candidates. If a drug is intended for the treatment of a serious or life-threatening condition and preclinical or clinical data demonstrates the potential to address an unmet medical need, the drug sponsor may apply for fast track designation.

Regulatory authorities in some jurisdictions, including the United States, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act of 1983, the FDA may designate a drug as an orphan drug if it is a drug intended to treat a rare disease or condition, which is

generally defined as a patient population of fewer than 200,000 individuals in the United States, or a patient population of greater than 200,000 individuals in the United States but for which there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the United States alone. In the United States, orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and user fee waivers. After the FDA grants orphan drug designation, the generic identity of the drug and its potential orphan use are disclosed publicly by the FDA. Orphan drug designation, however, neither shortens the development time or regulatory review time of a drug nor gives the drug any advantage in the regulatory review or approval process. Generally, if a drug with an orphan drug designation subsequently receives the first marketing approval for the targeted indication, then the drug is entitled to a seven-year period of marketing exclusivity that precludes the applicable regulatory authority from approving another marketing application for the same drug for the same indication for the exclusivity period except in limited situations, such as a showing of clinical superiority to the product with orphan drug exclusivity or where the manufacturer is unable to assure sufficient product quantity. For purposes of small molecule drugs, the FDA defines “same drug” as a drug that contains the same active moiety and is intended for the same use as the drug in question. A designated orphan drug may not receive orphan drug exclusivity if it is approved for a use that is broader than the indication for which it received orphan drug designation.

The FDA has broad discretion whether or not to grant breakthrough therapy, fast track and/or orphan drug designation to any drug candidate. Accordingly, even if we believe that a drug candidate meets the criteria for designation as a breakthrough therapy or orphan drug, the FDA may disagree and instead determine not to make such a designation. Even if we receive breakthrough therapy and/or orphan drug designation, the receipt of such designation may not result in a faster development or regulatory review or approval process compared to drugs considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if a drug candidate qualifies as a breakthrough therapy or orphan drug, the FDA may later decide that it no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. Even if we were to obtain orphan drug designation for a drug candidate, we may not obtain orphan exclusivity and that exclusivity may not effectively protect the drug from the competition of different drugs for the same condition, which could be approved during the exclusivity period. Additionally, after an orphan drug is approved, the FDA could subsequently approve another application for the same drug for the same indication if the FDA concludes that the later drug is shown to be safer, more effective or makes a major contribution to patient care. Orphan drug exclusive marketing rights in the United States also may be lost if the FDA later determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the drug to meet the needs of patients with the rare disease or condition. The failure to obtain a breakthrough therapy, fast track and/or orphan drug designation or admission for any drug candidates we may develop, the inability to maintain that designation for the duration of the applicable period, or the inability to obtain or maintain orphan drug exclusivity could reduce our ability to make sufficient sales of the applicable drug candidate to balance our expenses incurred to develop it, which would have a negative impact on our operational results and financial condition. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast track designation alone does not guarantee qualification for the FDA’s priority review procedures.

We may seek approval of our drug candidates, where applicable, under the FDA's accelerated approval pathway. This pathway, even if granted for PIPE-791 or any other future drug candidates, may not lead to a faster development, regulatory review or approval process or launch and it does not increase the likelihood that our drug candidates will receive marketing approval in the United States.

We may seek accelerated approval of PIPE-791 and for future drug candidates from the FDA. A product may be eligible for accelerated approval if it treats a serious or life-threatening condition and generally provides a meaningful advantage over available therapies. In addition, it must demonstrate an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, or IMM, that is reasonably likely to predict an effect on IMM or other clinical benefit. If granted, accelerated approval is usually contingent on the sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the drug's clinical benefit. Under the Food and Drug Omnibus Reform Act of 2022 (FDORA), the FDA is permitted to require, as appropriate, that a post-approval confirmatory study or studies be underway prior to approval or within a specified time period after the date of approval for a product granted accelerated approval. FDORA also requires sponsors to send updates to the FDA every 180 days on the status of such studies, including progress toward enrollment targets, and the FDA must promptly post this information publicly. FDORA also gives the FDA increased authority to withdraw approval of a drug or biologic granted accelerated approval on an expedited basis if the sponsor fails to conduct such studies in a timely manner, send the necessary updates to the FDA, or if such post-approval studies fail to verify the drug's predicted clinical benefit. Under FDORA, the FDA is empowered to take action, such as issuing fines, against companies that fail to conduct with due diligence any post-approval confirmatory study or submit timely reports to the agency on their progress. In addition, the FDA currently requires, unless otherwise informed by the agency, pre-approval of promotional materials for products receiving accelerated approval, which could adversely impact the timing of the commercial launch of the product. Thus, even if we do seek to utilize the accelerated approval pathway, we may not be able to obtain accelerated approval and, even if we do, we may not experience a faster development, regulatory review or approval process for that product. In addition, receiving accelerated approval does not assure that the product's accelerated approval will eventually be converted to a traditional approval.

Potential product liability lawsuits against us could cause us to incur substantial liabilities and limit commercialization of any products that we may develop.

The use of any drug candidate in our clinical trials and the sale of any products for which we obtain marketing approval exposes us to the risk of product liability claims. Product liability claims might be brought against us by patients, healthcare providers, pharmaceutical companies or others selling or otherwise coming into contact with our products. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated adverse effects. If we cannot successfully defend against product liability claims, we could incur substantial liability and costs. In addition, regardless of merit or eventual outcome, product liability claims may result in:

- impairment of our business reputation and significant negative media attention;
- withdrawal of participants from our clinical trials;
- significant costs to defend the litigation;
- distraction of management's attention from our primary business;
- substantial monetary awards to patients or other claimants;
- inability to commercialize a drug candidate;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;

- decreased market demand for any product; and
- loss of revenue.

The product liability insurance we currently carry, and any additional product liability insurance coverage we acquire in the future, may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. If we obtain marketing approval for any drug candidate, we intend to acquire insurance coverage to include the sale of commercial products; however, we may be unable to obtain product liability insurance on commercially reasonable terms or in adequate amounts. A successful product liability claim, or series of claims, brought against us could cause our share price to decline and, if judgments exceed our insurance coverage, could adversely affect our business, financial condition and results of operation, including preventing or limiting the commercialization of any drug candidates we develop.

Risks Related to our Financial Position and Need for Additional Capital

We have incurred significant operating expenses since inception and anticipate that our operating expenses will continue to significantly increase for the foreseeable future. As a result, we may be unable to sustain profitability, and if we are unable to achieve sustained profitability, the market value of our common stock will likely decline.

We are a clinical-stage biotechnology company with a limited operating history. To date, we have devoted our efforts to research and development, building our operations, establishing and maintaining our intellectual property portfolio, raising capital, identifying drug candidates for commercialization, conducting preclinical studies and clinical trials and negotiating and entering into the J&J License Agreement. As a result, we have incurred significant operating expenses since our formation. We had a net loss of $24.3 million for the year ended December 31, 2022. We had net income of $22.7 million for the year ended December 31, 2023. As of December 31, 2023, we had an accumulated deficit of $75.1 million.

Investment in pharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that any potential drug candidate will fail to advance through clinical development and eventually gain regulatory approval and become commercially viable. We expect to incur significant additional operating losses for the next several years as we continue to develop PIPE-791 in multiple indications, complete the Phase 2 clinical trial for PIPE-307 in RRMS, and endeavor to advance the development of other drug candidate we identify through our preclinical development efforts, complete preclinical studies and clinical trials, seek regulatory approval and prepare to commercialize any approved product. The costs of advancing drug candidates into each clinical phase tend to increase substantially over the duration of the clinical development process. Therefore, the total costs to advance any drug candidate to marketing approval in even a single jurisdiction are substantial.

We expect our operating expenses to increase substantially for the foreseeable future as we:

- complete our current and planned future clinical trials for PIPE-791 in IPF and Progressive MS;
- complete our current clinical trial for PIPE-307 in RRMS;
- expand our product development programs, and develop other drug candidates;
- seek regulatory approvals for PIPE-791, and any other drug candidates we develop;
- secure a commercial manufacturing source and supply chain capacity sufficient to produce commercial quantities of any drug candidate for which we obtain regulatory approval;

- establish a sales, marketing and distribution infrastructure to commercialize any drug candidates for which we may obtain marketing approval;
- maintain, expand, and protect our intellectual property portfolio;
- hire additional clinical, scientific, commercial, operational, financial and management personnel, including personnel to support operations as a public company; and
- acquire or in-license other drug candidates or technologies.

Furthermore, our ability to successfully develop, obtain regulatory approval for and commercialize any drug candidate and generate product revenue is subject to substantial additional risks and uncertainties, as described under "—Risks related to development, clinical testing, and regulatory approval" and "—Risks related to commercialization." As a result, we expect to continue to incur significant operating expenses and negative cash flows for the foreseeable future. These operating expenses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders' equity and working capital. The amount of our future operating expenses, and any resulting net losses, will depend, in part, on the rate of future growth of our operating expenses and our ability to generate revenues. If we are unable to develop and commercialize one or more drug candidates or if revenues from any product that receives marketing approval or any milestone payments or royalties we receive under the J&J License Agreement are insufficient, we will not be able to maintain profitability. Even if we successfully commercialize one or more of our drug candidates or J&J successfully commercializes PIPE-307, we may continue to incur substantial research and development and other expenses to identify and develop additional drug candidates. We may not be able to achieve sustained profitability or meet outside expectations for our profitability. If we are unable to achieve sustained profitability or to meet outside expectations for our profitability, we will not be able to implement our business plans and the value of our common stock will be materially adversely affected and you may suffer substantial losses in your investment.

We have a limited operating history and the drug candidates we have developed are in the early stages of clinical development, which may make it difficult to evaluate the prospects for our future viability.

We began operations in 2012. Our operations to date have been limited to research and development, building our operations, establishing and maintaining our intellectual property portfolio, raising capital, identifying drug candidates for commercialization, conducting preclinical studies and clinical trials and negotiating and entering into the J&J License Agreement. PIPE-791 and PIPE-307 are in the early stages of clinical development. We have not obtained marketing approval for any drug candidate, and we have not demonstrated the ability to successfully manufacture a commercial-scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, predictions about our future success or viability may not be as accurate as they could be if we had a longer operating history or a history of successfully developing and commercializing pharmaceutical products.

In addition, as a business with a limited operating history, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown challenges. We will eventually need to transition from a company with a preclinical and early clinical stage focus to a company capable of supporting later stage clinical trials, regulatory approvals and manufacturing and commercial activities. We may not be successful in such a transition and, as a result, our business may be adversely affected.

As we continue to build our business, we expect our financial condition and operating results may fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, the results of any quarterly or annual period are not necessarily indicative of future operating performance.

Even if this offering is successful, we will require significant additional capital to complete the development and commercialization of PIPE-791 and the other drug candidates we select for development.

We expect to spend substantial funds to complete the development of, seek regulatory approvals for and, if approved, commercialize PIPE-791 in IPF and Progressive MS. We will also incur costs to complete our Phase 2 clinical trial for PIPE-307 in RRMS and, could potentially incur significant costs related to PIPE-307 to the extent we have the opportunity and decide to opt-in to fund a portion of all Phase 3 development costs for PIPE-307. We also expect to spend substantial funds to identify and develop new drug candidates based on our clinical translational approach and development efforts. Based on these plans, even with the net proceeds from this offering, we will require significant additional capital to complete these development activities and implement our commercialization and business plans, which we may acquire through additional equity offerings, debt financings, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements or other sources. Adequate additional financing may not be available to us on acceptable terms, or at all. If events or circumstances occur such that we do not obtain additional funding, we may need to delay, reduce or eliminate our product development or future commercialization efforts, which could have a material adverse effect on our business, results of operations or financial condition. Further, if we raise funds through future licensing or other similar commercial arrangements with third parties, similar to the J&J License Agreement, we may be required to relinquish valuable rights to our technology, future revenue streams, research programs or drug candidates or may be required to grant licenses on terms that may not be favorable to us and/or may reduce the value of our common stock. Our failure to raise capital as and when needed would have a negative effect on our financial condition and our ability to pursue our business strategy. In addition, attempting to secure additional financing may divert the time and attention of our management from day-to-day activities and harm our development efforts.

Our future funding requirements, both near and long-term, will depend on many factors, including, but not limited to:

- the initiation, progress, timing, costs and results of our clinical trials through all phases of development for PIPE-791 in IPF and Progressive MS and any other drug candidates we select for development;
- costs to complete our Phase 2 clinical trial for PIPE-307 in RRMS and potential additional costs related to PIPE-307 to the extent we have the opportunity and decide to opt-in to fund a portion of all Phase 3 development costs for PIPE-307 in any indication;
- the outcome, timing and cost of meeting regulatory requirements established by the FDA and other comparable foreign regulatory authorities, including any additional clinical trials required by the FDA or other comparable foreign regulatory authorities;
- the willingness of the FDA and other comparable foreign regulatory authorities to accept our clinical trial designs, as well as data from our completed and planned clinical trials and preclinical studies, as the basis for review and approval of PIPE-791 in IPF and/or Progressive MS and any other drug candidates we select for development;
- the costs related to maintaining our collaboration with J&J for the development of PIPE-307;
- the cost of filing, prosecuting, defending, and enforcing our patent claims and other intellectual property rights;
- the cost of defending potential intellectual property disputes, including patent infringement actions brought by third parties against us;
- the effect of competing technological and market developments;

- the cost and timing of completion of commercial-scale manufacturing activities;
- the costs of operating as a public company;
- the cost of making royalty, milestone or other payments under current and any future in-license agreements;
- the extent to which we in-license or acquire other drug candidates, products, technologies or businesses;
- the cost of establishing sales, marketing and distribution capabilities for PIPE-791 and any our drug candidates we develop, if approved; and
- the initiation, progress, and timing of our commercialization of any drug candidate for which we obtain regulatory approval.

Based upon our current operating plan, we believe that our existing cash, cash equivalents, and marketable securities as of the date of this prospectus, together with the estimated net proceeds from this offering, will be sufficient to fund our projected operations through at least . This estimate and our expectation regarding the costs to advance the clinical development of our LPA1R antagonist program, including the completion of our Phase 1b PET imaging trial and Phase 2 clinical trials for our lead drug candidate, PIPE-791, in IPF and Progressive MS, and to complete our existing Phase 2 clinical trial of PIPE-307 for the potential treatment of RRMS and to continue to develop additional drug candidates we select for development, as well as the expected results of our clinical trials, are based on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect, or our clinical trials, including our existing and planned clinical trials for PIPE-791, may not achieve the results we expect and may be more expensive, time consuming or difficult to design or implement than we currently anticipate. Our operating runway set forth above also assumes we do not receive any additional payments under our collaboration with J&J for the development of PIPE-307. Changing circumstances, including any unanticipated expenses or development or clinical setbacks, could cause us to consume capital significantly faster than we currently anticipate, and we may need to spend more than currently expected because of circumstances beyond our control. Because the length of time and scope of activities associated with successful development of PIPE-791 in each indication and any other drug candidate we develop and associated with J&J's successful development of PIPE-307 and our resulting receipt of milestone or royalty payments is highly uncertain, we are unable to estimate the actual funds we will require for development, obtaining regulatory approval and marketing and commercialization activities for PIPE-791 and the additional drug candidates we select to develop. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us, we may have to significantly delay, scale back or discontinue the development or commercialization of PIPE-791, or any other drug candidate we develop, or potentially discontinue operations. Further, we may not have sufficient funds, if we have the opportunity, to opt-in to fund a portion of all Phase 3 development costs for PIPE-307 in exchange for higher royalty rates.

Raising additional capital may cause dilution to our stockholders, including purchasers of our common stock in this offering, restrict our operations or require us to relinquish rights to our technologies or drug candidates.

Until such time, if ever, as we can generate substantial revenues, we may finance our cash needs through a combination of equity offerings, debt financings, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements or other sources. In addition, we may seek additional capital due to favorable market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans.

To the extent that we raise additional capital through the sale of equity or other securities convertible, exercisable or exchangeable for our common stock, our existing stockholders' ownership

interests will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. In addition, debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through additional collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, like our J&J License Agreement, we may be required to relinquish valuable rights to our technologies, intellectual property, future revenue streams or drug candidates or grant licenses on terms that may not be favorable to us. Furthermore, any capital raising efforts may divert our management from their day-to-day activities, which may adversely affect our ability to advance research programs, product development activities or drug candidates. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate drug candidate development or future commercialization efforts.

Risks Related to our Existing Collaboration Agreement and any Collaboration Agreements we may enter into in the Future

If the J&J License Agreement does not result in the successful development of PIPE-307, our business, financial condition and results of operations will be harmed.

In February 2023, we entered into the J&J License Agreement with J&J, pursuant to which we received a non-refundable, non-creditable $50.0 million payment in exchange for granting J&J exclusive worldwide rights to develop, manufacture, and commercialize products containing PIPE-307. Under the J&J License Agreement, we are also eligible to receive future milestone payments and tiered royalties in the low-double digit to high-teen percent range on net sales of products containing PIPE-307. J&J is generally responsible for all development, manufacturing, and commercialization activities for PIPE-307. We are conducting, at our own expense, a Phase 2 clinical trial of PIPE-307 for the potential treatment of RRMS, after which J&J may, in its sole discretion, further develop PIPE-307 for such indication. Therefore, even if our Phase 2 clinical trial of PIPE-307 shows positive results, J&J may decide not to further develop PIPE-307 for the potential treatment of RRMS. Further, J&J may prevent or discontinue such clinical trial if it has good faith concerns that such study presents safety risks or could present material adverse effects for the development or commercialization of PIPE-307 generally. Upon J&J deciding to conduct a first Phase 3 clinical trial for a product using PIPE-307, we have an opt-in right to fund a portion of all Phase 3 development costs and other subsequent development costs for PIPE-307 in exchange for increased royalties.

The success of our collaboration with J&J is dependent on J&J successfully completing clinical trials, obtaining regulatory approval and ultimately successfully manufacturing and commercializing PIPE-307. J&J's activities related to PIPE-307, and the benefits of the collaboration to us, are subject to all the risks relating to product development, regulatory approval and commercialization described in "Risks related to development, clinical testing, and regulatory approval" set forth above. In addition, our collaboration with J&J poses additional risks to us, including the following:

- J&J has significant discretion in determining the efforts and resources that it will apply to the collaboration;
- J&J may not perform its obligations as expected;
- the clinical trials conducted as part of the collaboration may not be successful;
- J&J may not pursue development and/or commercialization of PIPE-307 even if it achieves regulatory approval or may elect not to continue or renew development or commercialization of PIPE-307 based on clinical trial results, changes in J&J's strategic focus or available funding or external factors, such as an acquisition, that divert resources or create competing priorities;

- J&J may delay clinical trials for PIPE-307, provide insufficient funding for its clinical trials, stop a clinical trial or abandon PIPE-307, repeat or conduct new clinical trials or require a new formulation of PIPE-307 for clinical testing;
- we have limited access to, or are restricted from disclosing, certain information regarding J&J's development and commercialization of PIPE-307 as well as our own Phase 2 clinical trial of PIPE-307 for the potential treatment of RRMS and, consequently, we will have limited ability to inform our stockholders about the status or results of the clinical development of PIPE-307, including our existing Phase 2 clinical trial of PIPE-307 and any trial that J&J conducts with PIPE-307;
- J&J could independently develop, or develop with third parties, products that compete directly or indirectly with PIPE-307 if it believes that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than PIPE-307;
- J&J may view any drug candidates we develop by ourselves, or in collaboration with another third party, as competitive with its other drug candidates or products, which may cause J&J to cease to devote resources to the development and commercialization of PIPE-307;
- even if it obtains marketing approval for PIPE-307, J&J may not commit sufficient resources to the marketing, distribution and commercialization of PIPE-307;
- disagreements with J&J, including disagreements over proprietary rights, contract interpretation or the preferred course of development of any programs or drug candidates, may cause delays or termination of the research, development, manufacture or commercialization of PIPE-307, may lead to additional responsibilities for us with respect to the development of PIPE-307 or may result in litigation or arbitration, any of which would be time-consuming and expensive;
- J&J may not properly maintain or defend our intellectual property rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property or proprietary information or expose us to potential litigation;
- disputes may arise with J&J with respect to the ownership of intellectual property developed pursuant to the collaboration;
- J&J may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability; and
- J&J may terminate the collaboration for convenience and, if terminated, we could be required to raise additional capital to pursue further development or commercialization of PIPE-307.

If our collaboration with J&J does not result in the successful development and commercialization of PIPE-307, or if J&J terminates its agreement with us, we may not receive any future milestone or royalty payments under the collaboration. If we do not receive the payments we expect under our collaboration with J&J, our business, financial condition and operating results will be adversely impacted and we may need additional resources to continue to develop PIPE-791 and our other drug candidates.

We may not recognize the financial and other benefits of any additional collaborations or strategic alliances that we may enter into in the future for the development and commercialization of our drug candidates.

The clinical trial and regulatory approval process and the potential manufacturing and commercialization of PIPE-791 in multiple indications and the other drug candidates we select for development will require the investment of substantial additional capital. In addition to the J&J License

Agreement, we may seek and form additional strategic alliances, or create joint ventures or collaborations or enter into acquisitions or additional licensing arrangements with third parties that we believe will help to accelerate or augment our clinical trial, regulatory approval, manufacturing and commercialization efforts with respect to PIPE-791 and any future drug candidates that we elect to develop. These transactions can entail numerous operational and financial risks, and we cannot be certain that we will achieve the financial and other benefits that led us to enter into such arrangements.

We will face significant competition in seeking appropriate collaborators. We may not be successful in our efforts to establish future strategic partnerships or other alternative arrangements for our drug candidates because they may be deemed to be at too early of a stage of development for collaborative effort and third parties may not view our drug candidates as having the requisite potential to demonstrate safety and efficacy. Our ability to reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and expertise, the terms and conditions of the proposed collaboration and the proposed collaborator's evaluation of a number of factors. Those factors may include the following:

- the design or results of clinical trials for the drug candidate;
- the likelihood of approval of the drug candidate by the FDA or comparable foreign regulatory authorities;
- the potential market for the drug candidate;
- the costs and complexities of manufacturing and delivering such drug candidate to patients;
- the potential of competing products;
- the existence of uncertainty with respect to our ownership of, or the intellectual protection for, the drug candidate, which can exist if there is a challenge to such ownership or intellectual property rights without regard to the merits of the challenge; and
- industry and market conditions generally.

The collaborator may also consider alternative drug candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us for our drug candidate. We may also be restricted under any license agreements from entering into agreements on certain terms, or at all, with potential collaborators.

As a result, we may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we do not have sufficient funds, we may not be able to further develop our drug candidates or bring them to market and generate product revenue without collaborations. If we fail to enter into collaborations and do not have sufficient funds or expertise to undertake the necessary development and commercialization activities, we may not be able to further develop our drug candidates or bring them to market and generate product sales revenue, which would harm our business prospects, financial condition and results of operations.

Even if we do enter into a collaboration agreement for PIPE-791 or another drug candidate we select for development, we may not recognize the potential financial and other benefits of the collaboration. When we collaborate with a third party, we relinquish some or all of the control of the clinical trial and regulatory approval process and the potential manufacturing and commercialization of the drug candidate. In addition, all of the risks relating to product development, regulatory approval and commercialization summarized and described in this prospectus also apply to the activities of our collaborators. Further, the collaborator may terminate its agreement with us. As a result, a collaboration may not result in the successful development and commercialization of our drug candidate, and we may not receive any milestone or royalty payments under the collaboration. If we do not receive the payments we expect under these agreements, our development of drug candidates could be delayed and we may need additional resources to develop our drug candidates.

We may seek to grow our business through in-licensing transactions or otherwise by acquiring drug candidates or complementary products, technologies or businesses. The failure to properly identify these drug candidates, products, technologies or businesses, as well as the failure to successfully complete transactions or to integrate any such drug candidates, products, technologies or businesses that we do in-license or acquire with our existing business, could harm our business, financial condition and operating results.

In the future, we may enter into transactions to in-license or acquire rights to drug candidates or to complementary products or technologies, or to acquire other businesses. Even if we do identify suitable candidates, we may not be able to enter into such transactions on favorable terms, or at all. Any such in-licenses or acquisitions of drug candidates may not result in our ability to successfully develop and obtain regulatory approval for such drug candidates. In addition, any such transactions may not strengthen our financial position or our competitive position or commercialization efforts, and these transactions may be viewed negatively by analysts, investors, customers, or other third parties with whom we have relationships. We may decide to use our available cash resources or incur debt in connection with an in-licensing or acquisition transaction, be required to make significant milestone or royalty payments, or issue our common stock or other equity securities as consideration for the transaction, which would reduce our operating runway or the percentage ownership of our existing stockholders. We could incur losses resulting from undiscovered liabilities of the in-licensed or acquired drug candidate, product technology or the acquired business that are not covered adequately by the indemnification we may obtain from the licensor or seller of such assets or business. In addition, we may not be able to successfully integrate any acquired drug candidates, personnel, technologies, and operations into our existing business in an effective, timely, and nondisruptive manner. Such transactions may also divert management attention from day-to-day responsibilities, increase our expenses, and reduce our cash available for operations and other uses. We cannot predict the number, timing or size of future in-licenses or acquisitions or the effect that any such transactions might have on our business, financial condition and operating results.

Risks Related to our Intellectual Property

If we are unable to obtain, maintain and enforce intellectual property protection for our technology and drug candidates or if the scope of the intellectual property protection we obtain is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize and generate revenues from our drug candidates may be adversely affected.

Our success depends in large part on our ability to obtain, maintain and enforce intellectual property protection for the technology and drug candidates we develop. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our technologies and drug candidates that are important to our business and by in-licensing intellectual property related to such technologies and drug candidates. If we are unable to obtain or maintain patent protection with respect to any proprietary technology or drug candidate, our business, financial condition, results of operations and prospects could be materially harmed.

The patent prosecution process is expensive, time-consuming, and complex, and we may not be able to file, prosecute, maintain, defend, or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, in some circumstances, we do not have the right to control the preparation, filing, and prosecution of patent applications, or to maintain, enforce, and defend the patents, covering technology that we license from third parties. Therefore, these in-licensed patents, and applications may not be prepared, filed, prosecuted, maintained, defended, and enforced in a manner consistent with the best interests of our business.

The patent position of pharmaceutical and biotechnology companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, the scope of patent protection outside of the United States is uncertain and laws of foreign countries may not protect our rights to the same extent as the laws of the United States or vice versa. For example, European patent law restricts the patentability of methods of treatment of the human body more than U.S. law does. With respect to both owned and in-licensed patent rights, we cannot predict whether the patent applications we and our licensors are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection from competitors. Further, we may not be aware of all third-party intellectual property rights potentially relating to our drug candidates. In addition, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not published at all. Therefore, neither we nor our licensors can know with certainty whether either we or our licensors were the first to make the inventions claimed in the patents and patent applications we own or in-license now or in the future, or that either we or our licensors were the first to file for patent protection of such inventions. As a result, the issuance, scope, validity, enforceability, and commercial value of our owned and in-licensed patent rights are uncertain. Moreover, our owned and in-licensed pending and future patent applications may not result in patents being issued which protect our technology and drug candidates, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the United States and other countries may diminish the value of our patents and our ability to obtain, protect, maintain, defend, and enforce our patent rights, narrow the scope of our patent protection and, more generally, could affect the value or narrow the scope of our patent rights.

Moreover, we or our licensors may be subject to a third-party pre-issuance submission of prior art to the United States Patent and Trademark Office (USPTO) or become involved in opposition, derivation, revocation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or drug candidates and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize drugs without infringing third-party patent rights. If the breadth or strength of protection provided by our patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with us to license, develop or commercialize current or future drug candidates.

Additionally, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if our owned and in-licensed patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability, and our owned and in-licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and drug candidates. Such proceedings also may result in substantial cost and require significant time from our management and employees, even if the eventual outcome is favorable to us. Given the amount of time required for the development, testing and regulatory review of new drug candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. Furthermore, our competitors may be able to circumvent our owned or in-licensed patents by developing similar or alternative technologies or products in a non-infringing manner. As a result, our owned and in-licensed

patent portfolio may not provide us with sufficient rights to exclude others from commercializing technology and products similar or identical to any of our technology and drug candidates.

Patent terms may be inadequate to protect our competitive position on our drug candidates for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest United States non-provisional filing date. Various extensions may be available, but the life of a patent, and the protection it affords, is limited. Even if patents covering our drug candidates are obtained, once the patent life has expired, we may be open to competition from competitive products, including generics or biosimilars. Given the amount of time required for the development, testing, and regulatory review of new drug candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

If we do not obtain patent term extension in the United States under the Hatch-Waxman Act and in foreign countries under similar legislation, thereby potentially extending the term of our marketing exclusivity for any drug candidates we may develop, our business may be materially harmed.

In the United States, the patent term of a patent that covers an FDA-approved drug may be eligible for limited patent term extension, which permits patent term restoration as compensation for the patent term lost during the FDA regulatory review process. The Drug Price Competition and Patent Term Restoration Act of 1984, also known as the Hatch-Waxman Act, permits a patent term extension of up to five years beyond the expiration of the patent. The length of the patent term extension is related to the length of time the drug is under regulatory review. Patent extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. In addition, only one patent applicable to an approved drug may be extended, and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. Similar provisions are available in Europe and certain other non-United States jurisdictions to extend the term of a patent that covers an approved drug. While, in the future, if and when our drug candidates receive FDA approval, we expect to apply for patent term extensions on patents covering those drug candidates, there is no guarantee that the applicable authorities will agree with our assessment of whether such extensions should be granted, and even if granted, the length of such extensions. We may not be granted patent term extension either in the United States or in any foreign country because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the term of extension, as well as the scope of patent protection during any such extension, afforded by the governmental authority could be less than we request. If we are unable to obtain any patent term extension or the term of any such extension is less than we request, our competitors may obtain approval of competing products following the expiration of our patent rights, and our business, financial condition, results of operations, and prospects could be materially harmed.

It is possible that we will not obtain patent term extension under the Hatch-Waxman Act for a United States patent covering any of our drug candidates that we may identify even where that patent is eligible for patent term extension, or if we obtain such an extension, it may be for a shorter period than we had sought. Further, for our licensed patents, we may not have the right to control prosecution, including filing with the USPTO, of a petition for patent term extension under the Hatch-Waxman Act. Thus, if one of our licensed patents is eligible for patent term extension under the Hatch-Waxman Act, we may not be able to control whether a petition to obtain a patent term extension is filed, or obtained, from the USPTO.

Also, there are detailed rules and requirements regarding the patents that may be submitted to the FDA for listing in the Approved Drug Products with Therapeutic Equivalence Evaluations (Orange Book). We may be unable to obtain patents covering our drug candidates that contain one or more claims that satisfy the requirements for listing in the Orange Book. Even if we submit a patent for listing in the Orange Book, the FDA may decline to list the patent, or a manufacturer of generic drugs may challenge the listing. If one of our drug candidates is approved and a patent covering that drug candidate is not listed in the Orange Book, a manufacturer of generic drugs would not have to provide advance notice to us of any abbreviated new drug application filed with the FDA to obtain permission to sell a generic version of such drug candidate.

Changes to patent laws in the United States and other jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our products.

Changes in either the patent laws or interpretation of patent laws in the United States, including patent reform legislation such as the Leahy-Smith America Invents Act (Leahy-Smith Act) could increase the uncertainties and costs surrounding the prosecution of our owned and in-licensed patent applications and the maintenance, enforcement, or defense of our owned and in-licensed issued patents. The Leahy-Smith Act includes a number of significant changes to United States patent law. These changes include provisions that affect the way patent applications are prosecuted, redefine prior art, provide more efficient and cost-effective avenues for competitors to challenge the validity of patents, and enable third-party submission of prior art to the USPTO during patent prosecution, and additional procedures to attack the validity of a patent at USPTO-administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Assuming that other requirements for patentability are met, prior to March 2013, in the United States, the first to invent the claimed invention was entitled to the patent, while outside the United States, the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith Act, the United States transitioned to a first-to-file system in which, assuming that the other statutory requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. As such, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

In addition, the patent positions of companies in the development and commercialization of biologics and pharmaceuticals are particularly uncertain. Recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. This combination of events has created uncertainty with respect to the validity and enforceability of patents once obtained. Depending on future actions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our patent rights and our ability to protect, defend and enforce our patent rights in the future.

If we are unable to obtain licenses from third parties on commercially reasonable terms or fail to comply with our obligations under such agreements, our business could be harmed.

It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our products, in which case we would be required to obtain a license from these third parties. If we are unable to license such technology, or if we are forced to license such technology on unfavorable terms, our business could be materially harmed. If we are unable to obtain a necessary license, we may be unable to develop or commercialize the affected drug candidates, which could materially harm our business and the third parties owning such intellectual property rights could seek

either an injunction prohibiting our sales or an obligation on our part to pay royalties and/or other forms of compensation. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us.

If we are unable to obtain rights to required third-party intellectual property rights or maintain the existing intellectual property rights we have, we may be required to expend significant time and resources to redesign our technology, drug candidates, or the methods for manufacturing them or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If we are unable to do so, we may be unable to develop or commercialize the affected technology and drug candidates, which could harm our business, financial condition, results of operations, and prospects significantly.

Additionally, if we fail to comply with our obligations under license agreements, our counterparties may have the right to terminate these agreements, in which event we might not be able to develop, manufacture or market, or may be forced to cease developing, manufacturing or marketing, any product that is covered by these agreements or may face other penalties under such agreements. Such an occurrence could materially adversely affect the value of the drug candidate being developed under any such agreement. Termination of these agreements or reduction or elimination of our rights under these agreements, or restrictions on our ability to freely assign or sublicense our rights under such agreements when it is in the interest of our business to do so, may result in our having to negotiate new or reinstated agreements with less favorable terms, cause us to lose our rights under these agreements, including our rights to important intellectual property or technology, or impede, or delay or prohibit the further development or commercialization of, one or more drug candidates that rely on such agreements.

Although we are not currently involved in any litigation, we may become involved in lawsuits to protect or enforce our patent or other intellectual property rights, which could be expensive, time-consuming and unsuccessful.

Competitors and other third parties may infringe, misappropriate or otherwise violate our issued patents or other intellectual property. As a result, we may need to file infringement, misappropriation or other intellectual property related claims, which can be expensive and time-consuming. Any claims we assert against perceived infringers could provoke such parties to assert counterclaims against us alleging that we infringe, misappropriate or otherwise violate their intellectual property. In addition, in a patent infringement proceeding, such parties could counterclaim that the patents we have asserted are invalid or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may institute such claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). The outcome following legal assertions of invalidity and unenforceability is unpredictable.

An adverse result in any such proceeding could put one or more of our owned patents at risk of being invalidated or interpreted narrowly and could put any of our owned patent applications at risk of not yielding an issued patent. A court may also refuse to stop the third party from using the technology at issue in a proceeding on the grounds that our owned patents do not cover such technology. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information or trade secrets could be

compromised by disclosure during this type of litigation. Any of the foregoing could allow such third parties to develop and commercialize competing technologies and products and have a material adverse impact on our business, financial condition, results of operations, and prospects.

Interference or derivation proceedings provoked by third parties or brought by us or declared by the USPTO may be necessary to determine the priority of inventions with respect to our patents or patent applications. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms or at all, or if a non-exclusive license is offered and our competitors gain access to the same technology. Our defense of litigation or interference or derivation proceedings may fail and, even if successful, may result in substantial costs, and distract our management and other employees. In addition, the uncertainties associated with litigation could have a material adverse effect on our ability to raise the funds necessary to continue our clinical trials, continue our research programs, license necessary technology from third parties, or enter into development partnerships that would help us bring our drug candidates to market.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. There could also be public announcements of the results of hearings, motions, or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a material adverse effect on the price of our Class A common stock.

Third parties may initiate legal proceedings alleging that we are infringing, misappropriating or otherwise violating their intellectual property rights, the outcome of which would be uncertain and could have a material adverse effect on the success of our business.

Our commercial success depends upon our ability to develop, manufacture, market and sell our drug candidates and use our proprietary technologies without infringing, misappropriating or otherwise violating the intellectual property and proprietary rights of third parties. There is considerable patent and other intellectual property litigation in the pharmaceutical and biotechnology industries. We may become party to, or threatened with, adversarial proceedings or litigation regarding intellectual property rights with respect to our technology and drug candidates, including interference proceedings, post grant review, *inter partes* review, and derivation proceedings before the USPTO and similar proceedings in foreign jurisdictions such as oppositions before the European Patent Office. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are pursuing development candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our technologies or drug candidates that we may identify may be subject to claims of infringement of the patent rights of third parties.

The legal threshold for initiating litigation or contested proceedings is low, so that even lawsuits or proceedings with a low probability of success might be initiated and require significant resources to defend. Litigation and contested proceedings can also be expensive and time-consuming, and our adversaries in these proceedings may have the ability to dedicate substantially greater resources to prosecuting these legal actions than we can. The risks of being involved in such litigation and proceedings may increase if and as our drug candidates near commercialization and as we gain the greater visibility associated with being a public company. Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future, regardless of merit. We may not be aware of all such intellectual property rights potentially relating to our technology and drug candidates and their uses, or we may incorrectly conclude that third party intellectual property is

invalid or that our activities and drug candidates do not infringe such intellectual property. Thus, we do not know with certainty that our technology and drug candidates, or our development and commercialization thereof, do not and will not infringe, misappropriate or otherwise violate any third party's intellectual property.

Third parties may assert that we are employing their proprietary technology without authorization. There may be third-party patents or patent applications with claims to materials, formulations, methods of manufacture or methods for treatment related to the discovery, use or manufacture of the drug candidates that we may identify or related to our technologies. Because patent applications can take many years to issue, there may be currently pending patent applications which may later result in issued patents that the drug candidates that we may develop may be found to infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Moreover, as noted above, there may be existing patents that we are not aware of or that we have incorrectly concluded are invalid or not infringed by our activities. If any third-party patents were held by a court of competent jurisdiction to cover, for example, the manufacturing process of the drug candidates that we may develop, any molecules formed during the manufacturing process or any final product itself, the holders of any such patents may be able to block our ability to commercialize such drug candidate unless we obtained a license under the applicable patents, or until such patents expire.

Parties making claims against us may obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize the drug candidates that we may identify. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, pay royalties, redesign our infringing products, or obtain one or more licenses from third parties, which may be impossible or require substantial time and monetary expenditure.

We may choose to take a license or, if we are found to infringe, misappropriate or otherwise violate a third party's intellectual property rights, we could also be required to obtain a license from such third party to continue developing, manufacturing and marketing our technology and drug candidates. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us and could require us to make substantial licensing and royalty payments. We could be forced, including by court order, to cease developing, manufacturing and commercializing the infringing technology or product. In addition, we could be found liable for significant monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent or other intellectual property right and could be forced to indemnify our customers or collaborators. A finding of infringement could prevent us from commercializing our drug candidates or force us to cease some of our business operations, which could materially harm our business. In addition, we may be forced to redesign our drug candidates, seek new regulatory approvals, and indemnify third parties pursuant to contractual agreements. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar material adverse effect on our business, financial condition, results of operations, and prospects.

Intellectual property litigation or other legal proceedings relating to intellectual property could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our technical and management

personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our Class A common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing, or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and may also have an advantage in such proceedings due to their more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of intellectual property litigation or other proceedings could compromise our ability to compete in the marketplace.

Obtaining and maintaining patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for noncompliance with these requirements.

Periodic maintenance, renewal and annuity fees and various other government fees on any issued patent and pending patent application must be paid to the USPTO and foreign patent agencies in several stages or annually over the lifetime of our owned and in-licensed patents and patent applications. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In certain circumstances, we rely on our licensing partners to pay these fees to, or comply with the procedural and documentary rules of, the relevant patent agency. With respect to our patents, we rely on an annuity service, outside firms, and outside counsel to remind us of the due dates and to make payment after we instruct them to do so. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Non-compliance events that could result in abandonment or lapse of a patent or patent application include failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, potential competitors might be able to enter the market with similar or identical products or technology. If we or our licensors fail to maintain the patents and patent applications covering our drug candidates, it would have a material adverse effect on our business, financial condition, results of operations, and prospects.

We may not be able to protect our intellectual property and proprietary rights throughout the world.

Filing, prosecuting, and defending patents on drug candidates in all countries throughout the world would be prohibitively expensive. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States, and even where such protection is nominally available, judicial and governmental enforcement of such intellectual property rights may be lacking. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection or licenses, but enforcement is not as strong as that in the United States. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, particularly those relating to biotechnology products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. In addition, certain jurisdictions do not protect, to the same extent or at all, inventions that constitute new methods of treatment.

Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations, and prospects may be adversely affected.

We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We or our licensors may be subject to claims that former employees, collaborators or other third parties have an interest in our owned or in-licensed patents, trade secrets, or other intellectual property as an inventor or co-inventor. For example, we or our licensors may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our drug candidates. Litigation may be necessary to defend against these and other claims challenging inventorship or our or our licensors' ownership of our owned or in-licensed patents, trade secrets, or other intellectual property. If we or our licensors fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our drug candidates. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may be subject to claims by third parties asserting that our employees, consultants or contractors have wrongfully used or disclosed confidential information of third parties, or we have wrongfully used or disclosed alleged trade secrets of their current or former employers, or claims asserting we have misappropriated their intellectual property, or claiming ownership of what we regard as our own intellectual property.

Many of our employees, consultants and contractors were previously employed at universities or other pharmaceutical or biotechnology companies, including potential competitors. Although we try to ensure that our employees, consultants, and contractors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that these individuals or we have used or disclosed intellectual property, including trade secrets or other proprietary information, of any

such individual's current or former employer. Litigation may be necessary to defend against these claims.

In addition, while it is our policy to require our employees, consultants and contractors who may be involved in the development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who in fact develops intellectual property that we regard as our own. Our intellectual property assignment agreements with them may not be self- executing or may be breached, and we may be forced to bring claims against third parties, or defend claims they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, financial conditions, results of operations, and prospects.

If we fail in prosecuting or defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel, which could have a material adverse effect on our competitive business position and prospects. Such intellectual property rights could be awarded to a third party, and we could be required to obtain a license from such third party to commercialize our technology or products, which license may not be available on commercially reasonable terms, or at all, or such license may be non-exclusive. Even if we are successful in prosecuting or defending against such claims, litigation could result in substantial costs and be a distraction to our management and employees.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for some of our technology and drug candidates, we also rely on trade secrets and confidentiality agreements to protect our unpatented know-how, technology, and other proprietary information, to maintain our competitive position. We seek to protect our trade secrets and other proprietary technology, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors, and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. We cannot guarantee that we have entered into such agreements with each party that may have or has had access to our trade secrets or proprietary technology. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Detecting the disclosure or misappropriation of a trade secret and enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive, and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside of the United States are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor or other third party, our competitive position would be materially and adversely harmed.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

Our registered and unregistered trademarks or trade names may be challenged, infringed, circumvented, o declared generic or determined to be infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential collaborators or customers in our markets of interest. At times, competitors may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and

possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims brought by owners of other registered trade names or trademarks that incorporate variations of our unregistered trade names or trademarks. Over the long term, if we are unable to successfully register our trade names and trademarks and establish name recognition based on our trade names and trademarks, then we may not be able to compete effectively, and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trade names and trademarks may be ineffective and could result in substantial costs and diversion of resources and could adversely impact our financial condition or results of operations.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- we, or our license partners or current or future collaborators, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our owned or in-licensed intellectual property rights;
- it is possible that our owned and in-licensed pending patent applications or those we may own or in-license in the future will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we cannot ensure that any of our pending patent applications, if issued, or those of our licensors, will include claims having a scope sufficient to protect our drug candidates;
- we cannot ensure that any patents issued to us or our licensors will provide a basis for an exclusive market for our commercially viable drug candidates or will provide us with any competitive advantages;
- we cannot ensure that our commercial activities or drug candidates will not infringe upon the patents of others;
- we cannot ensure that we will be able to successfully commercialize our drug candidates on a substantial scale, if approved, before the relevant patents that we own, or license expire;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could have a material adverse effect on our business, financial condition, results of operations, and prospects.

Risks Related to our Dependence on Third Parties

We currently rely on third-party CMOs for the production of clinical supplies of PIPE-791 and PIPE-307 and we intend to rely on CMOs for our future drug candidates, as well as to supply the

raw materials necessary to produce our drug candidates. We may elect to continue to rely on CMOs for the production of commercial supplies of PIPE-791, if approved. Our dependence on CMOs may impair our development of drug candidates and may impair their commercialization, which would adversely impact our business and financial position.

We do not own facilities to manufacture PIPE-791, PIPE-307 or any of our drug candidates in development. Instead, we rely on and expect to continue to rely on CMOs for the supply of cGMP grade clinical trial materials of PIPE-791 and any other drug candidates we develop. We have relied on CMOs to supply the clinical trial materials for our Phase 2 clinical trial of PIPE-307 and, going forward, J&J may continue to rely on CMOs for the future development, manufacture and potential commercialization of PIPE-307. We intend to continue to rely on CMOs for the production of commercial supplies of PIPE-791, if approved. Reliance on CMOs may expose us to more risk than if we were to manufacture our drug candidates ourselves. If any CMO we engage is unable to provide sufficient supply of any drug candidate we develop, we may be unable to arrange for an alternative supply or to do so on commercially reasonable terms or in a timely manner, which could delay any clinical trials, the commercial launch of a drug candidate, if approved, or, regarding any commercial supply, result in a shortage in supply that could negatively impact our revenues. Transitioning to a new CMO for a drug candidate is time consuming and costly. We have identified, but have not contracted with, other CMOs as back-up for the manufacture and supply of PIPE-791. As a result, if the CMO currently involved in the manufacture and supply of PIPE-791 experiences a delay or disruption, we may not have sufficient quantities of PIPE-791 for our clinical trials and may not be able to transition to a new CMO in a timely or cost-effective manner, or at all, which would negatively impact our ability to develop, complete our planned clinical trials for PIPE-791.

Similarly, we contract for the supply of the active pharmaceutical ingredients (APIs) and other raw materials necessary to produce PIPE-791. We currently intend to contract in the future for the supply of these APIs and other raw materials for any other drug candidate we develop. Supplies of our APIs or other raw materials could be interrupted from time to time and we cannot be certain that alternative supplies could be obtained within a reasonable time frame, at an acceptable cost, or at all. In addition, a disruption in the supply of any required API or other raw material could delay the commencement of a planned clinical trial or the delay the commercial launch of a drug candidate, if approved, or result in a shortage in supply, which would impair our ability to generate revenues. Growth in the costs and expenses of our APIs or other raw materials may also impair our ability to cost-effectively manufacture a drug candidate. In addition, there may be a limited number of suppliers for the APIs or other raw materials that we may use to manufacture a drug candidate, and we cannot be certain that we will be able to engage such suppliers in a timely manner or at all. If we are unable to do so, clinical development of a drug candidate, commercialization for any approved product, or our business could be adversely affected.

The facilities used to manufacture the drug candidates we develop, as well as the included APIs, must be inspected by the FDA and comparable foreign regulatory authorities. While we provide oversight of manufacturing activities, we do not and will not control the execution of manufacturing activities by, and are or will be dependent on, our CMOs for compliance with cGMP requirements for the manufacture of a drug candidate. In addition, we have limited control over the ability of our CMOs to maintain adequate quality control, quality assurance, and qualified personnel, and we were not involved in developing our CMOs' policies and procedures. As a result, we are subject to the risk that a drug candidate may have manufacturing defects that we have limited ability to prevent. If a CMO cannot successfully manufacture material that conforms to our specifications and the regulatory requirements, we will not be able to secure or maintain regulatory approval for the use of the drug candidate in clinical trials, or for commercial distribution of the drug candidate, if approved.

If the FDA or comparable foreign regulatory authority finds deficiencies with or does not approve these facilities for the manufacture of the drug candidates we develop or if it withdraws any such

approval or finds deficiencies in the future, we may need to find alternative manufacturing facilities, which would delay our development program and planned clinical trials and significantly impact our ability to develop, obtain regulatory approval for, or commercialize such drug candidates, if approved. In addition, any failure to achieve and maintain compliance with laws, regulations, and standards related to manufacturing could subject us to risks, including the risk that we may have to suspend the manufacture of a drug candidate, that obtained approvals could be revoked, and that the FDA or another governmental regulatory authority may take enforcement actions, including untitled letters, warning letters, seizures, injunctions, or product recalls. Furthermore, CMOs may breach existing agreements they have with us because of factors beyond our control. They may also terminate or refuse to renew their agreement at a time that is costly or otherwise inconvenient for us. If we were unable to find an adequate CMO or another acceptable solution in time, our clinical trials could be delayed, or our commercial activities could be harmed.

Finding new CMOs or third-party suppliers involves additional cost and requires our management's time and focus. In addition, there is typically a transition period when a new CMO commences work. Although we have not, and do not intend to, begin a clinical trial unless we believe we have on hand, or will be able to obtain, a sufficient supply of the drug candidate to complete the clinical trial, any significant delay in the supply of the drug candidate or the raw materials needed to produce the drug candidate, could adversely affect our business in a number of ways, including but not limited to:

- an inability to initiate or continue clinical trials of our drug candidates under development;
- delay in submitting regulatory applications, or receiving marketing approvals, for our drug candidates;
- loss of the cooperation of an existing or future collaborator;
- subjecting third-party manufacturing facilities or our manufacturing facilities to additional inspections by regulatory authorities;
- economic loss and additional costs resulting from starting materials, intermediates, API or drug product that cannot be used in clinical trials or for other purposes;
- requirements to cease development or to recall batches of our drug candidates; and
- in the event of approval to market and commercialize our drug candidates, an inability to meet commercial demands for our product or any other future drug candidates.

As part of their manufacture of our drug candidates, our CMOs and third-party suppliers are expected to comply with and respect the proprietary rights of others. If a CMO or third-party supplier fails to acquire the proper licenses or otherwise infringes the proprietary rights of others in the course of providing services to us, we may have to find alternative CMOs or third-party suppliers or defend against claims of infringement, either of which would significantly impact our ability to develop, complete our planned clinical trials, obtain regulatory approval for, or commercialize a drug candidate, if approved.

We rely on third parties to conduct our ongoing clinical trials of PIPE-791 and PIPE-307 and expect to rely on third parties to conduct future clinical trials of PIPE-791 and any other drug candidates that we develop. If these third parties do not successfully carry out their contractual duties, comply with regulatory requirements or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize the drug candidates we develop and our business could be substantially harmed.

We do not have the ability to independently conduct clinical trials. We rely and expect to continue to rely on medical institutions, clinical investigators, contract laboratories and other third parties, such

as CROs, to conduct or otherwise support clinical trials for the drug candidates we develop. We may also rely on academic and private non-academic institutions to conduct and sponsor clinical trials relating to these drug candidates. We will not control the design or conduct of the investigator-sponsored trials, and it is possible that the FDA or non-U.S. regulatory authorities will not view these investigator-sponsored trials as providing adequate support for future clinical trials, whether controlled by us or third parties, for any one or more reasons, including elements of the design or execution of the trials or safety concerns or other trial results.

Such arrangements will likely provide us certain information rights with respect to the investigator-sponsored trials, including access to and the ability to use and reference the data, including for our own regulatory filings, resulting from the investigator-sponsored trials. However, we would not have control over the timing and reporting of the data from investigator-sponsored trials, nor would we own the data from the investigator-sponsored trials. If we are unable to confirm or replicate the results from the investigator-sponsored trials or if negative results are obtained, we would likely be further delayed or prevented from advancing further clinical development of our drug candidates. Further, if investigators or institutions breach their obligations with respect to the clinical development of our drug candidates, or if the data prove to be inadequate compared to the first-hand knowledge we might have gained had the investigator-sponsored trials been sponsored and conducted by us, then our ability to design and conduct any future clinical trials ourselves may be adversely affected.

We rely and expect to continue to rely heavily on these parties for execution of clinical trials for the drug candidates we develop and control only certain aspects of their activities. Nevertheless, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol, legal and regulatory requirements and scientific standards, and our reliance on CROs will not relieve us of our regulatory responsibilities. For any violations of laws and regulations during the conduct of our clinical trials, we could be subject to warning letters or enforcement action that may include civil penalties up to and including criminal prosecution.

We, our principal investigators and our CROs are required to comply with regulations, including GCPs for conducting, monitoring, recording and reporting the results of clinical trials to ensure that the data and results are scientifically credible and accurate, and that the trial patients are adequately informed of the potential risks of participating in clinical trials and their rights are protected. These regulations are enforced by the FDA and similar regulatory authorities in foreign countries. These regulatory authorities enforce GCP regulations through periodic inspections of clinical trial sponsors, principal investigators and trial sites. If we, our principal investigators or our CROs fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or similar foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that, upon inspection, these regulatory authorities will determine that any of our future clinical trials will comply with GCPs. In addition, our clinical trials must be conducted with drug candidates produced under cGMP regulations. Our failure or the failure of our principal investigators or CROs to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process and could also subject us to enforcement action. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

Although we designed our first-in-human clinical trials of PIPE-791 and PIPE-307, and intend to design the future clinical trials for the drug candidates that we develop, we expect that CROs will conduct all of our clinical trials. J&J will be responsible for designing any future clinical trials of PIPE-307. As a result, many important aspects of our development programs, including their conduct and timing, are outside of our direct control. Our reliance on third parties to conduct future clinical trials also results in less direct control over the management of data developed through clinical trials than

would be the case if we were relying entirely upon our own staff. Communicating with outside parties can also be challenging, potentially leading to mistakes as well as difficulties in coordinating activities. Outside parties may:

- have staffing difficulties;
- fail to comply with contractual obligations;
- experience regulatory compliance issues;
- undergo changes in priorities or become financially distressed; or
- form relationships with other entities, some of which may be our competitors.

These factors may materially adversely affect the willingness or ability of third parties to conduct our clinical trials and may subject us to unexpected cost increases that are beyond our control. If the principal investigators or CROs do not perform clinical trials in a satisfactory manner, breach their obligations to us or fail to comply with regulatory requirements, the development, regulatory approval and commercialization of our drug candidates may be delayed, we may not be able to obtain regulatory approval and commercialize our drug candidates, or our development program may be materially and irreversibly harmed. If we are unable to rely on clinical data collected by our principal investigators or CROs, we could be required to repeat, extend the duration of, or increase the size of any clinical trials we conduct and this could significantly delay commercialization and require significantly greater expenditures.

If any of our relationships with these third-party principal investigators or CROs terminate, we may not be able to enter into arrangements with alternative CROs. If principal investigators or CROs do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the clinical data they obtain is compromised due to the failure to adhere to our clinical protocols, regulatory requirements or for other reasons, any clinical trials such principal investigators or CROs are associated with may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for or successfully commercialize our drug candidates. As a result, we believe that our financial results and the commercial prospects for our drug candidates in the subject indication would be harmed, our costs could increase and our ability to generate revenue could be delayed.

We intend to rely on CROs, and other third parties to conduct our preclinical studies. If those third parties do not successfully carry out their contractual duties, or if they perform in an unsatisfactory manner, it may harm our business.

We rely, and will continue to rely, on CROs, CRO-contracted vendors, to conduct preclinical studies on the drug candidates we develop. Our reliance on CROs for preclinical development activities limits our control over these activities and we were not involved in developing our CRO's policies and procedures, but we remain responsible for ensuring that each of our preclinical studies is conducted in accordance with the applicable protocol and legal, regulatory, and scientific standards.

We and our CROs will be required to comply with the GLP requirements for our preclinical studies, which are regulations and guidelines enforced by the FDA and are also required by comparable foreign regulatory authorities. Our CROs are not our employees, and we do not control whether they devote sufficient time and resources to our preclinical studies. Our CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting preclinical studies, clinical trials, or other drug development activities, which could harm our competitive position. We face the risk of potential unauthorized disclosure or misappropriation of our intellectual property by CROs, which may reduce our trade secret protection and allow our potential

competitors to access and exploit our proprietary technology. If our CROs do not successfully carry out their contractual duties or obligations, or fail to meet expected deadlines, or if the quality or accuracy of the preclinical data they obtain is compromised due to the failure to adhere to our protocols or regulatory requirements or for any other reason, our ability to generate the preclinical data to advance the development of our drug candidates will be harmed.

If our relationship with any CROs terminates, we may not be able to enter into arrangements with alternative CROs or do so on commercially reasonable terms. Switching or adding additional CROs involves substantial cost and requires management's time and focus. In addition, there is a natural transition period when a new CRO commences work. As a result, delays occur, which can materially impact our ability to meet our desired preclinical development timelines. Though we intend to carefully manage our relationships with our CROs, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have an adverse impact on our business, financial condition, and prospects.

Our third-party manufacturers may be unable to successfully scale-up manufacturing of our drug candidates in sufficient quality and quantity, which could delay or prevent us from developing our drug candidates and commercializing approved products, if any.

In order to conduct clinical trials for the drug candidates we are developing, we will need to manufacture them in large quantities. Quality issues may arise during scale-up activities. Our reliance on a limited number of manufacturers, the complexity of drug manufacturing and the difficulty of scaling up a manufacturing process could cause the delay of clinical trials, regulatory submissions, required licensure, or commercialization of our drug candidates, cause us to incur higher costs and prevent us from commercializing our drug candidates successfully. Furthermore, if our manufacturing partners fail to deliver the required commercial quality and quantities of materials on a timely basis and at commercially reasonable prices, and we are unable to secure one or more replacement manufacturer capable of production in a timely manner at a substantially equivalent cost, then testing and clinical trials of that drug candidate may be delayed or infeasible, and regulatory licensure or commercial launch of any resulting product may be delayed or not obtained, which could significantly harm our business.

Manufacturing of the API for PIPE-791 takes place in China, through a sole third-party manufacturer. A significant disruption in the operation of this manufacturer could materially adversely affect our business, financial condition and results of operations.

We currently contract manufacturing operations to third parties, and the manufacturing of the API for PIPE-791 is completed by a third party located in China. Any disruption in production or inability of this manufacturer to produce adequate quantities to meet our needs could impair our ability to further development of PIPE-791. Furthermore, since this third-party manufacturer is located in China, we are exposed to the possibility of product supply disruption and increased costs in the event of changes in the policies of the U.S. or Chinese governments, political unrest or unstable economic conditions in China. For example, a trade war could lead to tariffs on the chemical intermediates we use that are manufactured in China. Any of these matters could materially and adversely delay our development efforts and affect our business and results of operations. Any recall of the manufacturing lots or similar action regarding the drug candidates we are studying in our clinical trials could delay the trials or detract from the integrity of the trial data and its potential use in future regulatory filings.

Our employees and independent contractors, including principal investigators, CROs, consultants, vendors, and any third parties we may engage in connection with development and commercialization may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on our business.

Our employees and independent contractors, including principal investigators, CROs, consultants, vendors, and any third parties we may engage in connection with development and commercialization of the drug candidates we develop, could engage in misconduct, including intentional, reckless, or negligent conduct or unauthorized activities that violate applicable laws, rules, and regulations including: the laws and regulations of the FDA or other similar regulatory requirements of other authorities, including those laws that require the reporting of true, complete, and accurate information to such authorities; manufacturing standards; data privacy, security, fraud and abuse, and other healthcare laws and regulations; or laws that require the reporting of true, complete, and accurate financial information and data. Specifically, sales, marketing, and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing, and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs, and other business arrangements. Activities subject to these or other laws could also involve the improper use or misrepresentation of information obtained in the course of clinical trials, creation of fraudulent data in preclinical studies or clinical trials, or illegal misappropriation of drug product, which could result in regulatory sanctions and cause serious harm to our reputation. It is not always possible to identify and deter misconduct by employees and other third parties, and the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to comply with such laws or regulations. Additionally, we are subject to the risk that a person or government agency could allege such fraud or other misconduct, even if none occurred. If any such actions are instituted against us or them and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant civil, criminal, and administrative penalties, damages, monetary fines, possible exclusion from participation in Medicare, Medicaid, other U.S. federal healthcare programs or healthcare programs in other jurisdictions, individual imprisonment, other sanctions, contractual damages, reputational harm, diminished profits and future earnings, and curtailment of our operations.

Risks Related to Healthcare Laws and Other Legal Compliance Matters

Recent and future changes in healthcare legislation and regulations may increase the difficulty and cost to obtain marketing approval for a drug candidate, increase the costs to commercialize an approved product, and adversely affect the price set for such product.

In the United States and other jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system that could impact the future results of our operations. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels with the stated objective to reduce healthcare costs and improve the quality of healthcare. For example, in March 2010, the Patient Protection and Affordable Care Act (ACA) was enacted, which substantially changed the way healthcare is financed by both governmental and private insurers. Provisions of the ACA with importance to the biotechnology and pharmaceutical industries include, among others:

- an annual, non-deductible fee payable by any entity that manufactures or imports certain branded prescription drugs or biologic agents;

- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program;
- the requirement of a distinct calculation for rebates owed by manufacturers under the Medicaid Drug Rebate Program for drugs and biologics that are inhaled, infused, instilled, implanted, or injected; and
- a Medicare Part D coverage gap discount program, under which manufacturers must agree to offer certain discounts on applicable branded drugs to eligible beneficiaries during their coverage gap period.

The ACA and its implementation continue to evolve as a result of legislative, administrative, and judicial developments. Further changes remain possible, which may potentially negatively affect pricing, coverage, or reimbursement for PIPE-791 and/or PIPE-307.

In addition to the ACA, U.S. governments continue to seek to adopt healthcare policies and reforms intended to curb healthcare costs, such as federal or state controls on payment for drugs (including under Medicare, Medicaid, and commercial health plans). For example, the Budget Control Act of 2011 resulted in aggregate reductions, or sequestration, of Medicare payments to providers. Sequestration is currently set at 2% and will increase to 2.25% for the first half of fiscal year 2030, to 3% for the second half of fiscal year 2030, and to 4% for the remainder of the sequestration period that lasts through the first six months of fiscal year 2031. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, adjusted Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

More recently, the Inflation Reduction Act of 2022 (IRA) requires, among other things, the U.S. Secretary of the Department of Health and Human Services (HHS) to negotiate, with respect to Medicare units and subject to a specified cap, called the Maximum Fair Price, the price of a set number of certain high spend Medicare Part B and D drugs and biologicals per year, with prices taking effect starting in 2026. Though the IRA explicitly excludes from price negotiation orphan drugs designated for only one rare disease or condition and for which the only active approved indication is for such disease or condition, drugs with multiple orphan designations are not explicitly excluded from drug price negotiation, which may affect the profitability of pursing multiple indications for an orphan drug. Any failure to comply with requirements under the drug price negotiation program could subject us to an excise tax and/or a civil monetary penalty. The IRA also makes several changes to the Medicare Part D benefit, including capping patient out-of-pocket spending at $2,000 beginning in 2025, while imposing new discount obligations for pharmaceutical manufacturers and payors, which could negatively affect our business and financial condition. If we are not in compliance with obligations under the Medicare Part D benefit redesign, we could be subject to civil monetary penalties. In addition, the IRA establishes Medicare Part B and Part D inflation rebate schemes, under which manufacturers will owe rebates to Medicare if, generally speaking, the average sales price of a Part B drug, or the average manufacturer price of a Part D drug, increases faster than the pace of inflation. The failure to timely pay an inflation rebate may result in a civil monetary penalty. Since the IRA was enacted, the Centers for Medicare and Medicaid Services (CMS) has taken various steps to implement the drug pricing provisions of the law. This includes releasing a list of Medicare Part B products that had an adjusted coinsurance rate based on the inflationary rebate provisions of the IRA for the time period of October 1, 2023 to December 31, 2023 in September 2023; on June 30, 2023, issuing guidance detailing the requirements and parameters of the first round of price negotiations, to take place during 2023 and 2024, for products subject to the “maximum fair price” provision that would become effective in 2026; and, on August 29, 2023, releasing the initial list of 10 drugs subject to price negotiations. While it remains to be seen how the drug pricing provisions imposed by the IRA will affect

the broader pharmaceutical industry (including orphan drug development), several pharmaceutical manufacturers and other industry stakeholders have challenged the law, including through lawsuits brought against the HHS, the Secretary of HHS, CMS, and the CMS Administrator challenging the constitutionality and administrative implementation of the IRA's drug price negotiation provisions. The IRA and any other similar laws introduced in the future may result in additional reductions in Medicare and other healthcare funding, which could negatively affect our future revenues and results of operations.

Individual states in the United States have also become increasingly aggressive in seeking to pass legislation and implementing regulations designed to control pharmaceutical and biological product pricing. Such measures could harm our business, results of operations, financial condition, and prospects. For example, an emerging trend at the state level is the establishment of prescription drug affordability boards, some of which will prospectively permit certain states to establish upper payment limits for drugs that the state has determined to be "high-cost". We expect that additional state reform measures will be adopted in the future, any of which could limit the amounts that state governments will pay for healthcare products and services, which could result in reduced demand or lower pricing for our drug candidates, or additional pricing pressures.

In markets outside of the United States, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. We cannot predict the likelihood, nature, or extent of government regulation that may arise from future legislation or administrative action in the United States or any other jurisdiction. If we or any third parties we may engage are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we or such third parties are not able to maintain regulatory compliance, our drug candidates may lose any regulatory approval that may have been obtained and we may not achieve or sustain profitability.

Our business operations and current and future relationships with contractors, investigators, healthcare professionals, consultants, third-party payors, patient organizations, customers, and others will be subject to applicable healthcare regulatory laws, which could expose us to penalties.

Our business operations and current and future arrangements with contractors, investigators, healthcare professionals, consultants, third-party payors, patient organizations, and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell, and distribute our drug candidates, as well as our customer support and physician consulting arrangements. Such laws include:

- the U.S. federal Anti-Kickback Statute (AKS), a criminal law which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving, or providing any remuneration (including any kickback, bribe, or anything of value), directly or indirectly, overtly or covertly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, lease, order, arrangement, or recommendation of, any good, facility, item or service for which payment may be made, in whole or in part, under U.S. federal and state healthcare programs (such as Medicare and Medicaid). A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. The AKS has been interpreted to apply to arrangements between pharmaceutical manufacturers or their agents and prescribers, purchasers and formulary or benefit managers, among other parties;
- the U.S. federal false claims and civil monetary penalties laws, including the False Claims Act (FCA), which prohibits any person from, among other things, knowingly presenting, or causing

to be presented false or fraudulent claims for payment of government funds; knowingly making, using or causing to be made or used, a false record or statement material to an obligation to pay money to the government or knowingly and improperly avoiding, decreasing or concealing an obligation to pay money to the U.S. federal government. In addition, any claims submitted as a result of a violation of the AKS constitute false claims and are subject to enforcement under the FCA. Pharmaceutical manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims. The FCA can be enforced by the U.S. Department of Justice or through whistleblower or *qui tam* actions filed by private citizens on behalf of the federal government;

- certain criminal provisions enacted as part of the U.S. federal Health Insurance Portability and Accountability Act of 1996, as amended (HIPAA), prohibit, among other things, knowingly and willfully executing or attempting to execute a scheme to defraud any healthcare benefit program, knowingly and willfully embezzling or stealing from a health care benefit program, willfully obstructing a criminal investigation of a health care offense, or knowingly and willfully making false statements relating to healthcare matters, regardless of the payor (e.g., public or private). Similar to the AKS, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation;
- HIPAA and the respective implementing regulations, which impose, among other things, specified requirements relating to privacy, security and breaches of individually identifiable health information by covered entities subject to the rule, such as health plans, healthcare clearinghouses and healthcare providers as well as their business associates that perform certain services involving the creation, receipt, maintenance, or transmission of protected health information. HIPAA provides for criminal penalties, as well as civil monetary penalties, and is enforced by the Office of Civil Rights within the HHS as well as state attorneys general, which can file civil actions for damages or injunctions in federal courts and seek attorneys' fees and costs associated with pursuing federal civil actions;
- the FDCA, which prohibits, among other things, the adulteration or misbranding of drugs, biologics, and medical devices;
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers;
- the U.S. federal Physician Payments Sunshine Act, enacted as part of the ACA, and its implementing regulations, which requires certain manufacturers of drugs, devices, biologics, and medical supplies that are reimbursable under Medicare, Medicaid, or the Children's Health Insurance Program, along with others, to track and report annually to the government information related to certain payments and other transfers of value to U.S.-licensed physicians, physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, anesthesiology assistants certified nurse-midwives, and teaching hospitals, as well as ownership and investment interests held by certain physicians and their immediate family members in the manufacturer;
- the federal Civil Monetary Penalties Law, which authorizes the imposition of substantial monetary penalties against an entity, such as a pharmaceutical manufacturer, that engage in activities including, among others (1) knowingly presenting, or causing to be presented, a claim for services not provided as claimed or that is otherwise false or fraudulent in any way; (2) arranging for or contracting with an individual or entity that is excluded from participation in federal health care programs to provide items or services reimbursable by a federal health care program; (3) violations of the AKS; or (4) failing to report and return a known overpayment;
- analogous U.S. state laws and regulations, including: state anti-kickback and false claims laws, which may apply to items or services reimbursed by any third-party payor, including private

insurers; state laws that require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the U.S. federal government, or otherwise restrict payments that may be made to healthcare providers and other potential referral sources; state laws and regulations that require drug manufacturers to file reports relating to pricing and marketing information that require the tracking of gifts and other remuneration and items of value provided to healthcare professionals and entities; and state laws governing privacy, security, and breaches of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. For example, the California Consumer Privacy Act (CCPA), as amended by the California Privacy Rights Act (CPRA), establishes certain requirements for data use and sharing transparency and provides California consumers (as defined in the law) certain rights concerning the use, disclosure, and retention of their personal data. Such rights include rights to access and delete personal information, opt out of certain personal information sharing, and receive detailed information about how personal information is used. The CCPA provides for civil penalties for violations, as well as a private right of action for data breaches—involving certain types of personal information—that is expected to increase data breach litigation. The CCPA may increase our compliance costs and potential liability. Numerous other states, such as Virginia, Colorado, Utah, and Connecticut, have enacted privacy laws similar to the CCPA, and some states, like Washington, have enacted health privacy specific laws that grant heightened rights with respect to health information;

- similar healthcare laws and regulations in the European Union, or EU, and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of personal information, such as, where applicable, the General Data Protection Regulation, including as implemented in the UK, or GDPR, which imposes obligations and restrictions on the processing of personal data relating to individuals located in the European Union (EU) and the European Economic Area (EEA) (including health data); and
- laws and regulations prohibiting bribery and corruption such as the U.S. Foreign Corrupt Practices Act of 1977, as amended (FCPA), which, among other things, prohibits U.S. companies and their employees and agents from authorizing, promising, offering, or providing, directly or indirectly, corrupt or improper payments or anything else of value to foreign government officials, employees of public international organizations or foreign government-owned or affiliated entities, candidates for foreign public office, and foreign political parties or officials thereof.

Because of the breadth of these laws and the narrowness of the statutory exceptions and regulatory safe harbors available under such laws, it is possible that some of our business activities, including our consulting agreements and other relationships with healthcare providers, could be subject to challenge under one or more of such laws. Ensuring that our current and future internal operations and business arrangements with third parties comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices do not comply with current or future statutes, regulations, agency guidance, or case law involving applicable fraud and abuse or other healthcare laws and regulations.

If our operations are found to be in violation of any of the laws described above or any other governmental laws and regulations that may apply to us, we may be subject to actions including the imposition of civil, criminal, and administrative penalties, damages (potentially up to treble damages), disgorgement, monetary fines, exclusion from participation in Medicare, Medicaid, and other federal healthcare programs, individual imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements, or oversight if we become subject to a

corporate integrity agreement or similar agreement to resolve allegations of noncompliance with these laws, and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. Further, defending against any such actions can be costly, time consuming, and may require significant personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be adversely affected.

Any clinical trial programs, marketing, or research collaborations in the European Economic Area will subject us to the GDPR.

The GDPR applies to companies established in the EEA, as well as to companies that are not established in the EEA and which, *inter alia*, collect and use personal data in relation to (i) offering goods or services to, or (ii) monitoring the behavior of, individuals located in the EEA. If we conduct clinical trial programs in the EEA (whether the trials are conducted directly by us or through a clinical vendor or collaborator), or enter into research collaborations involving the monitoring of individuals in the EEA, or market our products to individuals in the EEA, we will be subject to the GDPR. The GDPR puts in place stringent operational requirements for processors and controllers of personal data, including, for example, high standards for obtaining consent from individuals to process their personal data (or reliance on another appropriate legal basis), the provision of robust and detailed disclosures to individuals about how personal data is collected and processed (in a concise, intelligible and easily accessible form), a comprehensive individual data rights regime (including access, erasure, objection, restriction, rectification and portability), maintaining a record of data processing, data export restrictions governing transfers of data from the EEA, short timelines for certain data breach notifications to be given to data protection regulators or supervisory authorities (and in certain cases, affected individuals), and limitations on retention of personal data. The GDPR also puts in place increased requirements pertaining to health data and other special categories of personal data, and includes within scope, pseudonymized (i.e., key-coded) data. Further, the GDPR provides that EEA member states may establish their own laws and regulations limiting the processing of genetic, biometric, or health data, which could limit our ability to collect, use, and share such data and/or could cause our costs to increase. In addition, there are certain obligations if we contract third-party processors in connection with the processing of personal data. If our or our collaborators' or service providers' privacy or data security measures fail to comply with the GDPR requirements, we may be subject to litigation, regulatory investigations, enforcement notices requiring us to change the way we use personal data, or fines of up to 20 million Euros or up to 4% of our total worldwide annual revenue of the preceding financial year, whichever is higher, as well as compensation claims by affected individuals, including class-action type litigation, negative publicity, reputational harm and a potential loss of business and goodwill. Additionally, following the United Kingdom's withdrawal from the European Union, we will have to comply with the GDPR and the GDPR as implemented in the United Kingdom, each regime having the ability to fine up to the greater of €20 million/ £17.5 million, respectively, or 4% of global turnover. The relationship between the United Kingdom and the European Union in relation to certain aspects of data protection law remains subject to change, for example around how data can lawfully be transferred between each jurisdiction, which exposes us to further compliance risk.

We are subject to environmental, health and safety laws and regulations, and we may become exposed to liability and substantial expenses in connection with environmental compliance or remediation activities.

Our operations, including our development, testing and manufacturing activities, are subject to numerous environmental, health and safety laws and regulations. These laws and regulations govern, among other things, the controlled use, handling, release, and disposal of and the maintenance of a registry for, hazardous materials and biological materials, such as chemical solvents, human cells,

carcinogenic compounds, mutagenic compounds, and compounds that have a toxic effect on reproduction, laboratory procedures and exposure to blood-borne pathogens. If we fail to comply with such laws and regulations, we could be subject to fines or other sanctions.

As with other companies engaged in activities similar to ours, we face a risk of environmental liability inherent in our current and historical activities, including liability relating to releases of or exposure to hazardous or biological materials. Environmental, health and safety laws and regulations are becoming more stringent. We may be required to incur substantial expenses in connection with future environmental compliance or remediation activities, in which case, the production efforts of our third-party manufacturers or our development efforts may be interrupted or delayed.

We are subject to certain U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations. We can face serious consequences for violations.

U.S. and foreign anti-corruption, anti-money laundering, export control, sanctions, and other trade laws and regulations, which we collectively refer to as Trade Laws, prohibit, among other things, companies and their employees, agents, clinical research organizations, legal counsel, accountants, consultants, contractors, and other partners from authorizing, promising, offering, providing, soliciting, or receiving directly or indirectly, corrupt or improper payments or anything else of value to or from recipients in the public or private sector. Exports of our products are further subject to export controls and sanctions laws and regulations imposed by the U.S. government and administered by the U.S. Departments of State, Commerce, and Treasury. U.S. export control laws may require a license or other authorization to export products to certain destinations and end users. In addition, U.S. economic sanctions laws include restrictions or prohibitions on engaging in any transactions or dealings, including receiving investment or financing from, or engaging in the sale or supply of products and services to, U.S. sanctioned countries, governments, persons and entities.

Violations of Trade Laws can result in substantial criminal fines and civil penalties, imprisonment, the loss of trade privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. We also expect our non-U.S. activities to increase over time. We expect to rely on third parties for research, preclinical studies, and clinical trials and/or to obtain necessary permits, licenses, patent registrations, and other marketing approvals. We can be held liable for the corrupt or other illegal activities of our personnel, agents, or partners, even if we do not explicitly authorize or have prior knowledge of such activities. Any changes in Trade Laws could result in a decreased ability to export or sell our solutions to, existing or potential customers with international operations. Future changes in Trade Laws and enforcement could also result in increased compliance requirements and related costs which could materially adversely affect our business, results of operations, financial condition and/or cash flows.

Risks Related to our Employees, Managing our Growth and our Operations

Our future success depends on our ability to retain our key personnel and to attract, retain and motivate qualified personnel.

We are highly dependent on Carmine Stengone, our President and Chief Executive Officer, Daniel Lorrain, Ph.D., our Chief Scientific Officer, Stephen Huhn, M.D., our Chief Medical Officer and Senior Vice President of Clinical Development, Peter Slover, our Chief Financial Officer, as well as the other principal members of our management, scientific, and clinical teams. Although we have employment agreements, offer letters or consulting agreements with our executive officers, these

agreements do not prevent them from terminating their services at any time. Further, we do not maintain “key man” life insurance on our executive officers.

If we lose one or more of our executive officers or key employees, our ability to implement our business strategy successfully could be seriously harmed. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period because of the limited number of individuals in our industry with the breadth of skills and experience required to develop, gain regulatory approval of and commercialize drug candidates successfully. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these additional key personnel on acceptable terms given the competition among numerous biotechnology and pharmaceutical companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions.

In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be engaged by other companies or organizations and may have commitments that limit their availability. If we are unable to continue to attract and retain highly qualified personnel, our ability to develop and commercialize our drug candidates will be limited.

We expect to expand our development, regulatory, and sales and marketing capabilities, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of clinical development, regulatory affairs and sales and marketing. To manage our anticipated future growth, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities or acquire new facilities, and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Any inability to manage growth could delay the execution of our business plans or disrupt our operations.

Our business and operations could be materially and adversely affected in the event of system failures.

Despite the implementation of security measures, our computer systems, as well as those of our CROs and other contractors and consultants, are vulnerable to damage from computer viruses, unauthorized access, natural and manmade disasters (including earthquakes or fires), terrorism, war, PHEs, and telecommunication and electrical failures. While we do not believe that we have experienced any such system failure, accident, or security breach to date, if such an event were to occur and cause interruptions in our or their operations, it could result in delays and/or material disruptions of our research and development programs. For example, the loss of preclinical or clinical trial data from ongoing, or planned trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Likewise, we currently rely on third parties for the manufacture of our drug candidates and to conduct clinical trials, and similar events relating to their computer systems could also have a material adverse effect on our business. To the extent that any disruption or security breach were to result in a loss of or damage to our data or applications, or inappropriate disclosure of personal, confidential or proprietary information, we could incur liability, and the development of our drug candidates could be delayed.

Our proprietary or confidential information may be lost, or we may suffer security breaches.

The U.S. federal and various state and foreign governments have enacted or proposed requirements regarding the collection, distribution, use, security and storage of personally identifiable information and other data. In the ordinary course of our business, we and third parties with which we have relationships will continue to collect and store sensitive data, including clinical trial data, proprietary business information, personal data and personally identifiable information of our clinical trial subjects and employees, in data centers and on networks. The secure processing, maintenance and transmission of this information is critical to our operations. Despite our and our collaborators' security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or internal bad actors, breaches due to employee error, technical vulnerabilities, malfeasance, or other disruptions. A number of proposed and enacted federal, state and international laws and regulations obligate companies to notify regulators and/or individuals of security breaches, which could result from breaches experienced by us or by third parties, including collaborators, vendors, contractors, or other organizations with which we have formed strategic relationships. Although, to our knowledge, neither we nor any such third parties have experienced any material security breach, and even though we may have contractual protections with such third parties, any such breach could compromise our or their networks and the information stored therein could be accessed, publicly disclosed, lost or stolen. Any such access, disclosure, notifications, follow-up actions related to such a security breach or other loss of information could result in legal claims or proceedings, liability under laws including those that protect the privacy of personal information, and significant costs, including regulatory penalties, fines, and legal expenses, and such an event could disrupt our operations, cause us to incur remediation costs, damage our reputation, and cause a loss of confidence in us and our or such third parties' ability to conduct clinical trials, which could adversely affect our reputation, delay the clinical development of our drug candidates and materially and adversely affect our business.

Risks Related to Commercialization

We face significant competition from biotechnology, pharmaceutical, and medical device companies, and our operating results will suffer if we fail to compete effectively and in a timely manner.

The biotechnology, pharmaceutical, and medical device industries are highly competitive and subject to significant and rapid technological change. Our success is highly dependent on our ability to acquire, develop, and obtain marketing approval for new products on a cost-effective basis and to market them successfully. If a drug candidate we develop is approved, we will face intense competition from a variety of businesses, including large, fully integrated pharmaceutical companies, specialty pharmaceutical companies, biotechnology companies and early-stage companies, particularly if the early-stage company has a collaborative arrangement with a large and established company.

In addition, we face competition with respect to our current drug candidates and will face competition with respect to any other drug candidates that we may seek to develop or commercialize in the future, from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of drug candidates for the treatment of the indications that we are pursuing. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

PIPE-791 for IPF

While there is no pharmacological cure for IPF, there are two FDA-approved therapies to treat the disease: pirfenidone (Esbriet, marketed by Genentech/Roche) and nintedanib (Ofev, marketed by

Boehringer Ingelheim). We are also aware of LPA1R targeted drug candidates in development for IPF by Bristol-Meyers Squibb, AbbVie Inc., Horizon Therapeutics plc, and Structure Therapeutics Inc. In addition, there are a number of companies developing drug candidates for IPF utilizing approaches with different mechanisms of action, including but not limited to Roche Holding AG, Boehringer Ingelheim, United Therapeutics Corporation, Pliant Therapeutics, RedX Pharma, and Endeavor Biomedicines.

PIPE-791 for Progressive MS

While there are a number of MS medications approved by the FDA for the “active” form of SPMS, no FDA-approved drugs carry a specific indication for Progressive MS. Mitoxantrone (Novantrone®, marketed by Serono) is approved for secondary (chronic) Progressive MS and ocrelizumab (Ocrevus®, marketed by Genentech/Roche) is approved for PPMS.

PIPE-307 for Depression

There are numerous approved therapies for depression, including antidepressant drugs such as selective serotonin reuptake inhibitors, serotonin and norepinephrine reuptake inhibitors, antipsychotics and mood stabilizers. A number of these approved therapies are offered as generics.

PIPE-307 for RRMS

We are aware of over 20 DMTs that suppress inflammatory injury and decrease the rate of annual relapses. However, to our knowledge, none of these approved therapies, including any generics, effectively promote remyelination to mitigate the progressive disability associated with chronic demyelination.

Many of the companies that we compete against or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Mergers and acquisitions in the pharmaceutical, biotechnology and diagnostic industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or earlier stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. In addition, we cannot predict whether our current competitive advantages, such as our ability to develop selective compounds targeting challenging molecular pathways, will remain in place in the future. If these or other barriers to entry do not remain in place, other companies may be able to more directly or effectively compete with us.

Further, competition could render any drug candidate we develop obsolete, less competitive, or uneconomical. Our competitors may, among other things:

- develop and commercialize products that are safer, more effective, less expensive, more convenient, or easier to administer, or have fewer or less severe side effects;
- obtain quicker regulatory approval;
- have significantly greater name recognition and financial, manufacturing, marketing, product development, technical, and human resources than we do, with mergers and acquisitions in the biotechnology, pharmaceutical, and medical device industries resulting in even more resources being concentrated in our competitors;

- more effectively recruit and retain qualified scientific and management personnel;
- more effectively establish clinical trial sites and patient registration;
- better protect their patents and intellectual property or acquire technologies that are complementary to, or necessary for, our programs;
- implement more effective approaches to sales, marketing, pricing, coverage, and reimbursement; or
- form more advantageous strategic alliances or collaborations.

If we are not able to effectively compete for any of the foregoing reasons, our business, financial condition and results of operations will be materially harmed.

Even if PIPE-791 or PIPE-307 receives marketing approval in an indication, it may fail to achieve market acceptance by physicians, patients, third-party payors, or others in the medical community necessary for commercial success.

Even if PIPE-791 or PIPE-307 receives marketing approval for an indication, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors, and others in the medical community. If it does not achieve an adequate level of acceptance, we may not generate significant product revenues or royalties to become profitable. The degree of market acceptance of PIPE-791 or PIPE-307, if approved, will depend on several factors, including, but not limited to:

- the efficacy and potential advantages compared to alternative treatments;
- effectiveness of sales and marketing efforts;
- the cost of treatment in relation to alternative treatments, including any similar generic treatments;
- the ability to offer a product for sale at competitive prices;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- the availability of third-party coverage and adequate reimbursement;
- the prevalence and severity of any side effects; and
- any restrictions on the use of the product together with other medications.

Because we expect sales of PIPE-791 or PIPE-307, if approved, to generate substantially all our revenues for the foreseeable future, the failure of these drug candidates to find market acceptance would harm our business and could require us to seek additional financing.

We have no sales, marketing or distribution capabilities or experience. If we are unable to establish sales and marketing capabilities either on our own or in collaboration with third parties, we may not be successful in commercializing PIPE-791, even if approved.

We have no sales, marketing or distribution capabilities or experience. In order to market and successfully commercialize PIPE-791, even if approved, we must build our sales and marketing capabilities or enter into collaborations with third parties for these services. We currently have no sales, marketing or distribution capabilities and as a company have no experience in marketing products. We

currently intend to directly market and commercialize PIPE-791, if it is approved, in the United States by developing our own sales and marketing force. There are significant expenses and risks involved with establishing our own sales and marketing capabilities, including our ability to hire, train, retain, and appropriately incentivize a sufficient number of qualified individuals, generate sufficient sales leads and provide our sales and marketing team with adequate access to physicians who may prescribe our product, effectively manage a geographically dispersed sales and marketing team, and other unforeseen costs and expenses. Any failure or delay in developing PIPE-791 that affects the expected timing for its commercialization or results in its failure to be commercialized could result in us having prematurely or unnecessarily incurred costly commercialization expenses.

We may also enter into collaborations for the sales and marketing of PIPE-791, if approved, especially in jurisdictions outside the United States. To the extent that we depend on collaborators for sales and marketing activities, any revenues we receive will depend upon the success of those collaborators' sales and marketing teams and the collaborators' prioritization of our product and compliance with applicable regulatory requirements, and there can be no assurance that the collaborators' efforts will be successful.

If we are unable to build our own sales and marketing team or enter into collaborations for the commercialization of PIPE-791, if approved, we may be forced to delay the commercialization of PIPE-791 or reduce the scope of our sales or marketing activities, which would have an adverse effect on our business, results of operation and prospects.

The successful commercialization of PIPE-791 or PIPE-307 will depend in part on the extent to which governmental authorities and health insurers establish adequate coverage, reimbursement levels, and pricing policies for such drug candidates. Failure to obtain or maintain coverage and adequate reimbursement for PIPE-791 or PIPE-307, even if approved, could limit our or J&J's ability to market these products and decrease the revenue we generate or the royalties we receive.

The availability and adequacy of coverage and reimbursement by governmental healthcare programs such as Medicare and Medicaid, private health insurers, and other third-party payors are essential for most patients to be able to afford prescription medications. The ability to achieve acceptable levels of coverage and reimbursement for PIPE-791 and PIPE-307, if approved, by governmental authorities, private health insurers and other organizations will influence our ability and J&J's ability, respectively to successfully commercialize these drug candidates. Obtaining adequate coverage and reimbursement for a drug candidate that is administered under the supervision of a physician, which is what we anticipate for both PIPE-791 and PIPE-307, may be particularly difficult because of the higher prices associated with such products. As a result, availability of coverage and reimbursement by payors is highly uncertain. A decision by a third-party payor not to cover or separately reimburse a product could reduce physician utilization of the product once approved. Assuming PIPE-791 and PIPE-307 obtain coverage by third-party payors, the resulting reimbursement payment rates may not be adequate or may require co-payments that patients find unacceptably high. We cannot be sure that coverage and reimbursement in the United States or elsewhere will be available for PIPE-791 or PIPE-307, and any reimbursement that may become available may be decreased or eliminated in the future.

Third-party payors increasingly are challenging prices charged for pharmaceutical products and services, and Congress has introduced several proposals related to drug pricing, as discussed above. Many third-party payors may refuse to provide coverage and reimbursement for particular drugs or biologics when an equivalent generic drug, biosimilar, or a less expensive therapy is available. Even if PIPE-791 or PIPE-307 offer improved efficacy, pricing of existing drugs may limit the amount we and J&J, respectively, can charge for these products. Payors may deny or revoke the reimbursement status

of a given product or establish prices for new or existing marketed products at levels that are too low to enable a satisfactory return on investment. If reimbursement is not available for PIPE-791 or PIPE-307, or is available only at limited levels, neither we nor J&J may be able to successfully commercialize these drug candidates. Additionally, revenues we ultimately receive from PIPE-791 or PIPE-307 will also depend on what, if any, proposals related to drug pricing may be implemented and, if implemented, when they might take effect.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. In the United States, third-party payors, including private and governmental payors, such as the Medicare and Medicaid programs, play an important role in determining the extent to which new drugs and biologics will be covered. The Medicare and Medicaid programs increasingly are used as models in the United States for how private payors and other governmental payors develop their coverage and reimbursement policies for drugs and biologics. Some third-party payors may require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse healthcare providers who use such therapies. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for PIPE-791 and PIPE-307.

No uniform policy for coverage and reimbursement for products exists among third-party payors in the United States. Therefore, coverage and reimbursement for products can differ significantly from payor to payor, and one third-party payor's decision to cover a product does not ensure that other payors will also provide similar coverage. Additionally, the process for determining whether a third-party payor will provide coverage for a product is typically separate from the process for setting the price of such product or establishing the reimbursement rate that the payor will pay for the product once coverage is approved. As a result, the determination of coverage and reimbursement is often a time-consuming and costly process that will require the seller to provide scientific and clinical support for the use of the drug candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases at short notice, and we believe that changes in these rules and regulations are likely.

Moreover, increasing efforts by governmental and third-party payors in the United States to cap or reduce healthcare costs may cause such organizations to limit both coverage and the level of reimbursement for newly approved products and, as a result, they may not cover or provide adequate payment to support the commercialization of PIPE-791 or PIPE-307. We expect that any commercialization of PIPE-791 and PIPE-307 will be subject to pricing pressures due to the trend toward managed healthcare, the increasing influence of health maintenance organizations, and additional legislative, administrative, or regulatory changes. The downward pressure on healthcare costs in general, particularly prescription drugs and biologics and surgical procedures and other treatments, has become intense. As a result, increasingly high barriers are being erected to the entry of new products.

Any commercialization of PIPE-791 and PIPE-307 may also be subject to extensive governmental price controls and other market regulations outside of the United States. The increasing emphasis on cost-containment initiatives in other countries have and, we believe, will continue to put pressure on the pricing and usage of medical products. In many countries, the prices of medical products are subject to varying price control mechanisms as part of national health systems. Other countries allow companies to fix their own prices for medical products but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we or J&J are able to charge for PIPE-791 and PIPE-307, respectively. Accordingly, in markets outside the United States, the reimbursement for PIPE-791 and PIPE-307 may be reduced compared with the United States and may be insufficient to generate commercially reasonable revenue and profits.

The insurance coverage and reimbursement status of newly-approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for an approved products could limit the ability to market the product and decrease the revenues we ultimately receive.

The pricing, coverage and reimbursement for PIPE-791, if approved, must be adequate to support the commercial infrastructure required to market and sell PIPE-791. Our per-patient prices must be sufficient to recover our development and manufacturing costs and potentially achieve profitability. However, sales of any pharmaceutical product depend, in part, on the extent to which such product will be covered by third-party payors, such as federal, state, and foreign government healthcare programs, commercial insurance and managed healthcare organizations, and the level of reimbursement for such product by third-party payors. Significant uncertainty exists as to the coverage and reimbursement status of any newly approved product. Decisions regarding the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. One third-party payor's decision to cover a product does not ensure that other payors will also provide coverage for the product. As a result, we have no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. For products administered under the supervision of a physician in a physician office setting, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs. Additionally, we may not be guaranteed separate reimbursement for the product itself or the treatment or procedure in which the product is used, which may impact physician utilization.

In addition, third-party payors are increasingly reducing reimbursements for pharmaceutical products such as ours. The U.S. government and state legislatures have continued implementing cost-containment programs, including price controls, restrictions on coverage and reimbursement, and requirements for substitution of generic products. Third-party payors are increasingly challenging the prices charged, examining the medical necessity, and reviewing the cost effectiveness of pharmaceutical products, in addition to questioning their safety and efficacy. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit or delay sales of any of our future products. Decreases in third-party reimbursement or a decision by a third-party payor not to cover a product could reduce physician usage and patient demand for any of our future products.

In international markets, reimbursement and healthcare payment are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in the European Union, Canada and other countries has and will continue to put pressure on the pricing and usage of our drug candidates. In many countries, the prices of medicinal products are subject to varying price control mechanisms as part of national health systems. In general, the prices of medical devices under such systems are substantially lower than in the U.S. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. Furthermore, there is no assurance that a product will be considered medically reasonable and necessary for a specific indication, will be considered cost-effective by third-party payors, that an adequate level of reimbursement will be established even if coverage is available, or that the third-party payors' reimbursement policies will not adversely affect the ability of manufacturers to sell products profitably. Accordingly, in markets outside the U.S., the reimbursement for our products may be reduced compared with the U.S. and may be insufficient to generate commercially reasonable revenue and profits.

If we fail to comply with our reporting and payment obligations under the Medicaid Drug Rebate program or other governmental pricing programs, if we participate in these programs, we could be subject to additional rebate requirements, penalties, or other sanctions, which could have a material adverse effect on our business, financial condition, results of operations, and growth prospects.

Under the Medicaid Drug Rebate program, a participating manufacturer is required to pay a rebate to each state Medicaid program for its covered outpatient drugs that are dispensed to Medicaid beneficiaries and paid for by the state Medicaid program as a condition of having federal funds being made available for our drugs under Medicaid and Medicare Part B. Those rebates are based on pricing data reported by the manufacturer on a monthly and quarterly basis to CMS, the federal agency that administers the Medicaid Drug Rebate program. If we fail to pay the required rebate amount or report pricing data on a timely basis, we may be subject to civil monetary penalties and/or termination from the Medicaid Drug Rebate program. Additionally, civil monetary penalties can be applied if we are found to have knowingly submitted any false pricing or product information to the government, if we fail to submit the required pricing data on a timely basis, or if we misclassify or misreport product information. CMS could also decide to terminate our Medicaid drug rebate agreement, in which case federal payments may not be available under Medicaid or Medicare Part B for our covered outpatient drugs.

Federal law requires that a manufacturer also participate in the 340B Drug Pricing program in order for federal funds to be available for the manufacturer's drugs under Medicaid and Medicare Part B. The 340B program requires participating manufacturers to agree to charge no more than the 340B "ceiling price" for the manufacturer's covered outpatient drugs to specified "covered entities," including community health centers and other entities that receive certain federal grants, as well as certain hospitals that serve a disproportionate share of low-income patients. The 340B ceiling price is calculated based on the information reported under the Medicaid Drug Rebate program. If we are found to have knowingly and intentionally charged 340B covered entities more than the statutorily mandated ceiling price, we could be subject to significant civil monetary penalties and/or such failure also could be grounds for the Health Resources and Services Administration to terminate our agreement to participate in the 340B program, in which case our covered outpatient drugs would no longer be eligible for federal payment under the Medicaid or Medicare Part B program.

Federal law also requires that manufacturers report to CMS, on a quarterly basis, average sales price information for certain categories of drugs that are paid under the Medicare Part B program. Manufacturers calculate average sales price based on a statutorily defined formula as well as regulations and guidance. CMS uses the reported information to determine payment rates for drugs under Medicare Part B. If we are found to have made a misrepresentation in the reporting of our average sales price, we may be subject to civil monetary penalties. In addition, if we fail to provide timely information or knowingly provide false information, then we may also be subject to significant civil monetary penalties.

In addition, starting in 2023, manufacturers must pay refunds to Medicare for single source drugs or biologicals, or biosimilar biological products, reimbursed under Medicare Part B and packaged in single-dose containers or single-use packages for units of discarded drug reimbursed by Medicare Part B in excess of 10 percent of total allowed charges under Medicare Part B for that drug. A failure to pay refunds for discarded drugs under the discarded drug refund program could be subject us to civil monetary penalties of 125 percent of the refund amount.

Pricing and rebate calculations are complex, vary across products and programs, and are often subject to interpretation by the manufacturer, governmental agencies, and courts. A manufacturer that becomes aware that its Medicaid reporting for a prior quarter was incorrect, or has changed as a result of recalculation of the pricing data, is obligated to resubmit corrected data up to three years after those

data originally were due. Restatements and recalculations increase the costs for complying with the laws and policies governing the Medicaid Drug Rebate program and could result in an overage or underage in our rebate liability for past quarters. They also may affect the 340B ceiling price and therefore liability under the 340B program.

In order to be eligible to have its products paid for with federal funds under the Medicaid and Medicare Part B programs and purchased by the Department of Veterans Affairs (VA), Department of Defense (DoD), Public Health Service, and Coast Guard (the Big Four agencies), and certain federal grantees, a manufacturer is required to participate in the VA Federal Supply Schedule (FSS) pricing program, established under Section 603 of the Veterans Health Care Act of 1992. Under this program, the manufacturer is obligated to make its covered drugs available for procurement on an FSS contract and charge a price to the Big Four agencies that is no higher than the Federal Ceiling Price (FCP), which is a price calculated pursuant to a statutory formula. The FCP is derived from a calculated price point called the “non-federal average manufacturer price” (the Non FAMP), which the manufacturer calculates and reports to the VA on a quarterly and annual basis. Pursuant to applicable law, knowing provision of false information in connection with a Non FAMP filing can subject a manufacturer to significant penalties for each item of false information. The FSS contract also contains extensive disclosure and certification requirements.

Under Section 703 of the National Defense Authorization Act for FY 2008, the manufacturer is required to pay quarterly rebates to DoD on utilization of its innovator products that are dispensed through DoD’s Tricare network pharmacies to Tricare beneficiaries. The rebates are calculated as the difference between the annual Non FAMP and FCP for the calendar year that the product was dispensed. A manufacturer that overcharges the government in connection with the FSS contract or Tricare Retail Pharmacy Rebate Program, whether due to a misstated FCP or otherwise, is required to refund the difference to the government. Failure to make necessary disclosures and/or to identify contract overcharges can result in allegations against us under the FCA and other laws and regulations.

Additional U.S. federal healthcare reform measures may be implemented in the future, any of which could limit the amounts that the U.S. federal government will pay for healthcare products and services, which could result in reduced demand for our drug candidates or additional pricing pressures.

A variety of risks associated with operating internationally could materially adversely affect our business.

Our business strategy includes potentially expanding internationally if PIPE-791 receives regulatory approval. Doing business internationally involves several risks, including, but not limited to:

- multiple, conflicting, and changing laws and regulations, such as privacy regulations, tax laws, export and import restrictions, economic sanctions laws and regulations, employment laws, regulatory requirements, and other governmental approvals, permits, and licenses;
- failure by us to obtain and maintain regulatory approvals for the use of PIPE-791 in various countries;
- additional potentially relevant third-party patent rights;
- complexities and difficulties in obtaining protection and enforcing our intellectual property;
- difficulties in staffing and managing foreign operations;
- complexities associated with managing multiple payor reimbursement regimes, government payors, or patient self-pay systems;
- limits in our ability to penetrate international markets;

- financial risks, such as longer payment cycles, difficulty collecting accounts receivable, the impact of local and regional financial crises on demand and payment for our products, and exposure to foreign currency exchange rate fluctuations;
- natural disasters, political and economic instability, including wars, terrorism and political unrest, outbreak of disease, PHEs, boycotts, curtailment of trade, and other business restrictions;
- certain expenses, including, among others, expenses for travel, translation, and insurance; and
- regulatory and compliance risks that relate to maintaining accurate information and control over sales and activities that may fall within the purview of the FCPA, its books and records provisions, or its anti-bribery provisions, as well as other applicable laws and regulations prohibiting bribery and corruption.

Any of these factors could significantly harm any future international expansion and operations and, consequently, our business, financial condition, results of operations and prospects.

Risks Related to this Offering and our Class A Common Stock

No active trading market for our Class A common stock currently exists, and an active trading market may not develop and, as a result, it may be difficult for you to sell your shares of our Class A common stock.

Prior to this offering, there has not been an active trading market for our Class A common stock. The lack of an active trading market for our Class A common stock may impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable, reduce the market value of your shares, impair our ability to raise capital, and impair our ability to attract, motivate and retain our employees through equity incentive awards. The initial public offering price of our Class A common stock will be determined by negotiations between us and the underwriters and may not be indicative of the market price of our Class A common stock after this offering. Consequently, you may not be able to sell your Class A common stock at or above the initial public offering price, and may lose a portion or all of your investment.

The market price of our Class A common stock may be volatile and fluctuate substantially, which could result in substantial losses for our stockholders, including purchasers of common stock in this offering.

The market price of our Class A common stock is likely to be highly volatile and may be subject to wide fluctuations in response to various factors, some of which are beyond our control. In addition to the factors discussed in this section titled “Risk factors”, these factors include:

- any delay in the enrollment or ultimate completion of our existing and planned clinical trials for PIPE-791 and our existing clinical trial for PIPE-307;
- the results of our existing and planned clinical trials for PIPE-791 and our existing clinical trial for PIPE-307;
- any delay by J&J in initiating or completing clinical trials for PIPE-307, the results from any clinical trial completed by J&J for PIPE-307 or any decision by J&J not to pursue further clinical development of PIPE-307;
- the results of the clinical trials conducted by competitors developing drug candidates competitive with PIPE-791 or PIPE-307;
- our ability to develop additional drug candidates based on our clinical translational approach;

- any delay in submitting a regulatory filing for PIPE-791 or PIPE-307, and any adverse development or perceived adverse development with respect to the regulatory review of such filing;
- our failure to successfully develop and commercialize PIPE-791 and/or any future drug candidate we develop, and J&J's failure to successfully develop and commercialize PIPE-307;
- inability to obtain additional funding to support our product development plans and operations;
- regulatory or legal developments in the United States and other countries applicable to any drug candidate;
- adverse regulatory decisions;
- changes in the structure of healthcare payment systems;
- adverse developments concerning our CMOs or CROs;
- inability to obtain adequate product supply to support our clinical trials, or the inability to do so at acceptable prices;
- introduction of new products, services or technologies by our competitors;
- our ability to effectively manage our growth;
- failure to meet or exceed financial projections we provide to the public;
- failure to meet or exceed the estimates and projections of the investment community;
- changes in the market valuations of companies similar to us;
- market conditions in the biotechnology and pharmaceutical sectors, and the issuance of new or changed securities analysts' reports or recommendations;
- announcements of significant in-licensing transactions, acquisitions, strategic collaborations, joint ventures or capital commitments by us or our competitors;
- our inability to establish additional collaboration or licensing arrangements that we need on favorable terms, or at all;
- significant lawsuits, including patent or stockholder litigation, and disputes or other developments relating to our proprietary rights, including patents, litigation matters, and our ability to obtain patent protection for our drug candidates;
- additions or departures of key scientific or management personnel;
- sales of our common stock by us or our stockholders in the future;
- trading volume of our common stock; and
- general economic, industry and market conditions.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors, as well as general economic, political, regulatory, and market conditions, may negatively affect the market price of our common stock, regardless of our actual operating performance.

We will have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

We cannot specify with any certainty the particular uses of the net proceeds that we will receive from this offering, but we currently expect to use the net proceeds from this offering (i) to complete our

existing and planned clinical trials for our lead drug candidate, PIPE-791, and our existing clinical trial for PIPE-307, (ii) to fund further research and development activities, including the development of CTX-343, a peripherally-restricted LPA1R antagonist, and (iii) for working capital and general corporate purposes. We will have broad discretion in the application of the net proceeds from this offering, including working capital and other general corporate purposes, and you and other stockholders may disagree with how we spend or invest these proceeds. The failure by our management to apply these funds effectively could adversely affect our business and financial condition. Pending their use, we may invest the net proceeds from our initial public offering in a manner that does not produce income or that loses value. These investments may not yield a favorable return to our investors.

If you purchase shares of our Class A common stock in this offering, you will experience substantial and immediate dilution.

If you purchase shares of our Class A common stock in this offering, you will experience substantial and immediate dilution in the pro forma net tangible book value per share of $ per share as of December 31, 2023, based on an assumed initial public offering price of our Class A common stock of $ per share, the midpoint of the estimated price range on the cover page of this prospectus, because the price that you pay will be substantially greater than the pro forma net tangible book value per share of the Class A common stock that you acquire. This dilution is due in large part to the fact that our earlier investors paid substantially less than the initial public offering price when they purchased their shares of our capital stock. You will experience additional dilution upon exercise of options to purchase Class A common stock under our equity incentive plans, upon vesting of options to purchase common stock under our equity incentive plans, if we issue restricted stock to our employees under our equity incentive plans or if we otherwise issue additional shares of our Class A common stock.

Substantial amounts of our outstanding shares may be sold into the market when lock-up periods end. If there are substantial sales of shares of our Class A common stock, the price of our common stock could decline.

The price of our Class A common stock could decline if there are substantial sales of our Class A common stock, particularly sales by our directors, executive officers and significant stockholders, or if there is a large number of shares of our Class A common stock available for sale and the market perceives that sales will occur. After this offering, we will have outstanding shares of our Class A common stock and shares of our Class B common stock, based on the number of shares outstanding as of December 31, 2023, and assuming an initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus. All of the shares of Class A common stock sold in this offering will be available for sale in the public market, unless purchased by our affiliates or existing stockholders. Substantially all of our outstanding shares of common stock are currently restricted from resale as a result of market-standoff agreements and lock-up agreements, which restrictions may be waived by Goldman Sachs & Co. LLC and Morgan Stanley, with or without notice as more fully described in the section titled “Underwriting.” These shares will become available to be sold 181 days after the date of this prospectus; provided that shares held by directors, executive officers and other affiliates will be subject to volume limitations under Rule 144 under the Securities Act of 1933, as amended (Securities Act), and various vesting agreements.

After this offering, certain of our stockholders will have rights, subject to some conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or our stockholders, subject to lock-up agreements. We also intend to register shares of Class A common stock that we have issued and may issue under our employee equity incentive plans. Once we register these shares, they will be able to be sold freely in the public market upon issuance, subject to existing market standoff or lock-up agreements.

The market price of the shares of our Class A common stock could decline as a result of the sale of a substantial number of our shares of Class A common stock in the public market or the perception in the market that the holders of a large number of shares intend to sell their shares.

After this offering, our directors, executive officers and stockholders affiliated with our directors and executive officers will continue to own a significant percentage of our common stock and, if they choose to act together, will be able to exert significant influence over matters subject to stockholder approval.

Following this offering, our directors, executive officers, and stockholders affiliated with our directors and executive officers will continue to exert significant influence on us. Upon the closing of this offering, these holders will beneficially own approximately % of the voting power of our outstanding common stock, or approximately % if the underwriters exercise their option to purchase additional shares in full, based on the number of shares outstanding as of December 31, 2023, and assuming an initial public offering price of $ per share (the midpoint of the estimated price range set forth on the cover page of this prospectus). As a result, these holders, acting together, will have significant control over all matters that require approval of our stockholders, including the election of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transactions. The interests of these holders may not always coincide with our corporate interests or the interests of other stockholders, and they may act in a manner with which you may not agree or that may not be in the best interests of our other stockholders.

The dual series structure of our common stock may limit your ability to influence corporate matters and may limit your visibility with respect to certain transactions.

The dual class structure of our common stock may limit your ability to influence corporate matters. Holders of our Class A common stock are entitled to one vote per share, while holders of our Class B common stock are not entitled to any votes. Nonetheless, each share of our Class B common stock may be converted at any time into one share of our Class A common stock at the option of its holder by providing written notice to us, subject to the limitations provided for in our amended and restated certificate of incorporation to become effective upon the closing of this offering. Consequently, if holders of our Class B common stock following this offering exercise their option to make this conversion, this will have the effect of increasing the relative voting power of those prior holders of our Class B common stock, and correspondingly decreasing the voting power of the holders of our Class A common stock, which may limit your ability to influence corporate matters. Additionally, stockholders who hold, in the aggregate, more than 10% of our Class A common stock and Class B common stock, but 10% or less of our Class A common stock, and are not otherwise an insider, may not be required to report changes in their ownership due to transactions in our Class B common stock pursuant to Section 16(a) of the Exchange Act, and may not be subject to the short-swing profit provisions of Section 16(b) of the Exchange Act.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our results of operation could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

The preparation of financial statements in conformity with U.S. generally accepted accounting principles (U.S. GAAP) requires management to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes. We base our estimates on historical experience and estimates and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other

sources. For example, in connection with the implementation of the new revenue accounting standard if and when we have product sales, management makes judgments and assumptions based on our interpretation of the new standard. The new revenue standard is principle-based and interpretation of those principles may vary from company to company based on their unique circumstances. It is possible that interpretation, industry practice and guidance may evolve as we apply the new standard. If our assumptions underlying our estimates and judgements relating to our critical accounting policies change or if actual circumstances differ from our assumptions, estimates or judgements, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our common stock.

We are an "emerging growth company," and a "smaller reporting company" and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies or smaller reporting companies will make our common stock less attractive to investors.

We are an "emerging growth company" as defined in the JOBS Act and we intend to take advantage of some of the exemptions from reporting requirements that are applicable to other public companies that are not emerging growth companies, including:

- the option to present only two years of audited financial statements, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of Financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes Oxley Act;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements; and
- not being required to disclose certain executive compensation-related items such as the correlation between executive compensation and performance and comparisons of the chief executive officer's compensation to median employee compensation.

In addition, Section 107 of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards, delaying the adoption of these accounting standards until they would apply to private companies. We have elected to avail ourselves of this exemption and, as a result, we will adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for private companies.

We may take advantage of these reporting exemptions until we are no longer an emerging growth company. We will remain an emerging growth company until the earlier of (1) the last day of the fiscal year (a) following the fifth anniversary of the completion of this offering, (b) in which we have total annual gross revenue of at least $1.235 billion or (c) in which we are deemed to be a large accelerated filer, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th and (2) the date on which we have issued more than $1.0 billion in non-convertible debt during the prior three-year period.

Even after we no longer qualify as an emerging growth company, we may continue to qualify as a "smaller reporting company," which would allow us to take advantage of many of the same exemptions from disclosure requirements including reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements, if either (i) the market

value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million.

We cannot predict if investors will find our common stock less attractive because we will rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

We do not intend to pay cash dividends for the foreseeable future. Consequently, you must rely on sales of our Class A common stock after price appreciation, which may never occur, as the only way to realize any future gains on your investment.

We have never declared nor paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and expansion of our business, and we do not expect to declare or pay any dividends in the foreseeable future. Consequently, stockholders must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment.

Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect at the completion of this offering could make a merger, tender offer or proxy contest difficult, thereby depressing the trading price of our Class A common stock.

Following the completion of this offering, our status as a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law may discourage, delay or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the person becomes an interested stockholder, even if a change of control would be beneficial to our existing stockholders. In addition, our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect at the completion of this offering will contain provisions that may make the acquisition of our company more difficult, including the following:

- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of our stockholders;
- the requirement that a special meeting of stockholders may be called only by a majority vote of our entire board of directors, the chair of our board of directors or our chief executive officer, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement for the affirmative vote of holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our amended and restated certificate of incorporation or our amended and restated bylaws, which may inhibit the ability of an acquirer to effect such amendments to facilitate an unsolicited takeover attempt; and

- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

In addition, as a Delaware corporation, we are subject to Section 203 of the Delaware General Corporation Law. These provisions may prohibit large stockholders, in particular those owning 15% or more of our outstanding voting stock, from merging or combining with us for a certain period of time. While a Delaware corporation may opt out of this provision by express provision in its original certificate of incorporation or by amendment to its certificate of incorporation or bylaws approved by its stockholders, we have not opted out of this provision.

These and other provisions in our amended and restated certificate of incorporation, amended and restated bylaws and Delaware law could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by our then-current board of directors, including delay or impede a merger, tender offer or proxy contest involving our company. The existence of these provisions could negatively affect the price of our common stock and limit opportunities for you to realize value in a corporate transaction.

For information regarding these and other provisions, see the section titled "Description of Capital Stock."

Our amended and restated certificate of incorporation, which will be in effect at the completion of this offering, will provide that the Court of Chancery of the State of Delaware and the U.S. federal district courts are the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation, which will be in effect at the completion of this offering, will provide that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our certificate of incorporation or our bylaws or any action asserting a claim against us that is governed by the internal affairs doctrine, unless we consent in writing to the selection of an alternative forum to the extent permitted by law.

This provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. Our certificate of incorporation will further provide that the U.S. federal district courts will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act, including all causes of action asserted against any defendant named in such complaint. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees and may result in stockholders incurring additional expenses in bringing a claim in the forum designated by us, which

may discourage these types of lawsuits. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions.

General Risk Factors

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports published by securities or industry analysts about our business and the drug candidates we have developed. Securities and industry analysts do not currently, and may never, publish research on our company. If no or only very few securities analysts commence coverage of us, or if industry analysts cease coverage of us, the trading price for our common stock would be negatively affected. If one or more of the analysts who cover us downgrade our common stock or publish inaccurate or unfavorable research about our business or the drug candidates we have developed, our common stock price would likely decline. If one or more of these analysts cease coverage of us or fail to publish reports on us regularly, demand for our common stock could decrease, which might cause our common stock price and trading volume to decline.

We could be subject to securities class action litigation.

In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because development stage pharmaceutical companies have experienced significant stock price volatility in recent years. If we face such litigation, it could result in substantial costs and a diversion of management's attention and resources, which could harm our business.

Requirements associated with being a public company will increase our costs significantly, as well as divert significant company resources and management attention.

After the completion of this offering, we will be subject to the reporting requirements of the Exchange Act and the other rules and regulations of the SEC and Nasdaq related to public companies. Compliance with the various reporting and other requirements applicable to public companies requires considerable time and attention of management and we will incur significant legal, accounting and other expenses that we did not incur as a private company. We cannot assure you that we will satisfy our obligations as a public company on a timely basis.

In addition, as a public company, it may be more difficult or more costly for us to obtain certain types of insurance, including directors' and officers' liability insurance, and we may be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified personnel to serve on our board of directors, our board committees or as executive officers.

If we fail to maintain proper and effective internal controls, our ability to produce accurate and timely financial statements could be impaired, which could result in sanctions or other penalties that could harm our business. As a result of becoming a public company, we will be obligated to develop and maintain proper and effective internal controls over financial reporting and any failure to maintain the adequacy of these internal controls may adversely affect investor confidence in us, and, as a result, the value of our common stock.

To comply with the requirements of being a public company, we will need to undertake various actions, including implementing new internal controls and procedures and hiring additional accounting

or internal audit staff. The Sarbanes-Oxley Act requires that we maintain effective disclosure controls and procedures and internal control over financial reporting. However, while we remain a smaller reporting company, we will not be required to include an attestation report on internal control over financial reporting issued by our independently registered public accounting firm. We are continuing to develop and refine our disclosure controls and other procedures that are designed to ensure that information required to be disclosed by us in the reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that information required to be disclosed in reports under the Exchange Act, is accumulated and communicated to our principal executive and financial officers. Our current controls and any new controls that we develop may become inadequate and weaknesses in our internal control over financial reporting may be discovered in the future. Any failure to develop or maintain effective controls when we become subject to this requirement could negatively affect the results of periodic management evaluations and annual independent registered public accounting firm attestation reports regarding the effectiveness of our internal control over financial reporting that we may be required to include in our periodic reports we will file with the SEC under Section 404 of the Sarbanes-Oxley Act, harm our operating results, cause us to fail to meet our reporting obligations or result in a restatement of our prior period financial statements. In the event that we are not able to demonstrate compliance with the Sarbanes-Oxley Act, that our internal control over financial reporting is perceived as inadequate or that we are unable to produce timely or accurate financial statements, investors may lose confidence in our operating results and the price of our common stock could decline. In addition, if we are unable to continue to meet these requirements, we may be unable to remain listed on Nasdaq.

Our independent registered public accounting firm will not be required to formally attest to the effectiveness of our internal control over financial reporting until the later of (i) our second annual report or (ii) the first annual report required to be filed with the SEC following the date we are no longer an “emerging growth company,” as defined in the JOBS Act, or a “smaller reporting company” as defined by the SEC.

We may discover weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our financial statements. In addition, our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are not able to comply with the requirements of Section 404 of the Sarbanes-Oxley Act in a timely manner, or if we are unable to maintain proper and effective internal controls over financial reporting, we may not be able to produce timely and accurate financial statements. If that were to happen, our investors could lose confidence in our reported financial information, the market price of our stock could decline and we could be subject to sanctions or investigations by the SEC or other regulatory authorities including equivalent foreign authorities.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

We have incurred substantial losses during our history, and we expect to continue to incur substantial loses in future years as we conduct clinical trials for PIPE-791 and complete the clinical trial for PIPE-307, and we may never achieve profitability.
Changes in tax laws or regulations may adversely impact our ability to utilize all, or any, of our net operating loss carryforwards (NOLs). For example, legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act (TCJA) significantly revised the Internal Revenue Code of 1986, as amended (the Code). Future guidance from the IRS

and other tax authorities with respect to the TCJA may affect us, and certain aspects of the TCJA could be repealed or modified in future legislation. For example, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) modified certain provisions of the TCJA. Under the TCJA, as modified by the CARES Act, unused losses generated in taxable years ending after December 31, 2017 will not expire and may be carried forward indefinitely, but the deductibility of such NOLs in tax years beginning after December 31, 2020, is limited to 80% of taxable income. It is uncertain if and to what extent various states will conform to the TCJA or the CARES Act.

Under Sections 382 and 383 of the Code if a corporation undergoes an "ownership change," generally defined as a greater than 50 percentage point change (by value) in its equity ownership by certain stockholders over a three-year period, the corporation's ability to use its pre-change NOLs and other pre-change tax attributes (such as research tax credits) to offset its post-change income or taxes may be limited. Similar provisions of state tax law may also apply to limit our use of accumulated state tax attributes. In addition, at the state level, there may be periods during which the use of NOLs is suspended or otherwise limited, which could accelerate or permanently increase state taxes owed. We have completed an ownership analysis and identified that ownership changes occurred in July 2012, April 2018, March 2019 and February 2021. As a result of limitations arising from the prior ownership changes, federal and California net operating loss carry-forwards and federal R&D tax credits were removed from our inventory of deferred tax assets. As of December 31, 2023, we had federal and California tax loss carry forwards of approximately $37.3 million and $81.4 million, respectively. Out of the total federal net operating losses, approximately $37.3 million were generated after December 31, 2017, and therefore do not expire. The remaining federal and state net operating loss carry forwards begin to expire in 2035 and 2036, respectively, if unused. We may experience an ownership change in connection with this offering or in the future because of subsequent shifts in our stock ownership (some of which our outside of our control). If further requisite ownership changes occur, the amount of remaining tax attribute carryforwards available to offset taxable income and reduce income tax expense in future years may be further restricted or eliminated. As a result, even if we attain profitability, we may be unable to use a material portion of our NOLs and other tax attributes based on restrictions in the Code, which could adversely affect our future cash flows and results of operations.

Changes in tax laws and the implementation of tax laws could adversely affect us.

The tax regimes we are subject to or operate under, including with respect to income and non-income taxes, are unsettled and may be subject to significant change. Changes in tax laws, regulations, or rulings, or changes in interpretations of existing laws and regulations, could materially adversely affect our company. For example, the TCJA, the CARES Act, and the IRA enacted many significant changes to the U.S. tax laws. Future guidance from the IRS and other tax authorities with respect to such legislation may affect us, and certain aspects thereof could be repealed or modified in future legislation.

We use our best judgment in attempting to quantify and reserve for these tax obligations. However, a challenge by the IRS or another taxing authority, our ability to utilize tax benefits such as carryforwards or tax credits, or a deviation from other tax-related assumptions could have a material adverse effect on our business, results of operations or financial condition. In addition, new legislation or regulations which could affect our tax burden could be enacted by Congress or another governmental authority. We cannot predict the timing or extent of such tax-related developments which could have a negative impact on our financial position and results of operation.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. All statements other than statements of historical facts contained in this prospectus, including statements regarding our future results of operations and financial position, future revenue, business strategy, prospects, products, planned preclinical studies and clinical trials, results of clinical trials, research and development costs, regulatory approvals, timing and likelihood of success, as well as plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that are in some cases beyond our control and may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

The words “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” or “would” or the negative of these terms or other similar expressions are intended to identify forward looking statements. Forward-looking statements contained in this prospectus include, but are not limited to, statements about:

- the likelihood of our clinical trials demonstrating the safety and efficacy of our drug candidates;
- the timing and progress of our current clinical trials, the expected results of these clinical trials and the timing of initiation of our future clinical trials;
- our plans relating to the clinical development of our current and future drug candidates, including the size, number and disease areas to be evaluated;
- J&J’s plans related to the clinical development of PIPE-307;
- our clinical translational approach, and our ability to identify and develop drug candidates that can potentially treat NI&I diseases by targeting biological pathways associated with specific clinical impairment to alter the course of disease;
- the size of the market opportunities for our drug candidates;
- the rate and degree of market acceptance and clinical utility of our drug candidates;
- our plans relating to commercializing our drug candidates, if approved;
- the success of competing therapies and technologies that are or may become available;
- the beneficial characteristics, safety, efficacy, therapeutic effects and potential advantages of our drug candidates;
- the timing or likelihood of regulatory filings and approval for our drug candidates;
- our ability to obtain and maintain regulatory approval of our drug candidates and our drug candidates to meet existing or future regulatory standards;
- our plans relating to the further development and manufacturing of our drug candidates, including additional indications for which we may pursue;
- our ability to successfully identify and complete transactions to in-license or otherwise acquire additional drug candidates, technologies, products or businesses;
- our ability to attract and to enter into commercial arrangements with third parties who have development, regulatory, manufacturing and commercialization expertise;
- our plans and ability to obtain or protect intellectual property rights, including extensions of existing patent terms where available, as well as our ability to secure and maintain intellectual property regulatory rights and regulatory protections;

- our ability to retain our senior management;
- the need to hire additional personnel and our ability to attract and retain such personnel;
- the accuracy of our estimates regarding expenses, capital requirements and needs for additional financing;
- the sufficiency of our existing capital resources to fund our future operating expenses and capital expenditure requirements;
- the period during which we expect we will qualify as an emerging growth company under the JOBS Act or a smaller reporting company; and
- our anticipated use of our existing cash, cash equivalents and short-term investments and the proceeds from this offering.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in the section titled “Risk Factors” elsewhere in this prospectus. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, advancements, discoveries, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, except as required by law, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in our expectations.

You should read this prospectus and the documents that we reference in this prospectus and have filed with the SEC as exhibits to the registration statement of which this prospectus is a part with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and you are cautioned not to unduly rely upon these statements.

MARKET, INDUSTRY AND OTHER DATA

This prospectus contains estimates, projections and other information concerning our industry, our business and the markets for our drug candidates, including data regarding the estimated size of such markets and the incidence of certain medical conditions. We obtained the industry, market and similar data set forth in this prospectus from our internal estimates and research, including surveys and studies we have sponsored and/or conducted, and from published studies from third parties, including governmental agencies. Our estimates of the potential market opportunities for our drug candidates include a number of key assumptions based on our industry knowledge, industry publications and third-party research, surveys and studies, which may fail to accurately reflect market opportunities. Information based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by us and third parties, industry, medical and general publications, government data and similar sources.

The content of these third-party sources, except to the extent specifically set forth in this prospectus, does not constitute a portion of this prospectus and is not incorporated herein.

Certain monetary amounts, percentages, and other figures included elsewhere in this prospectus have been subject to rounding adjustments. Accordingly, figures shown as totals in certain tables or charts may not be the arithmetic aggregation of the figures that precede them, and figures expressed as percentages in the text may not total 100 percent or, as applicable, when aggregated may not be the arithmetic aggregation of the percentages that precede them.

USE OF PROCEEDS

We estimate that the net proceeds from this offering will be approximately $ million, or $ million if the underwriters exercise their option to purchase additional shares in full, after deducting estimated underwriting discounts and estimated offering expenses payable by us, assuming an initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by $ million, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and estimated offering expenses payable by us. An increase (decrease) of 1 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) our net proceeds from this offering by approximately $ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and estimated offering expenses payable by us. The principal purposes of this offering are to increase our financial flexibility and create a public market for our common stock.

We intend to use the net proceeds of this offering, together with our existing cash, cash equivalents and marketable securities, as follows:

- approximately $ million to advance the development of our LPA1R antagonist program, including the completion of our Phase 1b PET imaging trial and Phase 2 clinical trials for our lead drug candidate, PIPE-791, in IPF and Progressive MS;
- Approximately $ to complete our Phase 2 clinical trial of PIPE-307 for the potential treatment of RRMS; and
- the remaining proceeds to fund other research and development activities, including the development of our peripherally-restricted LPA1R antagonist drug candidate, CTX-343, and general corporate purposes, which we expect will include the hiring of additional personnel, capital expenditures and the costs of operating as a public company.

Based on our current operating plan, we estimate that our existing cash, cash equivalents, and marketable securities as of the date of this prospectus, together with the estimated net proceeds from this offering, will be sufficient to fund our projected operations through at least . This estimate assumes that we do not receive any additional payments under our collaboration with J&J for the development of PIPE-307, and assumes that we do not opt in to fund a portion of all Phase 3 development costs for PIPE-307 in any indication.

We may also use a portion of the net proceeds from this offering to acquire, in-license or invest in products, technologies or businesses that complement our business. However, we do not have binding agreements or commitments for any acquisitions or investments at this time.

This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering or the amounts that we will actually spend on the uses set forth above. The amounts and timing of our actual expenditures and the extent of our preclinical, clinical and future development activities may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from our ongoing and planned clinical trials, the timing

and costs associated with the manufacture and supply of products for clinical development or commercialization and any unforeseen cash needs. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering.

The expected net proceeds of this offering will not be sufficient for us to fund any of our products through regulatory approval, and we will need to raise substantial additional capital to complete the development and commercialization of our products.

Pending our use of the net proceeds from this offering, we plan to invest the net proceeds in a variety of capital preservation investments, including short-term interest-bearing investment-grade securities, certificates of deposit or government securities.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock and we do not currently intend to pay any cash dividends on our capital stock for the foreseeable future. We currently intend to retain all available funds and any future earnings to support operations and to finance the growth and development of our business. Any future determination to declare and pay dividends will be made at the discretion of our board of directors subject to applicable laws and will depend upon, among other factors, our results of operations, financial condition, business prospects, contractual restrictions, capital requirements and other factors our board of directors may deem relevant. Our future ability to pay cash dividends on our capital stock may also be limited by the terms of any future debt or preferred securities or any future credit facility.

CAPITALIZATION

The following table sets forth our cash, cash equivalents, and marketable securities and total capitalization as of December 31, 2023, as follows:

- on an actual basis;
- on a pro forma basis to reflect: (i) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 89,030,591 shares of our common stock, consisting of 89,030,591 shares of our Class A common stock and no shares of Class B common stock; and (ii) the filing and effectiveness of our amended and restated certificate of incorporation, each of which will occur immediately prior to the completion of this offering; and
- on a pro forma as adjusted basis to give effect to: (i) the pro forma adjustments set forth above; and (ii) the sale and issuance of shares of our Class A common stock by us in this offering, based upon the receipt by us of the estimated net proceeds from this offering at the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, and after deducting the underwriting discounts and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted set forth in the table below is illustrative only and will be adjusted on the actual initial public offering price and other terms of this offering determined at pricing. This information should be read in conjunction with our financial statements and the related notes appearing elsewhere in this prospectus, as well as the section of this prospectus titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

	As of December 31, 2023		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
	(unaudited)		
	(in thousands, except share and per share data)		
Cash, cash equivalents, and marketable securities	$125,190	$	$
Series A convertible preferred stock, $0.001 par value per share; 10,000,000 shares authorized, 10,000,000 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	$ 11,779	$ —	$
Series A-1 convertible preferred stock, $0.001 par value per share; 8,000,000 shares authorized, 7,965,485 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	9,383		
Series B convertible preferred stock, $0.001 par value per share; 18,819,899 shares authorized, 18,731,664 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	31,595		
Series C convertible preferred stock, $0.001 par value per share; 58,000,000 shares authorized, 52,333,442 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	139,865		
Stockholders’ (deficit) equity:			
Preferred stock, $0.001 par value per share; no shares authorized, issued and outstanding, actual; shares authorized, no shares issued and outstanding, pro forma and pro forma as adjusted	—		

	As of December 31, 2023		
	Actual	Pro Forma	Pro Forma As Adjusted(1)
	(unaudited) (in thousands, except share and per share data)		
Class A common stock, $0.001 par value per share; 127,000,000 shares authorized, 13,151,230 shares issued and outstanding, actual; shares authorized, shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	13		
Class B common stock, $0.001 par value per share; 94,819,899 shares authorized, no shares issued and outstanding, actual; shares authorized, shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	—		
Additional paid-in capital	7,087		
Accumulated deficit	(75,144)		
Total stockholders' (deficit) equity	(67,936)		
Total capitalization	$ 124,682	$	$

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated offering price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted amount of each of cash, cash equivalents, and marketable securities, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $ million, assuming that the number of shares of Class A common stock offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase (decrease) the number of shares we are offering. Each increase (decrease) of 1.0 million shares in the number of shares of Class A common stock offered by us would increase (decrease) our pro forma as adjusted amount of each of cash, cash equivalents, and marketable securities, additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $ million, assuming the assumed initial public offering price of $ per share, which is the midpoint of the estimated offering price range set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts. The pro forma as adjusted information discussed above is illustrative only and will be adjusted based on the actual initial public offering price and other terms of our initial public offering determined at pricing.

The table above excludes the following:

- 14,969,471 shares of Class A common stock issuable upon the exercise of options outstanding as of December 31, 2023, with a weighted-average exercise price of $1.06 per share;
- shares of Class A common stock issuable upon the exercise of options granted after December 31, 2023 and through , with a weighted-average exercise price of $ per share;
- 88,235 shares of Class A common stock issuable upon the exercise of an outstanding warrant to purchase shares of our Series B convertible preferred stock, which will convert into a warrant to purchase 88,235 shares of our common stock in connection with the completion of this offering, at an exercise price of $1.70 per share;
- 2,812,543 shares of Class A common stock reserved for future issuance under our 2012 Plan, as of December 31, 2023, which shares will be added to the shares to be reserved under our 2024 Plan upon its effectiveness;

- shares of Class A common stock reserved for future issuance under our 2024 Plan, as well as any future automatic increases in the number of shares of Class A common stock reserved for future issuance under this plan; and
- shares of Class A common stock reserved for future issuance under our 2024 ESPP, as well as any future automatic increases in the number of shares of Class A common stock reserved for future issuance under this plan.

DILUTION

If you invest in our Class A common stock in this offering, your ownership interest will be immediately diluted to the extent of the difference between the initial public offering price per share of our Class A common stock and the pro forma as adjusted net tangible book value per share of our Class A common stock immediately after this offering. Dilution results from the fact that the per share offering price of our Class A common stock is substantially higher than the book value per share attributable to our existing stockholders.

Historical net tangible book value (deficit) per share represents our total tangible assets less our liabilities and preferred stock that is not included in equity divided by the total number of shares of common stock outstanding. As of December 31, 2023, our historical net tangible book value (deficit) was approximately $(67.9) million, or $(5.17) per share based on 13,151,230 shares of Class A common stock and no shares of Class B common stock outstanding as of that date.

Our pro forma net tangible book value as of December 31, 2023 was $ million, or $ per share of common stock. Our pro forma net tangible book value per share represents the amount of our total tangible assets (which excludes deferred offering costs) less our total liabilities and divided by the total number of shares of our common stock outstanding as of December 31, 2023, after giving effect to (i) the automatic conversion of 89,030,591 shares of our outstanding convertible preferred stock as of December 31, 2023 into an aggregate of 89,030,591 shares of our common stock, consisting of 89,030,591 shares of our Class A common stock and no shares of Class B common stock immediately prior to the completion of this offering and (ii) the filing and effectiveness of our amended and restated certificate of incorporation in Delaware.

Net tangible book value dilution per share to new investors in this offering represents the difference between the amount per share paid by purchasers of shares of Class A common stock in this offering and the pro forma as adjusted net tangible book value per share of our common stock immediately after completion of this offering. After giving effect to (i) the pro forma adjustments set forth above and (ii) our sale in this offering of shares of our Class A common stock at the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of December 31, 2023 would have been approximately $ million, or $ per share of our common stock. This represents an immediate increase in pro forma net tangible book value of $ per share to our existing stockholders and an immediate dilution in net tangible book value of $ per share to investors in this offering, as illustrated in the following table:

The following table illustrates this dilution to new investors on a per share basis:

Assumed initial public offering price per share		$
Historical net tangible book value (deficit) per share as of December 31, 2023	$(5.17)	
Increase (decrease) in historical net tangible book value (deficit) per share attributable to pro forma adjustments		
Pro forma net tangible book value (deficit) per share as of December 31, 2023		
Increase in pro forma net tangible book value per share attributable to new investors in this offering		
Pro forma as adjusted net tangible book value per share immediately after this offering		
Dilution per share to new investors purchasing shares in this offering		$

If the underwriters' option to purchase additional shares in this offering is exercised in full, the pro forma as adjusted net tangible book value would be $ per share, the increase in the pro forma net tangible book value per share for existing stockholders would be $ per share and the dilution to new investors participating in this offering would be $ per share.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted net tangible book value, by $ per share and the dilution per share to new investors by $ per share, assuming the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, after deducting estimated underwriting discounts and estimated offering expenses payable by us. We may also increase (decrease) the number of shares we are offering. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1 million shares in the number of shares we are offering would increase (decrease) our pro forma as adjusted net tangible book value by approximately $ million, or $ per share, and the pro forma dilution per share to investors in this offering by $ per share, assuming that the assumed initial public offering price remains the same, and after deducting estimated underwriting discounts and estimated offering expenses payable by us. The pro forma information discussed above is illustrative only and will change based on the actual initial public offering price, number of shares and other terms of this offering determined at pricing.

The following table summarizes, on a pro forma as adjusted basis described above as of December 31, 2023, the total cash consideration paid and the average price per share paid by our existing stockholders and by our new investors purchasing shares in this offering at the assumed offering price of our Class A common stock of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, before deducting underwriting discounts and commissions, and estimated offering expenses payable by us:

	Shares Purchased		Total Consideration		Weighted-Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New investors					
Total		100%	$	100%	

In addition, if the underwriters' option to purchase additional shares is exercised in full, the number of shares held by existing stockholders will be reduced to % of the total number of shares of common stock to be outstanding upon completion of this offering, and the number of shares of Class A common stock held by new investors participating in this offering will be further increased to % of the total number of shares of common stock to be outstanding upon completion of the offering.

Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the estimated price range set forth on the cover page of this prospectus, would increase (decrease) total consideration paid by new investors by $ and increase (decrease) the percent of total consideration paid by new investors by %, assuming the number of shares we are offering, as set forth on the cover page of this prospectus, remains the same, after deducting estimated underwriting discounts. We may also increase or decrease the number of shares we are offering. An increase (decrease) of 1 million in the number of shares offered by us would increase (decrease) total consideration paid by new investors by $, assuming that the assumed initial price to the public remains the same, and after deducting the estimated underwriting discounts.

The foregoing discussion and tables are based on 102,181,821 shares of our Class A common stock outstanding as of December 31, 2023, and gives effect to the automatic conversion of 89,030,591 shares of our outstanding convertible preferred stock as of December 31, 2023 into an aggregate of 89,030,591 shares of our common stock, consisting of 89,030,591 shares of our Class A common stock and no shares of our Class B common stock immediately prior to the completion of this offering, and excludes:

- 14,969,471 shares of Class A common stock issuable upon the exercise of options outstanding as of December 31, 2023 with a weighted-average exercise price of $1.06 per share;
- shares of Class A common stock issuable upon the exercise of options granted after December 31, 2023 and through with a weighted-average exercise price of $ per share;
- 88,235 shares of Class A common stock issuable upon the exercise of an outstanding warrant to purchase shares of our Series B convertible preferred stock, which will convert into a warrant to purchase 88,235 shares of our Class A common stock in connection with the completion of this offering, at an exercise price of $1.70 per share;
- 2,812,543 shares of Class A common stock reserved for future issuance under our 2012 Plan, as amended, as of December 31, 2023, which shares will be added to the shares to be reserved under our 2024 Plan upon its effectiveness;
- shares of Class A common stock reserved for future issuance under our 2024 Plan, as well as any future automatic increases in the number of shares of Class A common stock reserved for future issuance under this plan; and
- shares of Class A common stock reserved for future issuance under our 2024 ESPP, as well as any future automatic increases in the number of shares of Class A common stock reserved for future issuance under this plan.

To the extent that any outstanding options or warrants are exercised or new awards are granted under our equity compensation plans, new investors will experience further dilution.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and the related notes to those statements included elsewhere in this prospectus. In addition to historical financial information, the following discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results and timing of selected events may differ materially from those anticipated in these forward-looking statements as a result of many factors, including, but not limited to, those discussed under the section titled "Risk Factors" and elsewhere in this prospectus. See the section titled "Special Note Regarding Forward-Looking Statements" elsewhere in this prospectus.

Overview

We are a clinical stage biopharmaceutical company focused on discovering and developing novel, oral small molecule therapies that target biological pathways associated with specific clinical impairments for the treatment of NI&I indications with high unmet need.

We have focused our efforts on developing selective compounds targeting challenging molecular pathways, and through these efforts, have built a portfolio of small molecule drug candidates. Our wholly-owned lead asset, PIPE-791, is a novel, brain penetrant, small molecule inhibitor of LPA1R in development for IPF and Progressive MS. LPA1R antagonism is a clinically validated mechanism, and we believe that our preclinical studies and Phase 1 healthy volunteer data support the continued development of PIPE-791 for both IPF and Progressive MS. Specifically, based on its high bioavailability, low plasma protein binding, and long receptor residence time in our preclinical studies compared to the preclinical data of other LPA1R antagonists that we know are currently in development, we also believe PIPE-791 has the potential to be a differentiated LPA1R therapy. We completed a Phase 1 clinical trial of PIPE-791 in healthy volunteers in support of clinical development in both IPF and Progressive MS. We plan to submit a CTA to the MHRA to commence a Phase 1b open-label trial of PIPE-791 to measure the relationship of PK to lung and brain receptor occupancy by PET imaging in 2024. This Phase 1b trial will inform dose selection for our planned future Phase 2 trials of PIPE-791 in IPF and Progressive MS. Our second drug candidate, PIPE-307, is a novel, small molecule selective inhibitor of the muscarinic type M1R, in development for depression and RRMS. M1R antagonism has been clinically validated in third-party trials in both depression and RRMS by scopolamine and clemastine, respectively. We have completed two Phase 1 trials of PIPE-307 in healthy volunteers and have initiated a Phase 2 trial of PIPE-307 for the potential treatment of RRMS. To our knowledge, PIPE-307 is the most clinically advanced selective M1R antagonist in development. We are developing PIPE-307 in collaboration with J&J.

In addition, we are leveraging our drug discovery capabilities synergistically with our clinical portfolio. In January 2024, we nominated and commenced preclinical studies for CTX-343, a peripherally-restricted (unable to cross the BBB) LPA1R antagonist. In parallel, we are actively conducting preclinical and discovery-phase experiments targeting other NI&I indications where our internally-discovered molecules may have therapeutic potential.

Since the commencement of our operations in 2012, we have devoted substantially all of our resources in support of our product development efforts, hiring personnel, raising capital to support and expand such activities and providing general and administrative support for these operations. We have not generated any revenue from product sales and have funded our operations from the issuance of convertible promissory notes, private placements of our preferred stock and a term loan. We also received $50.0 million in an upfront payment from J&J pursuant to the J&J License Agreement. We have incurred a net loss of $24.3 million for the year ended December 31, 2022 and generated $22.7 million

net income for the year ended December 31, 2023. As of December 31, 2023, we had an accumulated deficit of $75.1 million. We expect to continue to incur significant losses for the foreseeable future.

We expect our operating expenses to significantly increase as we continue to develop, conduct clinical trials, and seek regulatory approvals for our drug candidates, engage in other research and development activities to expand our pipeline of drug candidates, expand our operations and headcount, maintain and expand our intellectual property portfolio, and, if we obtain approval for one or more of our drug candidates, launch commercial activities. We also expect to incur additional operating expenses as we begin operating as a public company. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing and scope of our clinical trials and our expenditures on other research and development activities.

As we continue to pursue our business plan, we expect to finance our operations through both public and private sales of equity, debt financings or other commercial arrangements, which could include income from collaborations, strategic partnerships or marketing, distribution, licensing or other strategic arrangements with third parties. However, there can be no assurance that any additional financing or strategic transactions will be available to us on acceptable terms, if at all. If events or circumstances occur such that we do not obtain additional funding, we may need to delay, reduce or eliminate our product development or future commercialization efforts, which could have a material adverse effect on our business, results of operations or financial condition. Further, if we raise funds through licensing or other commercial arrangements with third parties, we may be required to relinquish valuable rights to our technology, future revenue streams, research programs or drug candidates or may be required to grant licenses on terms that may not be favorable to us and/or may reduce the value of our common stock.

As of December 31, 2023, we had cash, cash equivalents and marketable securities of $125.2 million. Based on our current operating plan, we estimate that our existing cash, cash equivalents, and marketable securities as of the date of this prospectus, together with the estimated net proceeds from this offering, will be sufficient to fund our projected operations through at least .

Collaboration

In February 2023, we entered into the J&J License Agreement, pursuant to which we granted J&J an exclusive, worldwide license to develop, manufacture and commercialize PIPE-307 in all indications.

J&J is generally responsible for all development, manufacturing and commercialization activities for PIPE-307. Upon J&J conducting a first Phase 3 clinical trial for a product using PIPE-307, we have an opt-in right to fund a portion of all Phase 3 and subsequent development costs for PIPE-307. If we opt to fund such development costs, then the royalties we are eligible to receive will increase by one to two percentage points.

We are conducting, at our own expense, a Phase 2 clinical trial of PIPE-307 in patients with RRMS. J&J has the right to discontinue our clinical trial if it has good faith concerns that this trial presents safety risks or could have a material adverse effect on its development or commercialization of PIPE-307. In addition, J&J has the right, in its sole discretion, to further develop or to elect not to develop PIPE-307 for this indication.

The J&J License Agreement expires on a licensed product-by-product and country-by-country basis upon the last to occur of: (i) the expiration of the last-to-expire licensed patent claim covering the composition of matter of the licensed compound in such licensed product in such country; (ii) the expiration of exclusive marketing rights conferred by a regulatory authority or applicable law (other than patent exclusivity) for such licensed product in such country; and (iii) ten years after the first commercial sale of such licensed product in such country. Either party may terminate the J&J License

Agreement in the event of an uncured material breach by the other party or a bankruptcy or insolvency of the other party. J&J may terminate the J&J License Agreement without cause upon prior written notice to us. Upon any termination, all license rights granted to J&J terminate.

Financial Operations Overview

Revenue

We recognize license revenues as identified performance obligations are satisfied or other events occur, specifically related to our J&J License Agreement. Pursuant to the terms of the J&J License Agreement, we received an upfront payment of $50.0 million in May 2023. We are also eligible to receive approximately $1.0 billion in non-refundable, non-creditable milestone payments, pursuant to the terms of the J&J License Agreement. Additionally, we are eligible to receive tiered royalties in the low-double digit to high-teen percent range on net sales of products containing PIPE-307. We determined that the initial transaction price under the J&J License Agreement equals $50.0 million, consisting solely of the upfront, non-refundable payment of $50.0 million.

Operating Expenses

Research and Development

Research and development costs consist primarily of costs incurred for the unallocated internal research and development costs:

Direct costs include:

- employee-related expenses, including salaries, related benefits, travel that can be directly attributable to each research project;
- expenses incurred in connection with research, laboratory consumables and preclinical studies;
- expenses incurred in connection with conducting clinical trials, including investigator grants and site payments for time and pass-through expenses and expenses incurred under agreements with CROs, other vendors or central laboratories and service providers engaged to conduct our trials;
- the cost of consultants engaged in research and development related services;
- the cost to manufacture drug products for use in our preclinical studies and clinical trials; and
- costs related to regulatory compliance.

Unallocated internal research and development costs include:

- employee-related expenses, including salaries, related benefits, travel that cannot be directly attributable to a specific research project;
- stock-based compensation expenses for employees engaged in research and development functions; and
- facilities, depreciation and other related expenses.

We expense our research and development costs as they are incurred. We record advance payments for goods or services to be received in the future for use in research and development as prepaid expenses. We then expense the prepaid amounts as the related goods are delivered or the services are performed.

We track outsourced development costs, consultant costs and other external research and development costs such as third-party contract costs relating to manufacturing, clinical trial activities, translational medicine and toxicology activities to specific programs. We allocate employee related costs including salaries and related benefits based upon the level of effort for each specific project.

Certain employee activities that cannot be allocated to any one specific project or management related activities are considered indirect costs. The following tables summarize our research and development expenses for the years ended December 31, 2022 and 2023. The direct external development program expenses reflect external costs attributable to our clinical development and preclinical programs and personnel costs that can be directly attributed to a development program. The unallocated internal research and development costs include unallocated personnel costs, facility costs, stock-based compensation, laboratory consumables and discovery and research related activities.

	Years Ended December 31,	
	2022	2023
	(in thousands)	(in thousands)
Direct external development program expense		
PIPE-791	$ 4,928	$ 11,181
PIPE-307	5,633	4,565
Others	2,548	4,198
Unallocated internal research and development costs		
Personnel related	1,092	1,583
Stock-based compensation	887	1,061
Facilities costs	805	936
Others	1,001	4,078
Total research and development costs	$ 16,894	$ 27,603

Research and development activities are central to our business model. There are numerous factors associated with the successful commercialization of any of our drug candidates, including future clinical trial design and various regulatory requirements, many of which we cannot determine with accuracy at this time based on our stage of development. In addition, future regulatory factors beyond our control may impact our clinical development programs. Drug candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. At this time, we cannot reasonably estimate or know the nature, timing and costs of the efforts that will be necessary to complete the preclinical and clinical development of any of our drug candidates and our costs may increase if we exercise our opt-in right to fund a portion of all Phase 3 and subsequent development costs for PIPE-307 pursuant to the J&J License Agreement. However, we expect that our research and development expenses will increase substantially in connection with our planned preclinical and clinical development activities in the near term and for the foreseeable future.

The successful development of our drug candidates is highly uncertain. This is due to numerous risks and uncertainties, including the following:

- successful completion of preclinical studies and clinical trials;
- delays in regulators or institutional review boards (IRBs) authorizing us or our investigators to commence or continue our clinical trials;
- our ability to negotiate agreements with clinical trial sites or CROs;
- the number of clinical sites included in our clinical trials;
- raising additional funds necessary to complete clinical development of our drug candidates;
- obtaining and maintaining patent, trade secret and other intellectual property protection and regulatory exclusivity for our drug candidates;
- establishing and qualifying manufacturing capabilities for clinical supplies of our drug candidates, whether directly or through qualified third party manufacturers;

- our ability to receive necessary regulatory approvals from the FDA and comparable governmental bodies outside the United States;
- our decision to elect to fund a portion of Phase 3 and subsequent development costs for PIPE-307;
- coverage for our products by governmental and third party payors;
- protecting and enforcing our rights in our intellectual property portfolio;
- our ability to successfully compete with our competitors and their product offerings; and
- maintaining a continued acceptable safety profile of the products following approval.

A change in the outcome of any of these variables with respect to the development of our drug candidates may significantly impact the costs and timing associated with the development of our drug candidates. We may never succeed in obtaining regulatory approval for any of our drug candidates or successfully commercialize our products, even if approved.

General and Administrative

General and administrative expenses consist primarily of salaries and employee-related costs, including stock-based compensation, for personnel in executive, finance and other administrative functions. Other significant costs include legal fees relating to intellectual property, patent applications, and corporate matters, professional fees for accounting and consulting services and facility-related costs.

We expect our general and administrative expenses will increase for the foreseeable future to support our increased research and development activities, the growth of our business operations and headcount and to reflect increased operating expenses as we begin operating as a public company. These increased costs will likely include increased expenses related to audit, legal, regulatory services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums and investor relations costs.

Other Income (Expense)

Change in Fair Value of Investor Rights and Obligations Liability

In November 2019, in connection with the closing of our Series B convertible preferred stock financing, we entered into an agreement (the Series B Investor Agreement) with one of the investors (the Series B Investor) who participated in such financing that contains future investor rights and obligations that we are required to account for as a liability and remeasure the liability to fair value at each reporting date, with any change in the fair value of the liability reported as a component of other income (expense). We entered into the Series B Investor Agreement in exchange for a premium paid by the Series B Investor for the shares of Series B convertible preferred stock it purchased. The Series B Investor Agreement requires us to license the intellectual property we own or control in a defined geography to the Series B Investor unless we either spend $2.0 million in support of the development of our business in such defined geography or the Series B Investor recognizes a rate of return of at least 15% per annum on the cash it invested in our Series B convertible preferred stock (the Qualified Return). The Series B Investor Agreement provides us with certain rights to repurchase the Series B Investor’s stock or to pay the Series B Investor an amount that would result in the Series B Investor achieving a Qualified Return.

The Series B Investor Agreement was amended and replaced in its entirety on November 30, 2022 (the Amended Series B Investor Agreement). The Amended Series B Investor Agreement

removed the intellectual property license requirement noted above provided that if the Company completes certain liquidation or merger and acquisition events (each a Transfer Event) prior to June 30, 2024, the Series B Investor shall be entitled, automatically to receive the greater of (1) the amount payable to the investor in the Transfer Event as a result of its ownership of the shares held by the investor on the effective date of the Transfer Event or (2) an amount equal to a rate of return of 15% per annum for the shares held by the investor on the effective date of the Transfer Event with respect to the investor's initial cash investment in such shares (the Transfer Event Right). If no Transfer Event takes place by June 30, 2024, the Series B investor has a right to sell shares to Company at a 15% rate of return (the Put Option Right). The Amended Series B Investor Agreement also provides that if a certain limited partner of the Series B Investor is no longer a limited partner prior to June 30, 2024 then the Transfer Event Right and the Put Option Right noted above will automatically terminate. The Company was informed on May 17, 2023 that the certain limited partner of the Series B Investor was no longer a limited partner of the Series B Investor and therefore the Transfer Event Right and the Put Option Right have terminated. Following the termination of the Transfer Event Right and the Put Option Right due to the change in the limited partner's status in May 2023, the Company settled the investor rights and obligations liability resulting in a gain of $2.9 million for the year ended December 31, 2023.

Interest Income

Interest income consists of interest earned on our cash, cash equivalents and marketable securities.

Interest Expense

Interest expense consists of (i) interest on our outstanding Loan Agreement with First Citizens Bank at a floating per annum interest rate, which was 7.75% as of December 31, 2022, and (ii) amortization of our debt discount associated with our loan and security agreement recorded in connection with the fair value of the warrant issued to First Citizens, the debt issuance costs incurred and the obligation to make a final payment fee. We repaid all of the outstanding principal on the First Citizens loan as of June 2023.

Income Taxes

We are subject to corporate U.S. federal and state income taxation. As of December 31, 2022 and 2023, we had federal net operating loss carryforwards of $72.9 million and $37.3 million, respectively, and state net operating loss carryforwards of $81.1 million and $81.4 million, respectively. As a result of the TCJA, for U.S. income tax purposes, net operating losses generated prior to January 1, 2018 can be carried forward for up to 20 years, while net operating losses generated on or after January 1, 2018 can be carried forward indefinitely, but are limited to 80% utilization against future taxable income each year. Utilization of our net operating loss carryforwards may be subject to a substantial annual limitation due to the ownership change limitations provided by the Code and similar state provisions. This annual limitation may result in the expiration of our net operating losses and credits before utilization.

We estimate our income tax provision, including deferred tax assets and liabilities, based on management's judgment. We record a valuation allowance to reduce our deferred tax assets to the amounts that are more likely than not to be realized. We consider future taxable income, ongoing tax planning strategies and our historical financial performance in assessing the need for a valuation allowance. If we expect to realize deferred tax assets for which we have previously recorded a valuation allowance, we will reduce the valuation allowance in the period in which such determination is first made.

We record liabilities related to uncertain tax positions in accordance with the guidance that clarifies the accounting for uncertainty in income taxes recognized in an enterprise's financial statements by prescribing a minimum recognition threshold and measurement attribute for purposes of financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return.

As of December 31, 2022 and 2023, we had gross unrecognized tax benefits of $2.7 million and $2.6 million, respectively, all of which would affect our income tax expense if recognized, before consideration of our valuation allowance.

Results of Operations

Comparison of the Years Ended December 31, 2022 and 2023

The following table summarizes our results of operations (in thousands) for the periods indicated:

	Years Ended December 31,		
	2022	2023	Change
License revenue	$ —	$ 50,000	$ 50,000
Operating expenses:			
Research and development	16,894	27,603	10,709
General and administrative	5,826	6,320	494
Total operating expenses	22,720	33,923	11,203
Income (loss) from operations	(22,720)	16,077	38,797
Other income (expense)			
Interest income	761	4,606	3,845
Interest expense	(388)	(208)	180
Change in fair value of preferred stock warrant liability	3	5	2
Change in fair value of investor rights and obligations liability	(1,817)	2,867	4,684
Other expense	(92)	(177)	(85)
Total other income (expense)	(1,533)	7,093	8,626
Income (loss) before income	(24,253)	23,170	47,423
Provision for income taxes	—	450	450
Net income (loss)	$(24,253)	$ 22,720	$ 46,973

License revenue. License revenues were $50.0 million for the year ended December 31, 2023. The revenue for the year ended December 31, 2023 is solely attributable to the upfront payment from the J&J License Agreement.

Research and development expenses. Research and development expenses were $16.9 million and $27.6 million for the years ended December 31, 2022 and 2023, respectively. The increase of $10.7 million was primarily due to a $4.6 million increase in contract research organization costs primarily for the Phase 1 healthy volunteer clinical trial for PIPE-791 and Phase 2 clinical trial for PIPE-307, $3.1 million of expenses paid to our consultants as a result of the receipt of the up-front payment from the J&J License Agreement, and a $2.9 million increase in manufacturing expense for PIPE-791.

General and administrative expenses. General and administrative expenses were $5.8 million and $6.3 million for the years ended December 31, 2022 and 2023, respectively. The increase of $0.5 million was primarily due to an increase in personnel-related expenses.

Interest income. Interest income was $0.8 million and $4.6 million for the years ended December 31, 2022 and 2023, respectively. The increase was due to a significant increase in funds invested in marketable securities in 2023 due to net proceeds from the extension of our Series C

convertible preferred stock financing of $60.1 million and the $50.0 million upfront payment from the J&J License Agreement. We also had an increase in yields on our marketable securities as yields increased through 2022 and 2023.

Change in fair value of investor rights and obligations liability. We recognized a $2.9 million gain related to the decrease in fair value of our investor rights and obligations liability for the year ended December 31, 2023 as a result of reducing the Series B convertible preferred stock premium liability to $0.0 discussed above. This was the result of the termination of the Transfer Event Right and the Put Option Right due to the change in a specified limited partner's status in May 2023.

Provision for income taxes. For the year ended December 31, 2023, due to statutory limitations on our ability to utilize research and development credits and net operating losses to offset year to date taxable income, we recorded tax expense of $0.5 million, on pretax income of $23.2 million.

Liquidity and Capital Resources

Sources of Liquidity

We have incurred net losses and negative cash flows from operations in nearly every reporting period since our inception and anticipate that we will continue to incur net losses for the foreseeable future. We expect to incur substantial expenditures as we advance our drug candidates through clinical development, undergo the regulatory approval process, engage in other research and development activities to expand our pipeline of drug candidates, expand our operations and headcount, maintain and expand our intellectual property portfolio and, if we obtain approval for one or more of our drug candidates, launch commercial activities. Specifically, in the near term we expect to incur substantial expenses relating to completing our clinical trials and our other product development activities. Furthermore, upon the completion of this offering, we expect to incur additional costs associated with operating as a public company, including significant legal, accounting, investor relations, director and officer insurance and other expenses that we did not incur as a private company.

Through December 31, 2023, we have funded our operations primarily through the issuance of convertible promissory notes, the private placements of our convertible preferred stock, the J&J License Agreement, and our term loan facility with First Citizens. Through December 31, 2023, we have raised gross proceeds of approximately $194 million from the issuance of our convertible preferred stock and promissory notes and have received an upfront payment from the J&J License Agreement of $50.0 million. Our cash equivalents are held in money market funds and marketable securities. At December 31, 2023, we had an accumulated deficit of $75.1 million.

From February 2021 through December 31, 2023, we issued an aggregate of 52,333,442 shares of Series C convertible preferred stock, resulting in total net proceeds of approximately $140.3 million.

In September 2020, we entered into the Loan Agreement with First Citizens as administrative and collateral agent, and lender. The Loan Agreement had a floating interest rate of the higher of the Wall Street Journal Prime rate plus 0.25%, or 3.50%. The Loan Agreement was payable in equal monthly installments of principal, plus accrued and unpaid interest through the maturity date of June 1, 2024. In addition, we were obligated to pay a final payment fee of 6.0% of the original principal amount of the loan facility. We repaid all of the outstanding principal, the final payment fee and all outstanding and accrued interest on the First Citizens loan as of June 2023.

In connection with the Loan Agreement, we issued First Citizens a warrant to purchase 88,235 shares of Series B convertible preferred stock at an exercise price of $1.70 per share. The warrant expires ten years from the date of issuance.

As we continue to pursue our business plan, we expect to finance our operations through both public and private sales of equity, debt financings or other commercial arrangements, which could include milestone payments from collaborations, strategic partnerships or marketing, distribution, licensing or other strategic arrangements with third parties. However, there can be no assurance that any additional financing or strategic transactions will be available to us on acceptable terms, if at all. If events or circumstances occur such that we do not obtain additional funding, we may need to delay, reduce or eliminate our product development or future commercialization efforts, which could have a material adverse effect on our business, results of operations or financial condition. Further, if we raise funds through licensing or other commercial arrangements with third parties, we may be required to relinquish valuable rights to our technology, future revenue streams, research programs or drug candidates or may be required to grant licenses on terms that may not be favorable to us and/or may reduce the value of our common stock.

Cash Flows

The following table sets forth a summary of our cash flows for the period indicated (in thousands):

	Years Ended December 31,	
	2022	2023
Net cash provided by (used in) operating activities	$(20,121)	$ 19,349
Net cash provided by (used in) investing activities	22,299	(65,568)
Net cash provided by (used in) financing activities	(1,239)	56,176
Net increase in cash and cash equivalents	$ 939	$ 9,957

Operating Activities

Net cash provided by (used in) operating activities was $(20.1) million and $19.3 million for the years ended December 31, 2022 and 2023, respectively. The net cash used in operating activities for the year ended December 31, 2022 was primarily due to our net loss of $24.3 million, offset by $5.4 million of non-cash charges such as stock-based compensation, depreciation and amortization, amortization of premiums/discounts on marketable securities, the change in fair value of our investor rights and obligations liability, amortization of debt discount, amortization of right-of-use assets and a $1.2 million change in operating assets and liabilities.

The net cash provided by operating activities for the year ended December 31, 2023 was primarily due to our net income of $22.7 million from the revenue recognized in relation to the $50 million up-front payment from the J&J License Agreement, offset by $2.3 million of non-cash charges such as stock-based compensation, depreciation and amortization, amortization of premiums/discounts on marketable securities, the change in fair value of our investor rights and obligations liability, amortization of debt discount, amortization of right-of-use assets and a $1.1 million change in operating assets and liabilities.

Investing Activities

Net cash provided by investing activities was $22.3 million for the year ended December 31, 2022, which primarily consisted of $87.1 million of proceeds from sales and maturities of marketable securities, partially offset by $64.8 million of purchases of marketable securities. Net cash used in investing activities was $65.6 million for the year ended December 31, 2023, which primarily consisted of $141.9 million of purchases of marketable securities and $0.4 million of purchases of property and equipment, partially offset by $76.7 million of proceeds from sales and maturities of marketable securities.

Financing Activities

Net cash used in financing activities was $1.2 million for the year ended December 31, 2022, primarily due to principal payments on the term loan of $1.2 million. Net cash provided by financing activities was $56.2 million for the year ended December 31, 2022, primarily due to net proceeds from the issuance of Series C convertible preferred stock of $60.1 million and proceeds from the exercise of stock options of $0.2 million, partially offset by principal payments on the term loan of $3.8 million and payments of deferred offering costs of $0.3 million.

Funding Requirements

We expect our operating expenses to significantly increase as we continue to develop and seek regulatory approvals for our drug candidates, engage in other research and development activities to expand our pipeline of drug candidates, expand our operations and headcount, maintain and expand our intellectual property portfolio, and, if we obtain approval for one or more of our drug candidates, launch commercial activities. Based on our current operating plan, we estimate that our existing cash, cash equivalents, and marketable securities as of the date of this prospectus, together with the estimated net proceeds from this offering, will be sufficient to fund our projected operations through at least . However, our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and our actual results could vary materially. We have based this estimate on assumptions that may prove to be wrong, and we could deplete our capital resources sooner than we expect. Additionally, the process of testing our drug candidates in clinical trials is costly, and the timing of progress and expenses in these trials is uncertain.

Our future capital requirements will depend on many factors, including:

- the type, number, scope, progress, expansions, results, costs and timing of, our clinical trials and preclinical studies for our drug candidates or other potential drug candidates or indications which we are pursuing or may choose to pursue in the future;
- the outcome, timing and costs of regulatory review of our drug candidates;
- the costs and timing of manufacturing for our drug candidates;
- our efforts to enhance our operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal controls over financial reporting;
- the costs associated with hiring additional personnel and consultants as our preclinical and clinical activities expand;
- the costs and timing of establishing or securing manufacturing facilities for our drug candidates;
- the costs and timing of establishing sales and marketing capabilities if any of our drug candidates are approved;
- our ability to establish and maintain strategic collaborations, licensing or other arrangements;
- the financial terms of any such agreements that we may enter into;

- our decision to elect to fund a portion of Phase 3 and subsequent development costs for PIPE-307
- the costs of obtaining, maintaining and enforcing our patent and other intellectual property rights; and
- costs associated with any drug candidates, products or technologies that we may in-license or acquire.

Until such time as we can generate significant revenue from sales of our drug candidates, if ever, we expect to finance our cash needs through public or private equity or debt financings or other commercial arrangements, including collaborations, strategic partnerships or marketing, distribution, licensing or other strategic arrangements with third parties. We may be unable to raise additional funds or enter into such commercial arrangements when needed, on favorable terms, or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be or could be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing and equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise funds through collaborations, or other similar arrangements with third parties, we may be required to relinquish valuable rights to our drug candidates, future revenue streams or research programs or may be required to grant licenses on terms that may not be favorable to us and may reduce the value of our common stock. If we are unable to raise additional funds through equity or debt financings or through commercial arrangements when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market our drug candidates even if we would otherwise prefer to develop and market such drug candidates ourselves.

Contractual Obligations and Commitments

Our contractual obligations and commitments relate to our operating leases that relate primarily to our leases of office and laboratory space in San Diego, California. Our total contractual commitments for our lease agreements amount to approximately $7.8 million as of December 31, 2023.

We enter into contracts in the normal course of business for contract research services, contract manufacturing services, professional services and other services and products for operating purposes. These contracts generally provide for termination after a notice period, and, therefore, are cancelable contracts and not included in the table above.

Off-Balance Sheet Arrangements

During the periods presented, we did not have, nor do we currently have, any off-balance sheet arrangements as defined under the rules and regulations of the SEC.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of our assets, liabilities, revenue, and expenses and the disclosure of contingent assets and liabilities in our financial statements and accompanying notes. On an ongoing basis, we

evaluate our estimates and judgments, including those related to accrued expenses, investor rights and obligations liability, stock-based compensation, and common stock valuation. We base our estimates and assumptions on historical experience, known trends and events, and various other factors that we believe are reasonable and appropriate under the circumstances, the results of which form the basis for making judgments about the carrying values of our assets and liabilities that are not readily apparent from other sources. Our actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our audited financial statements included elsewhere in this prospectus, we believe the following accounting policies and estimates to be the most critical to the preparation of our financial statements.

Revenue

Under Accounting Standards Update — Revenue from Contracts with Customers (Topic 606), we recognize revenue when our customer obtains control of promised goods or services, in an amount that reflects the consideration which we expect to receive in exchange for those goods or services. To determine the appropriate amount of revenue to be recognized for arrangements determined to be within the scope of Topic 606, we perform the following five steps: (i) identification of the contract(s) with the customer, (ii) identification of the promised goods or services in the contract and determination of whether the promised goods or services are performance obligations, (iii) measurement of the transaction price, (iv) allocation of the transaction price to the performance obligations, and (v) recognition of revenue when (or as) we satisfy each performance obligation. We only apply the five-step model to contracts when it is probable that we will collect the consideration we are entitled to in exchange for the goods or services we transfer to our customer.

A contract modification is a change in the scope or price (or both) of a contract that is approved by the parties to the contract. A contract modification exists when the rights and obligations that are created or changed by a modification are enforceable. We account for a contract modification as a separate contract when the scope of the contract increases, and the price of the contract increases by an amount that reflects the standalone selling prices of the additional promised goods or services that are distinct. If a contract modification is not accounted for as a separate contract, our accounting of the contract modification depends on whether the remaining goods or services are distinct from those already provided on or before the date of the contract modification. If the remaining goods or services are distinct from those already provided, we account for the contract modification as a termination of the existing contract and creation of a new contract. The amount of the consideration to be allocated to the remaining performance obligations consists of the consideration promised by the customer that was included in the estimate of the transaction price for the existing contract and that had not been recognized as revenues and the consideration promised as part of the contract modification. If the remaining goods or services are not distinct from those already provided, we account for the contract modification as if it were part of the existing contract and accounts for the effect that the contract modification has on the transaction price, and on the measure of progress toward complete satisfaction of the performance obligation, as a cumulative catch-up adjustment at the date of the contract modification.

Identification of the Contracts with the Customers

We evaluate every contract to determine whether it in its entirety or in part represent a contract with a customer, or a collaboration agreement and, based on this determination, apply appropriate accounting guidance.

We account for a contract with a customer that is within the scope of Topic 606 when all of the following criteria are met: (i) the arrangement has been approved by the parties and the parties are

committed to perform their respective obligations, (ii) each party's rights regarding the goods or services to be transferred can be identified, (iii) the payment terms for the goods or services to be transferred can be identified, (iv) the arrangement has commercial substance and (v) collection of substantially all of the consideration to which we will be entitled in exchange for the goods or services that will be transferred to the customer is probable.

Identification of the Performance Obligations

The promised goods or services in our collaboration and option arrangements consist of research and development services. The arrangements also have options for additional items (i.e., license rights). Options are considered to be marketing offers and are to be accounted for as separate contracts when the customer elects such options, unless we determine the option provides a material right which would not be provided without entering into the contract. The determination as to whether such options are material rights requires significant management judgment, and management considers factors such as other similar arrangements, market data and the terms of the contractual arrangement to make such conclusion. Performance obligations are promised goods or services in a contract to transfer a distinct good or service to the customer. Promised goods or services are considered distinct when: (i) the customer can benefit from the good or service on its own or together with other readily available resources and (ii) the promised good or service is separately identifiable from other promises in the contract. In assessing whether promised goods or services are distinct, we consider factors such as the stage of development of the underlying intellectual property, the capabilities of our customer to develop the intellectual property on their own and whether the required expertise is readily available.

Determination of the Transaction Price

We estimate the transaction price based on the amount of consideration we expect to receive for transferring the promised goods or services in the contract. The consideration may include both fixed consideration and variable consideration. At the inception of each arrangement that includes variable consideration, we evaluate the amount of the potential payments and the likelihood that the payments will be received. We utilize either the most likely amount method or expected value method to estimate the transaction price based on which method better predicts the amount of consideration expected to be received. If it is probable that a significant revenue reversal would not occur, the variable consideration is included in the transaction price.

All contingent future payments, which include research, development, regulatory, and sales-based royalty payments, have not been considered in the initial analysis, as they are contingent upon option(s) being exercised or are subject to significant risk of achievement.

Allocation of Transaction Price

We allocate the transaction price based on the estimated standalone selling price. We must develop assumptions that require judgment to determine the standalone selling price for each performance obligation identified in the contract. We utilize key assumptions to determine the standalone selling price, which may include other comparable transactions, pricing considered in negotiating the transaction, and the estimated costs. Certain variable consideration is allocated specifically to one or more performance obligations in a contract when the terms of the variable consideration relate to the satisfaction of the performance obligation and the resulting amounts allocated to each performance obligation are consistent with the amounts we would expect to receive for satisfying each performance obligation.

Recognition of Revenue

We evaluated the J&J License Agreement and concluded that it was a license of functional intellectual property, and that the identified performance obligations were satisfied upon the transfer of the license, know-how, existing inventory and manufacturing technology. Accordingly, the $50.0 million upfront payment was recognized in May 2023 upon satisfaction of the performance obligations. The remaining consideration, consisting of future contingent milestone-based payments and royalties on net sales, is included in the transaction price when there is a basis to reasonably estimate the amount of the payment and the amount is not probable of a significant reversal of the revenue in future periods. Because of the risk that products in development with the license will not reach development-based milestones or receive regulatory approval, contingent milestone-based payments are generally included in the transaction price upon the achievement of such milestone, and royalties are included in the transaction price upon the underlying sale occurring.

Research and Development Expenses and Accruals

We are required to estimate our expenses resulting from obligations under contracts with vendors, consultants and contract research organizations, in connection with conducting research and development activities. The financial terms of these contracts are subject to negotiations, which vary from contract to contract and may result in payment flows that do not match the periods over which materials or services are provided under such contracts. We reflect research and development expenses in our financial statements by matching those expenses with the period in which services and efforts are expended. We account for these expenses according to the progress of the associated preclinical study or clinical trial as measured by the timing of various aspects of the trial or related activities. We determine accrual estimates through review of the underlying contracts along with preparation of financial models taking into account discussions with research and other key personnel as to the progress of studies, or other services being conducted. During the course of a trial, we adjust our rate of expense recognition if actual results differ from our estimates.

There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid expense accordingly. Advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made. Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, it could result in us reporting amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates of such expenses and the amounts actually incurred.

Investor Rights and Obligations Liability

In November 2019, in connection with the closing of our Series B convertible preferred stock financing, we entered into the Series B Investor Agreement with the Series B Investor, who was one of the investors participating in such financing. The Series B Investor Agreement provided the Series B Investor with future investor rights and obligations in exchange for paying a premium for the shares of Series B convertible preferred stock it acquired. We evaluated these additional rights and obligations and concluded that they met the definition of a derivative and therefore we recorded these rights and obligations at their calculated fair value at issuance.

We initially assessed the fair value of these rights and obligations as the additional premium paid by the Series B Investor to acquire these rights and obligations. We are required to revalue the investor rights and obligations liability at each reporting period, with changes in the fair value of the liability recorded as change in fair value of investor rights and obligations in our statements of operations and comprehensive loss. We use a Monte Carlo simulation model to determine the fair value.

The Monte Carlo simulation model uses inputs which are highly subjective assumptions and generally require significant management judgment. These assumptions include:

- *Equity Value*—See the subsection titled "—Common Stock Valuation" below.
- *Expected Volatility*—We derive the expected volatility of our Series B convertible preferred stock and our common stock from the average historical volatilities of comparable publicly traded companies within our peer group that were deemed to be representative of future stock price trends as our capital stock will not be publicly traded until the offering contemplated by this offering. We will continue to apply this process after the completion of this offering until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.
- *Years Remaining Term*—The years remaining term represents the period that the liability is expected to be outstanding. The years remaining term is determined using a weighted probability of each exit scenario.
- *Risk-Free Interest Rate*—The risk-free interest rate is based on the U.S. Treasury zero-coupon issues in effect at the time of grant for periods corresponding with the expected term of the liability.

See Note 4 to our audited financial statements included elsewhere in this prospectus for more information concerning certain of the specific assumptions we used in applying the Monte Carlo simulation model to determine the estimated fair value of this investor rights and obligations liability. Certain assumptions involve inherent uncertainties and the application of significant management judgment.

We recorded a change in fair value of the investor rights and obligations liability of $2.9 million for the year ended December 31, 2023. As of December 31, 2022 and 2023, the investor rights and obligations liability was $2.9 million and $0.0 million, respectively.

Stock-Based Compensation Expense

Stock-based compensation expense represents the cost of the grant date fair value of employee, officer, director and non-employee stock options. We estimate the fair value of stock options on the date of grant using the Black-Scholes option pricing model and recognize the expense over the requisite service period of the awards, which is generally the vesting period, on a straight-line basis. We account for forfeitures when they occur and reverse any compensation cost previously recognized for awards for which the requisite service has not been completed, in the period that the award is forfeited.

The Black-Scholes option pricing model uses inputs which are highly subjective assumptions and generally require significant management judgment. These assumptions include:

- *Fair Value of Common Stock*—See the subsection titled "—Common Stock Valuation" below.
- *Expected Term*—The expected term represents the period that the options granted are expected to be outstanding. The expected term of stock options issued is determined using the simplified method (based on the average of the vesting term and the original contractual term) as we have concluded that our stock option exercise history does not provide a reasonable basis upon which to estimate the expected term.

- *Expected Volatility*—We derive the expected volatility of our common stock from the average historical volatilities of comparable publicly traded companies within our peer group that were deemed to be representative of future stock price trends as our common stock has not been publicly traded until the offering contemplated by this offering. We will continue to apply this process after the completion of this offering until a sufficient amount of historical information regarding the volatility of our own stock price becomes available.
- *Risk-Free Interest Rate*—The risk-free interest rate is based on the U.S. Treasury zero-coupon issues in effect at the time of grant for periods corresponding with the expected term of the options.
- *Expected Dividend Yield*—We have never paid dividends on our common stock and do not anticipate paying any dividends in the foreseeable future. Therefore, we used an expected dividend yield of zero.

See Note 8 to our audited financial statements included elsewhere in this prospectus for more information concerning certain of the specific assumptions we used in applying the Black-Scholes option pricing model to determine the estimated fair value of our stock options. Certain of such assumptions involve inherent uncertainties and the application of significant judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our stock-based compensation could be materially different.

We recorded stock-based compensation expense of $2.2 million for the year ended December 31, 2023, compared to $1.9 million for the year ended December 31, 2022. As of December 31, 2022 and December 31, 2023, there was approximately $4.0 million and $6.6 million, respectively, of total unrecognized stock-based compensation expense related to nonvested stock-based compensation arrangements granted under the 2012 Plan, is expected to be recognized over a weighted-average period of approximately 0.9 and 1.3 years, respectively.

The intrinsic value of all outstanding options as of December 31, 2023 was $ million based on the assumed initial public offering price of $ per share (the midpoint of the price range set forth on the cover page of this prospectus), of which approximately $ million was related to vested options and approximately $ million was related to unvested options.

Common Stock Valuation

We are required to estimate the fair value of the common stock underlying our stock-based awards when performing fair value calculations using the Black-Scholes option pricing model. Because our common stock has not been publicly traded until the completion of the offering contemplated by this prospectus, the fair value of the common stock underlying our stock-based awards has been determined on each grant date by our board of directors, with input from management, considering our most recently available third-party valuation of common shares. All options to purchase shares of our common stock are intended to be granted with an exercise price per share no less than the fair value per share of our common stock underlying those options on the date of grant, based on the information known to us on the date of grant.

Our determination of the value of our common stock was performed using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants (AICPA), Audit and Accounting Practice Aid Series: Valuation of Privately Held Company Equity Securities Issued as Compensation (AICPA Practice Aid). In addition, our board of directors considered various objective and subjective factors to determine the fair value of our common stock, including:

- valuations of our common stock performed by independent third-party valuation specialists;

- the anticipated capital structure that will directly impact the value of the currently outstanding securities;
- our results of operations and financial position;
- the status of our research and development efforts;
- the regulatory and clinical status of our drug candidates;
- the composition of, and changes to, our management team and board of directors;
- the lack of liquidity of our common stock as a private company;
- our stage of development and business strategy and the material risks related to our business and industry;
- external market conditions affecting the life sciences and biotechnology industry sectors;
- U.S. and global economic conditions;
- the likelihood of achieving a liquidity event for the holders of our common stock, such as an initial public offering, or a sale of our company, given prevailing market conditions; and
- the market value and volatility of comparable companies.

The AICPA Practice Aid prescribes several valuation approaches for setting the value of an enterprise, such as the cost, income and market approaches, and various methodologies for allocating the value of an enterprise to its common stock. The cost approach establishes the value of an enterprise based on the cost of reproducing or replacing the property less depreciation and functional or economic obsolescence, if present. The income approach establishes the value of an enterprise based on the present value of future cash flows that are reasonably reflective of our future operations, discounting to the present value with an appropriate risk adjusted discount rate or capitalization rate. The market approach is based on the assumption that the value of an asset is equal to the value of a substitute asset with the same characteristics.

In accordance with the AICPA Practice Aid, we considered the various methods for allocating the enterprise value to determine the fair value of our common stock at the applicable valuation date. Under the option pricing method (OPM), shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The value of the common stock is inferred by analyzing these options. The probability weighted expected return method (PWERM) is a scenario-based analysis that estimates the value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.

Based on our early stage of development and other relevant factors, we determined that the hybrid method between the PWERM and OPM was the most appropriate method for allocating our enterprise value to determine the estimated fair value of our common stock for valuations performed prior to December 31, 2023. In determining the estimated fair value of our common stock, our board of directors also considered the fact that our stockholders could not freely trade our common stock in the public markets. Accordingly, we applied discounts to reflect the lack of marketability of our common stock based on the weighted-average expected time to liquidity.

Recently Issued Accounting Pronouncements

See Note 2 to our financial statements included elsewhere in this prospectus for recently issued accounting pronouncements.

Qualitative and Quantitative Disclosures about Market Risk

Interest Rate Risk

As of December 31, 2023, our cash equivalents consisted of interest-bearing money market accounts and marketable securities. Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of U.S. interest rates. Given the materiality of our investments, a hypothetical 100 basis point increase or decrease in interest rates during any of the periods presented would have resulted in an impact of $1.2 million on our financial results.

Foreign Currency Exchange Risk

We are exposed to market risk related to changes in foreign currency exchange rates. We contract with vendors that are located outside the United States and certain invoices are denominated in foreign currencies. We are subject to fluctuations in foreign currency rates in connection with such arrangements. To date, foreign currency transaction gains and losses have not been material to our financial statements, and we have not had a formal hedging program with respect to foreign currency. We believe a hypothetical 100 basis point increase or decrease in exchange rates during any of the periods presented would not have a material effect on our financial statements included elsewhere in this prospectus.

Effects of Inflation

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We believe that inflation has not had a material effect on our financial statements included elsewhere in this prospectus.

JOBS Act

The JOBS Act permits an “emerging growth company” such as us to take advantage of an extended transition period to comply with new or revised accounting standards. This provision allows an emerging growth company to delay the adoption of accounting standards that have different effective dates for public and private companies until those standards would otherwise apply to private companies. We have elected to use this extended transition period under the JOBS Act until the earlier of the date we (i) are no longer an emerging growth company or (ii) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

We could be an emerging growth company until the earliest to occur: (i) the last day of the fiscal year in which we have more than $1.235 billion in annual gross revenue; (ii) the date we qualify as a “large accelerated filers” as defined in Rule 12b-2 under the Exchange Act, with at least $700 million of equity securities held by non-affiliates; (iii) the issuance, in any three-year period, by us of more than $1.0 billion in non-convertible debt securities; or (iv) the last day of the fiscal year ending after the fifth anniversary of this offering.

Even after we no longer qualify as an emerging growth company, we may continue to qualify as a “smaller reporting company,” which would allow us to take advantage of many of the same exemptions from disclosure requirements including reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements, if either (i) the market value of our stock held by non-affiliates is less than $250 million or (ii) our annual revenue is less than $100 million during the most recently completed fiscal year and the market value of our stock held by non-affiliates is less than $700 million.

BUSINESS

Overview

We are a clinical stage biopharmaceutical company focused on discovering and developing novel, oral small molecule therapies for NI&I indications with high unmet need. We target biological pathways associated with specific clinical impairments that we believe, once modulated, will demonstrably alter the course of disease.

We have focused our efforts on developing selective compounds targeting challenging molecular pathways, and through these efforts, have built a portfolio of small molecule drug candidates. Our two clinical stage, internally-discovered drug candidates, PIPE-791 and PIPE-307, are each initially being developed in at least two distinct and separate indications that we believe will have broad applicability across multiple additional NI&I indications.

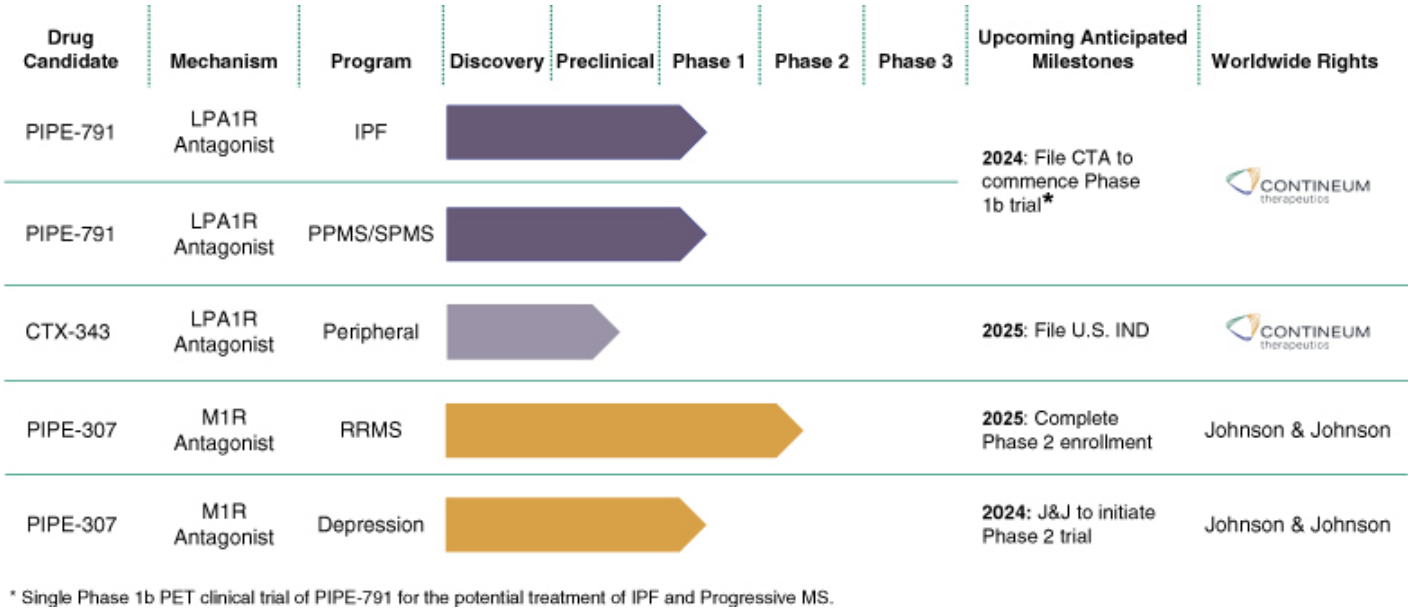
Our wholly-owned lead asset, PIPE-791, is a novel, brain penetrant, small molecule inhibitor of the LPA1R in development for IPF and Progressive MS. LPA1R antagonism is a clinically validated mechanism, and we believe that our preclinical studies and Phase 1 healthy volunteer data support the continued development of PIPE-791 for both IPF and Progressive MS. Specifically, based on its high bioavailability, low plasma protein binding, and long receptor residence time in our preclinical studies compared to the preclinical data of other LPA1R antagonists that we know are currently in development, we also believe PIPE-791 has the potential to be a differentiated LPA1R therapy. We completed a Phase 1 clinical trial of PIPE-791 in healthy volunteers in support of clinical development in both IPF and Progressive MS. We plan to submit a CTA to the MHRA to commence a Phase 1b open-label trial to measure the relationship of PK to lung and brain receptor occupancy by PET imaging in 2024. This Phase 1b trial will inform dose selection for our planned future Phase 2 trials of PIPE-791 in IPF and Progressive MS.

Our second drug candidate, PIPE-307, is a novel, small molecule selective inhibitor of the muscarinic type 1 M1R, in development for depression and RRMS. We have completed two Phase 1 trials of PIPE-307 in healthy volunteers and have initiated a Phase 2 trial of PIPE-307 for the potential treatment of RRMS. To our knowledge, PIPE-307 is the most clinically advanced selective M1R antagonist in development. We are developing PIPE-307 in collaboration with J&J.

In addition, we are leveraging our drug discovery capabilities synergistically with our clinical portfolio. In January 2024, we nominated and commenced preclinical studies for CTX-343, a peripherally-restricted (unable to cross the BBB) LPA1R antagonist. In parallel, we are actively conducting preclinical and discovery-phase experiments targeting other NI&I indications where our internally-discovered molecules may have therapeutic potential.

Our Clinical Pipeline

We have assembled a portfolio of novel and proprietary small molecule programs that we believe can modulate innate pathways to restore function in NI&I indications, as outlined in the table below. We retain worldwide rights to our LPA1R programs and discovery portfolio, and we have partnered with J&J for the development and potential commercialization efforts of PIPE-307.



* Single Phase 1b PET clinical trial of PIPE-791 for the potential treatment of IPF and Progressive MS.

PIPE-791

Our lead asset, PIPE-791, is a novel, high affinity, brain penetrant, small molecule LPA1R antagonist. We are initially developing PIPE-791 for the treatment of IPF and Progressive MS, and in parallel we are exploring the potential clinical utility of PIPE-791 in additional disorders where the LPA1 pathway has been implicated. We completed a Phase 1 trial to evaluate the safety, tolerability, and PK of single and multiple doses of PIPE-791 in healthy volunteers in support of clinical development in both IPF and Progressive MS. We plan to submit a CTA to the MHRA to commence a Phase 1b open-label trial of PIPE-791 to measure the relationship of PK to lung and brain receptor occupancy by PET imaging in 2024. This Phase 1b trial will inform dose selection for planned future Phase 2 trials of PIPE-791 in IPF and Progressive MS.

PIPE-791 for the Potential Treatment of IPF

We are developing PIPE-791 for the potential treatment of IPF. IPF is a rare, chronic, ILD, characterized by progressive fibrosis (thickening and scarring) of the lung tissue, leading to severe loss of respiratory function. Although the disease course is variable, the prognosis for overall survival is worse than many forms of cancer, with approximately 60% to 80% of patients dying from respiratory failure within five years of diagnosis. There are approximately 130,000 patients with IPF in the United States and three million cases worldwide as of 2017. There are two FDA-approved therapies for IPF, pirfenidone (Esbriet, marketed by Genentech/Roche) and nintedanib (Ofev, marketed by Boehringer Ingelheim), but these drugs do not stop progression of IPF and have limitations related to side effects, tolerability and multi-daily dosing regimens. IPF therefore remains an area of high unmet medical need.

The LPA/LPA1R pathway is a key mediator of fibrosis. LPA is a bioactive lipid that is elevated in response to lung injury and activates LPA1R. Activation of LPA1R drives a number of cellular cascades, including fibroblast recruitment and vascular leakage, that lead to fibrosis. Inhibition of LPA1 can reduce

these detrimental processes and may be a beneficial treatment for IPF. We have demonstrated this by our evaluation of PIPE-791 to reduce fibrosis in response to injury in a key *in vivo* rodent model for IPF. In addition, this is supported by third-party LPA1R antagonist programs, which have demonstrated clinical proof-of-concept in multiple Phase 2 clinical trials in IPF patients. Based on the dosing profile from our preclinical studies and the PK data from our Phase 1 healthy volunteer trial, we believe PIPE-791, pending further clinical development and FDA approval, has the potential to treat IPF with once-daily dosing. In contrast, currently approved IPF therapies require multiple-daily dosing regimens.

PIPE-791 for the Potential Treatment of Progressive MS

MS is a chronic, immune-mediated disease of the CNS characterized by neuro-inflammation and demyelination. The three main clinical categories of MS include RRMS, SPMS, and PPMS. We are developing PIPE-791 for the potential treatment of the two later categories, SPMS and PPMS, which are collectively referred to as Progressive MS. The chronic demyelination (and failure of endogenous remyelination) and chronic neuroinflammation are prominent pathological features that heavily contribute to the neurodegeneration and clinical disability in patients with Progressive MS.

The three main clinical forms of MS have differences in prevalence and presentation. RRMS comprises 85% of newly diagnosed MS patients, and the clinical course is marked by relapses and remissions, defined as disease flare-ups followed by periods of partial recovery. Many RRMS patients eventually progress to worsening disease, and it is estimated that roughly 50% to 70% of diagnosed RRMS patients progress to SPMS within 10 to 15 years. PPMS is the other category that comprises Progressive MS, and it is estimated that approximately 15% of newly diagnosed MS patients fall into this clinical category which is marked by a steady course of clinical progression from the time of presentation. In 2020, the global prevalence of MS was estimated to be 2.8 million patients, and we believe that more than 750,000 of this global population have Progressive MS (i.e., the collective population of SPMS and PPMS patients). Although substantial progress has been made in the development of effective immune-modulating treatments for RRMS, many of these approved drugs have been tested in Progressive MS with almost uniformly disappointing results. The relative lack of effective therapies for Progressive MS has further justified the exploration of novel treatment approaches. In that regard, the LPA/LPA1R axis has been proposed as a potential active pathway contributing to the pathophysiology of MS. Specifically, LPA is a pro-inflammatory lipid that has been shown to be elevated in the plasma and CSF of MS patients and that may promote neuroinflammation and limit remyelination through the activation of the LPA1R.

We have demonstrated in our preclinical studies that blocking LPA1R with PIPE-791 reduces neuroinflammation and promotes remyelination. We further demonstrate that the biological mechanism leading to remyelination involves PIPE-791-induced oligodendrocyte formation and survival. We confirmed this remyelination was functional via observed improvements in visual evoked potential (VEP) latency, a clinically translatable functional biomarker of remyelination.

We believe that PIPE-791 can be the first potential therapeutic to demonstrate the role of LPA1R antagonism in addressing the chronic neuroinflammation and demyelination associated with Progressive MS. To our knowledge, PIPE-791 is the only brain penetrant LPA1R antagonist in clinical development for Progressive MS.

CTX-343

In addition to PIPE-791, our brain penetrant drug candidate, we are also developing CTX-343, a peripherally-restricted LPA1R antagonist to further expand clinical indications involving LPA1R antagonism.

PIPE-307

Our second drug candidate, PIPE-307, is a novel, small molecule, selective inhibitor of M1R, which is in clinical development for the potential treatment of depression and RRMS. In February 2023, we entered into the J&J License Agreement, under which we granted J&J an exclusive, worldwide license to develop, manufacture and commercialize PIPE-307 in all indications. We received an upfront payment of $50.0 million, and we are eligible to receive milestone payments up to an aggregate of approximately $1.0 billion and tiered royalties in the low-double digit to high-teen percent range on future net sales of products containing PIPE-307. Additionally, we received a $25.0 million equity investment from JJDC. We are conducting a Phase 2 trial of PIPE-307 for the potential treatment of RRMS, which initiated in November 2023. In addition, J&J has the right, in its sole discretion, to further develop or elect not to develop PIPE-307 for RRMS. We have an opt-in right to fund a portion of all Phase 3 development costs for PIPE-307 in return for an increase in royalty rates by one to two percentage points. PIPE-307 is also in development for the potential treatment of depression, for which J&J plans to initiate a Phase 2 trial in 2024.

PIPE-307 for the Potential Treatment of Depression

Depression is one of the most common mood disorders with an approximate prevalence of 280 million people globally. Depression is associated with significant neuropsychiatric disability and increased mortality risk, and nearly 20% of U.S. adults suffer from the disorder. Despite numerous approved treatments, there remains a significant unmet medical need in the treatment of depression. It is well recognized that many patients fail to respond to currently available treatments, or the therapies are only partially effective. Further, these drugs are often associated with pronounced side effects, such as weight gain, sexual dysfunction, gastrointestinal issues and emotional blunting.

Targeting the cholinergic neurotransmitter system has been established as a strategy for the treatment of depression, strongly supported by studies testing scopolamine as a potential treatment agent. Scopolamine is a non-specific antagonist of all five muscarinic receptors (M1R through M5R), and has demonstrated rapid, robust, and durable antidepressant responses in patients with MDD and BPD. Further investigation showed that these clinical effects were specifically linked to M1R antagonism. However, the non-specific, anticholinergic properties of scopolamine lead to tolerability issues that are contraindicative in the setting of depression. As a selective M1R antagonist, we believe that the collective data support PIPE-307's development for the treatment of depression, while potentially avoiding off-target effects.

We have demonstrated proof-of-concept in PIPE-307 preclinical studies in depression, which exhibited increased miniature excitatory postsynaptic currents (mEPSC) amplitude, and increased presynaptic release events in the medial prefrontal cortex (mPFC) 24 hours after dosage. Further, PIPE-307 improved depression-like behaviors in a PST.

We believe that M1R antagonism has been identified as a key target to treat depression with supporting clinical proof-of-concept in multiple clinical trials with scopolamine. As a highly selective M1R antagonist, we believe that PIPE-307 may mitigate the side effects of scopolamine and therefore has the potential to be a novel therapeutic to treat depression.

PIPE-307 for the Potential Treatment of RRMS

We are also developing, in collaboration with J&J, PIPE-307 for the potential treatment of RRMS. A pathological hallmark of all forms of MS is the accumulation of demyelinating lesions that occur in the brain and spinal cord. In healthy neurons, myelin, which is a specialized extension of the plasma membrane of oligodendrocytes, serves as an insulator that allows for rapid and efficient conduction of

electrochemical signals along the axon. In MS, loss of myelin leads to slower signal transmission through the axon and eventual permanent loss of neuronal function. We believe treatments targeting remyelination, and the subsequent restoration of axonal conduction, can positively impact clinical disability and address the neurodegeneration associated with RRMS. While the FDA has approved over 20 therapies for RRMS that focus on immune modulation to reduce the annual rate of relapses associated with the inflammatory aspects of the disease, none of these therapies directly promote remyelination.

Clinical proof-of-concept for M1R antagonism and remyelination in RRMS was demonstrated in a Phase 2 randomized, double-blind, placebo-controlled crossover trial to assess the efficacy of clemastine, an FDA approved H1 antihistamine and non-selective antimuscarinic compound, as a remyelinating agent in RRMS. However, the antihistamine related side effects associated with clemastine complicate use of this drug in the MS patient population. In that regard, we developed PIPE-307 as a highly-selective M1R antagonist in order to avoid the side effects associated with broad anti-muscarinic agents.

We are currently enrolling a multi-center randomized, double-blind, placebo-controlled Phase 2 proof-of-concept trial of PIPE-307 as an adjunctive treatment in RRMS patients under IND authorization. We designed this trial, also referred to as the VISTA study, to assess efficacy and safety in patients with RRMS and to measure multiple clinical and imaging endpoints sensitive to changes in remyelination in RRMS.

Our Competitive Strengths

We have a strong, complementary relationship between our medicinal chemistry and biology functions and a team with broad and extensive expertise, which allows us to develop drug candidates for historically difficult targets. We believe that our competitive strengths include:

- Our broad expertise of NI&I indications allows us to seek to maximize the value of our drug candidates by developing them across multiple therapeutic areas.
- Our lead drug candidate, PIPE-791, targets the LPA1R, a clinically validated target for IPF, and, we believe, pending further clinical development and FDA approval, has the potential to treat IPF with once-daily dosing.
- We are advancing a new treatment paradigm in MS, by leveraging novel pathways that have the potential to support remyelination and reduce neuroinflammation.
- We have assembled a distinguished internal team and advisors that include pioneers of LPA1 and M1 biology, with decades of expertise in drug discovery and development.

Our Strategy

Our mission is to significantly impact the clinical disability associated with NI&I diseases with small molecules designed to modulate innate pathways to restore function. We aim to accomplish our goal by implementing the following strategies:

Execute a balanced development strategy in which we assess both external clinical validation and novel therapeutic approaches for our targets. We have built our current pipeline with the goal of minimizing clinical risk as we leverage external validation for our wholly-owned programs such as PIPE-791 for IPF and our partnered program PIPE-307 for both depression and RRMS. Based on scientific rationale, we also plan to progress breakthrough programs in disease areas where we believe there is potential to create significant clinical benefit and address high unmet need, such as our wholly-owned program PIPE-791 for Progressive MS.

Pursue clinical development of PIPE-791, a LPA1R antagonist, for the treatment of IPF, a sizeable market with high unmet need. There are approximately 130,000 patients in the United States with IPF, of which the average life span after diagnosis is three to five years. Currently, there are only two FDA-approved treatments in IPF, nintedanib and pirfenidone, which are limited by issues associated with safety, tolerability and compliance. LPA1R antagonism is a clinically validated mechanism, and we believe that our preclinical studies and Phase 1 healthy volunteer data support the continued development of PIPE-791 for both IPF and Progressive MS.

Pursue clinical development of PIPE-791 in Progressive MS to address the high unmet need for a therapy that has the potential to reduce neuroinflammation and support remyelination. We believe PIPE-791 has strong biological rationale to be a potentially novel treatment for Progressive MS.

Seek to maximize the value of PIPE-791 by investigating its applicability in a broad range of NI&I disorders beyond IPF and Progressive MS. We believe PIPE-791 has the potential for broad indication expansion due to the central role of LPA1 in multiple NI&I diseases and we are actively conducting preclinical experiments across those areas. Our future development strategy will be guided by data from our ongoing preclinical studies, observed external validation, and our focus on therapeutic potential in areas of high unmet need.

Support the advancement of PIPE-307 through a broad clinical development strategy through our partnership with J&J. J&J is an experienced innovator with a strong commitment to neuroscience, reporting $6.9 billion of neuroscience sales in 2022. Our collaboration provides a foundation for the development of PIPE-307 with J&J bearing the majority of the associated costs, and access to robust R&D and commercialization capabilities, which we believe will allow us to achieve the full potential of PIPE-307 in two large indications.

Further leverage our drug discovery capabilities to build out a franchise with deliberate focus on developing therapeutics that are synergistic with our existing portfolio, including our peripherally-restricted LPA1R antagonist, CTX-343. We believe that the development of a peripherally-restricted LPA1R antagonist drug candidate will provide us critical optionality for our portfolio. We will continue to leverage the capabilities and expertise of our team to identify and develop drug candidates with the highest likelihood of clinical and commercial success in NI&I.

Evaluate and selectively engage in strategic collaborations to maximize the potential of our pipeline. We recognize that circumstances might arise in which partnerships may provide a more prudent development path to reduce costs and accelerate the delivery of effective therapies to market, as exemplified by our partnership with J&J. Our collective expertise and strategic approach will guide us in selecting not only drug candidates with therapeutic potential but also ideal partners that can meaningfully contribute to the development and commercialization of our therapeutic portfolio.

Our Team

We have assembled a seasoned team with expertise in small molecule drug design across the fields of NI&I. Our Chief Executive Officer, Carmine Stengone, joined Contineum Therapeutics in October 2018. His previous roles include President, Chief Executive Officer and Director of Avelas Biosciences and co-founder and Chief Executive Officer of Afraxis, Inc. He also served as Senior Vice President, Business Development for COI Pharmaceuticals (now Avalon Bioventures) and a member of its investment committee, where he helped co-found six biotech companies, including two focused in neuroscience. Before that, he was with Phenomix Corporation as the Senior Director of Business Development, and previously held positions at Anadys and J&J. Daniel Lorrain is one of our founders

and serves as our Chief Scientific Officer with over 23 years of experience in small molecule drug discovery. Previously, Dr. Lorrain was Vice President of Biology at Inception Sciences where he led all aspects of biology and nonclinical pharmacology, including for Inception 5, a remyelination company acquired by Roche. Prior to this, he was at Amira Pharmaceuticals where he led development of the LPA1 program, which was a key driver in its acquisition by Bristol-Myers Squibb. Stephen Huhn serves as our Chief Medical Officer and Senior Vice President of Clinical Development and has over 15 years of experience in clinical development for neuroscience indications. Dr. Huhn previously served as Chief Medical Officer and Vice President of Clinical Development at StemCells, where he led multiple clinical programs in a wide range of neurology and ophthalmology indications. Dr. Huhn is a Fellow in the American Association of Neurological Surgeons, and was Chief of Pediatric Neurosurgery at Stanford University before joining StemCells in 2007. Peter Slover is our Chief Financial Officer and previously served as Chief Financial Officer at Sophiris, where he led Sophiris' initial public offering on the Nasdaq. Prior to that, he held several management positions at Anadys and spent seven years in public accounting at KPMG LLP.

LPA1 Franchise

Our lead asset, PIPE-791, is a novel, high affinity, brain penetrant, small molecule LPA1R antagonist. We are initially developing PIPE-791 for the treatment of IPF and Progressive MS, and in parallel we are exploring the potential clinical utility of PIPE-791 in additional disorders where the LPA1 pathway has been implicated. We completed a Phase 1 clinical trial of PIPE-791 that evaluated the safety, tolerability, and PK of single and multiple doses of PIPE-791 in healthy volunteers in support of clinical development in both IPF and Progressive MS.

We plan to submit a CTA to the MHRA to commence a Phase 1b open-label trial of PIPE-791 to measure the relationship of PK to lung and brain receptor occupancy by PET imaging in 2024. This Phase 1b trial will inform dose selection for our planned future Phase 2 trials of PIPE-791 in IPF and Progressive MS. In addition, we are advancing CTX-343, a peripherally-restricted LPA1R antagonist.

PIPE-791 for the Potential Treatment of IPF

We are developing PIPE-791 for the potential treatment of IPF. Based on the results of external and internal preclinical studies and emerging third-party clinical trials involving LPA1R antagonism to date, we believe there is a strong rationale for PIPE-791 to be disease modifying in IPF.

Disease Background

IPF is a chronic idiopathic interstitial lung disease characterized by progressive fibrosis of the lung tissue leading to severe loss of respiratory function. As the fibrosis progresses, the lung's ability to function and transfer oxygen into the bloodstream becomes increasingly impaired. Although the disease course is variable, the prognosis for overall survival is worse than many forms of cancer, with approximately 60% to 80% of patients dying from respiratory failure within five years of diagnosis.

IPF is a rare disease with approximately 130,000 patients in the United States and 30,000 to 40,000 new cases diagnosed annually, as of 2017. Worldwide, the prevalence is estimated to be three million cases, as of 2023. Although the mechanisms of fibrosis in IPF remain poorly understood, generally accepted concepts of disease pathogenesis involve recurrent subclinical injuries to alveoli (lung tissue) and failure of normal lung tissue repair. Injured cells within the alveoli release multiple cytokines and growth factors that promote the recruitment, proliferation, and differentiation of lung fibroblasts into myofibroblasts, leading to excessive collagen deposition, progressive scarring of the lung parenchyma, and irreversible loss of function. Although IPF is considered the prototypic progressive fibrosing ILD, a number of other ILDs display a progressive pathophysiology and clinical course similar to IPF.

IPF only effects the lungs, and patients generally present with non-specific symptoms such as shortness of breath on exertion, chronic cough, fatigue, and/or rapid weight loss. The diagnosis is most common in men ages 65 years and older. The major environmental factors that can lead to lung damage in IPF include cigarette smoking (current or ex-smokers), chronic viral infections, abnormal acid reflux, and environmental exposures. Genetic factors may also contribute to the development or worsen the prognosis of IPF. The physical, psychologic, and socio-economic consequences of IPF are burdensome on patients and healthcare providers, and are significantly exacerbated by an aging population.

Current Approved Therapies

While there is no pharmacological cure for IPF, there are two FDA-approved therapies to treat the disease: pirfenidone (Esbriet, marketed by Genentech/Roche) and nintedanib (Ofev, marketed by Boehringer Ingelheim). Both drugs were approved in 2014 and are recommended by the most recent treatment guidelines from 2015. Neither drug stops the progression of IPF and both are limited by issues associated with safety, tolerability and compliance with multi-daily dosing regimens. Lung transplant is currently the only cure for patients with IPF, but, due to age and comorbidities, this represents a realistic therapeutic option for only a minority of patients. We believe that PIPE-791 has the potential to address the limitations of current therapies and serve a large unmet need for IPF patients.

Pirfenidone is an orally available, synthetic compound that exerts anti-fibrotic, anti-inflammatory and antioxidant properties through down-regulation of key pro-fibrotic growth factors including TGF-b, inhibition of inflammatory cytokines (e.g., tumor necrosis factor-a) production and release, and reduction of lipid peroxidation and oxidative stress. Four registrational trials have evaluated the efficacy of pirfenidone in patients with IPF, with three showing that pirfenidone slows down disease progression as measured by rate of deterioration in forced vital capacity (FVC). Pirfenidone is prescribed in a dose-escalating pattern three times daily (TID) over a 14-day period to a target dose of 801 mg TID (total daily dose of 2,403 mg administered by nine 267 mg capsules). Common side effects of pirfenidone include gastrointestinal intolerance characterized by nausea, vomiting, dyspepsia, and diarrhea. Dose modification or discontinuation may be necessary in the case of severe side effects, with 19% of patients requiring dose reductions or interruptions due to gastrointestinal events in the clinical trials. Pirfenidone also carries the risk of skin reactions involving photosensitivity and rashes, with patients instructed to take sun exposure precautions.

Nintedanib is an intracellular inhibitor of vascular endothelial growth factor receptor 1–3, fibroblast growth factor receptor 1–3, and platelet-derived growth factor receptor a and b. By inhibiting these tyrosine kinase receptors, nintedanib interferes with a number of processes that have been implicated in the pathogenesis of IPF. Treatment with nintedanib in multiple clinical trials demonstrated a reduction in the one-year rate of decline in FVC by approximately 50%. The recommended dosage of nintedanib is 150 mg twice daily (BID) approximately 12 hours apart. The most frequent side effects associated with nintedanib are diarrhea (reported by approximately 60% of patients within the first 3 months of treatment, with over 10% of patients requiring permanent dose reduction), nausea, and vomiting. In addition to these gastrointestinal side effects, data from clinical trials with nintedanib noted a risk of arterial thromboembolic events, bleeding disorders, and gastrointestinal perforation.

In addition to the side effects noted above, which are associated with discontinuation of therapy, both pirfenidone and nintedanib have demonstrated risk for transaminitis, or elevation in liver enzymes. Both drugs require routine monitoring of liver function that can prompt dose reductions or treatment discontinuations, and each drug's label includes a warning relating to elevated liver enzymes and gastrointestinal disorders. Specifically, both pirfenidone and nintedanib have the additional warning of drug-induced liver injury and severe liver injury with fatal outcomes. Due to these issues associated with safety and tolerability, it has been estimated that approximately 40% to 50% of patients discontinued treatment on either drug within one year of initiation.

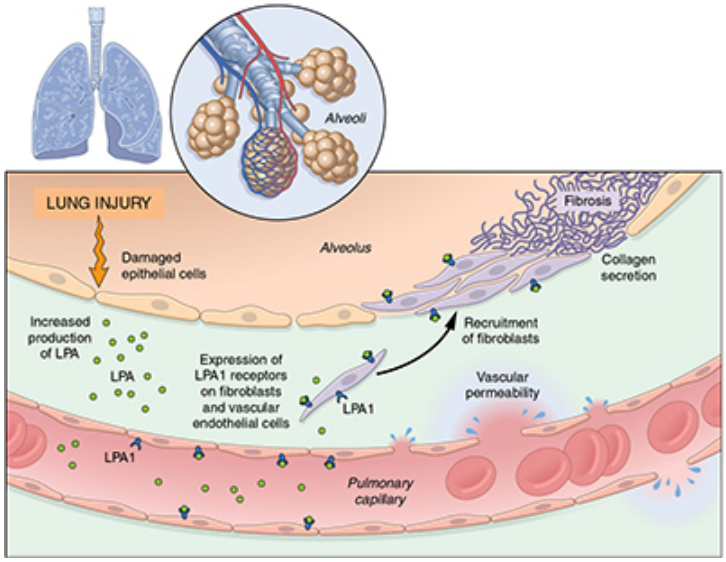
Despite the limitations highlighted above, pirfenidone and nintedanib generated more than $4 billion in combined total sales globally in 2022. Patent expiration for pirfenidone is 2022 (U.S.) and 2026 (EU and Japan), and the patent covering the API for nintedanib is 2025 (U.S., EU, Japan), respectively. In summary, IPF remains an indication with significant unmet need for effective therapies that can address some of these challenges.

Scientific Rationale for LPA1R Antagonism in IPF

LPA is a bioactive lysophospholipid that regulates numerous aspects of cellular function, such as proliferation, migration and cytoskeletal reorganization, and has been recognized as a novel mediator of wound healing and tissue fibrosis. LPA mediates its effects by signaling through a family of six G protein-coupled receptors, LPA1 to LPA6.

The link between the LPA/LPA1R pathway and IPF was first identified by Tager et al., 2008, following an observation that LPA, elevated in bronchoalveolar lavage fluid, promoted fibroblast migration. Using genetic knockout animals, studies demonstrated that this response was driven by activation of the LPA1R. In further studies, rodents lacking the LPA1R were protected from bleomycin-induced pulmonary fibrosis, one of the key animal models for IPF, by reducing fibroblast recruitment and vascular leak, as shown in the figure below. Subsequent studies have replicated these findings using small molecule LPA1R selective antagonists.

The following figure shows LPA1's mechanism in pulmonary fibrosis.



LPA1R antagonism has also demonstrated clinical proof-of-concept in third-party, randomized, double blind, placebo-controlled Phase 2 trials of LPA1R antagonists (BMS-986020 and BMS-986278) in patients with IPF.

The results of a Phase 2 parallel-arm, multi-center, randomized, double-blind, placebo-controlled trial in 143 adults with IPF treated with BMS-986020 were published in 2018. BMS-986020 is a high-affinity small molecule antagonist of the LPA1R. Patients in the 600mg BID cohort exhibited significantly slower rates of FVC decline from baseline to 26 weeks versus placebo. However, dose-related hepatobiliary toxicity led to early termination of the trial. After conducting additional toxicology investigations, BMS reported that hepatobiliary toxicity was likely caused by off-target inhibition of bile acids efflux transporters such as bile salt export pump (BSEP).

BMS-986278 is a second generation LPA1R antagonist that is biased away from BSEP, and the results of a Phase 2 trial in 276 IPF patients with this compound were recently released at the 2023 American Thoracic Society annual meeting. The outcome of the Phase 2 trial showed a statistically significant reduction in the decline in FVC following a 26-week administration of 60mg BID dose of BMS-986278 versus placebo with or without the use of background antifibrotic therapy. A global Phase 3 trial of BMS-986278 for IPF was recently initiated.

With regard to its high bioavailability, low plasma protein binding, and long receptor residence time in our preclinical studies, compared to the preclinical data of other LPA1R antagonists that we know are currently in development, we believe PIPE-791 has the potential to be a differentiated LPA1R therapy. We are developing PIPE-791 as a once daily (QD) therapy at low doses (<10 mg), compared to other LPA1R antagonists, including BMS-986278, which are being studied at significantly higher dose ranges (60-120 mg) all with BID administration.

PIPE-791 for the Potential Treatment of Progressive MS

We are also developing PIPE-791 for the potential treatment of Progressive MS. We believe that PIPE-791 has the potential to be a disease-modifying treatment (DMT) by impacting the neurodegeneration secondary to chronic demyelination and neuroinflammation, the two leading pathological contributors to clinical disability in Progressive MS. The development of a brain penetrant small molecule therapy that prevents worsening, reverses damage, and restores function would potentially address the major therapeutic unmet need in Progressive MS.

Disease Background

MS is a chronic, immune-mediated disease of the CNS characterized by demyelination and neuroinflammation which ultimately result in axonal loss and clinical disability. The destruction of myelin in the CNS is associated with activation of the adaptive immune system, represented by peripheral circulating T and B cells, and the innate immune system of the CNS, represented by microglia and macrophages. While demyelination, and subsequent failure of remyelination, is a core pathological feature across all forms and stages of MS, the adaptive immune system appears more active in the early (i.e., relapsed-remitting) stages of MS, and the innate immune system is more active in the later stages of MS (i.e., Progressive MS).

The prominent pathological features of demyelination and neuroinflammation in Progressive MS, combined with insufficient endogenous remyelination, ultimately results in axonal loss and clinical disability in Progressive MS. Demyelinated axons are susceptible to chronic injury and degeneration, as well as to reduced conduction capacity. In addition to demyelination, the chronically activated microglia of the innate immune system are implicated to play a central role in the neurodegeneration in Progressive MS. In post-mortem examinations of Progressive MS patients, activated microglia have been observed in chronically active lesions as well as normal-appearing white matter. Excessive activation of microglia is hypothesized to drive both acute and chronic axonal loss, by releasing toxic chemicals such as reactive oxygen species and nitric oxide, as well as by compounding further inflammation through the release of cytokines and inflammatory mediators that may attract additional immune cells. The chronic activation of microglia characteristic of Progressive MS is considered a major component of the emerging pathological construct referred to as “smoldering inflammation.”

The chronic neuroinflammation in Progressive MS is also associated with a relatively impermeable BBB in Progressive MS as compared to the more open BBB in RRMS. It has been hypothesized that in the setting of Progressive MS, the innate immune system drives neuroinflammation by activating local cellular responses behind a BBB that is less penetrable to peripheral T and B cells of the adaptive immune system. Because many DMTs that act on peripheral T

and B cells depend on a disrupted BBB for access to the CNS targets, this hypothesis may also explain the relative efficacy of DMTs in RRMS as compared to Progressive MS.

The clinical courses of SPMS and PPMS, while distinct from RRMS, are considered generally similar. Progressive MS is generally characterized by accrual of neurological disability independent of clinical relapses. The most common clinical manifestation in Progressive MS is myelopathy, or weakness of the legs and difficulty walking, followed by difficulty with balance and visual impairment. Patients with Progressive MS typically score more poorly than RRMS patients on the Expanded Disability Status Scale (EDSS), a common measure of neurological disability in MS.

Current Approved Therapies

In RRMS, the adaptive immune system drives neuroinflammation and demyelination that results in clinical relapses associated with new lesions observed by magnetic resonance imaging (MRI). In contrast, Progressive MS is marked by the accrual of clinical disability that is generally independent of relapses and new focal lesion formation. The majority of DMTs that dampen the inflammatory activity of adaptive immune cells associated with early disease course typified by RRMS have generally not been effective in Progressive MS. With the exception of mitoxantrone for the specific diagnosis of secondary (chronic) SPMS (which is rarely used in the United States due to issues related to safety and tolerability), and ocrelizumab for PPMS, none of the MS medications approved by the FDA carry a specific indication for Progressive MS.

Although many DMTs approved for RRMS also carry the indication for SPMS with clinical evidence of active inflammation, the EXPAND Phase 3 trial for siponimod was the only study in the last 20 years to meet the primary efficacy endpoint of slowing disability accumulation compared to placebo in active SPMS. The active form of SPMS is defined as including the presence of clinical relapses or new lesions by MRI examination. In contrast, natalizumab, one of the most effective DMTs in suppressing peripherally mediated inflammation in RRMS, did not reduce the proportion of SPMS patients with confirmed disability progression (CDP) in the ASCEND two-year Phase 3 trial. The outcomes of the ASCEND and EXPAND trials are consistent with the concept that increasing clinical disability in Progressive MS is being driven by immune processes compartmentalized to the CNS and that the adaptive immune system plays a less prominent role.

The treatment options for patients with PPMS are even more limited than the treatment options for SPMS. Ocrelizumab, a monoclonal antibody against the CD20 antigen on B cells, is the only FDA-approved treatment option for PPMS. Ocrelizumab was studied in an event-driven trial, with CDP as the primary endpoint. The key inclusion criteria were patients aged younger than 55, evidence of specific clinical disability by EDSS score, and the presence of CSF-specific oligoclonal bands or evidence of CNS inflammation through the presence of immunoglobulins. The primary outcome of the trial showed a 24% reduction in CDP (p=0.03). This reduction in CDP is considered moderate, and there was no significant between-group difference in the physical component of the quality-of-life measure. Safety risks related to ocrelizumab, while infrequent, can be severe and include infusion reactions, increased risk of infection, and reactivation of hepatitis B and herpes.

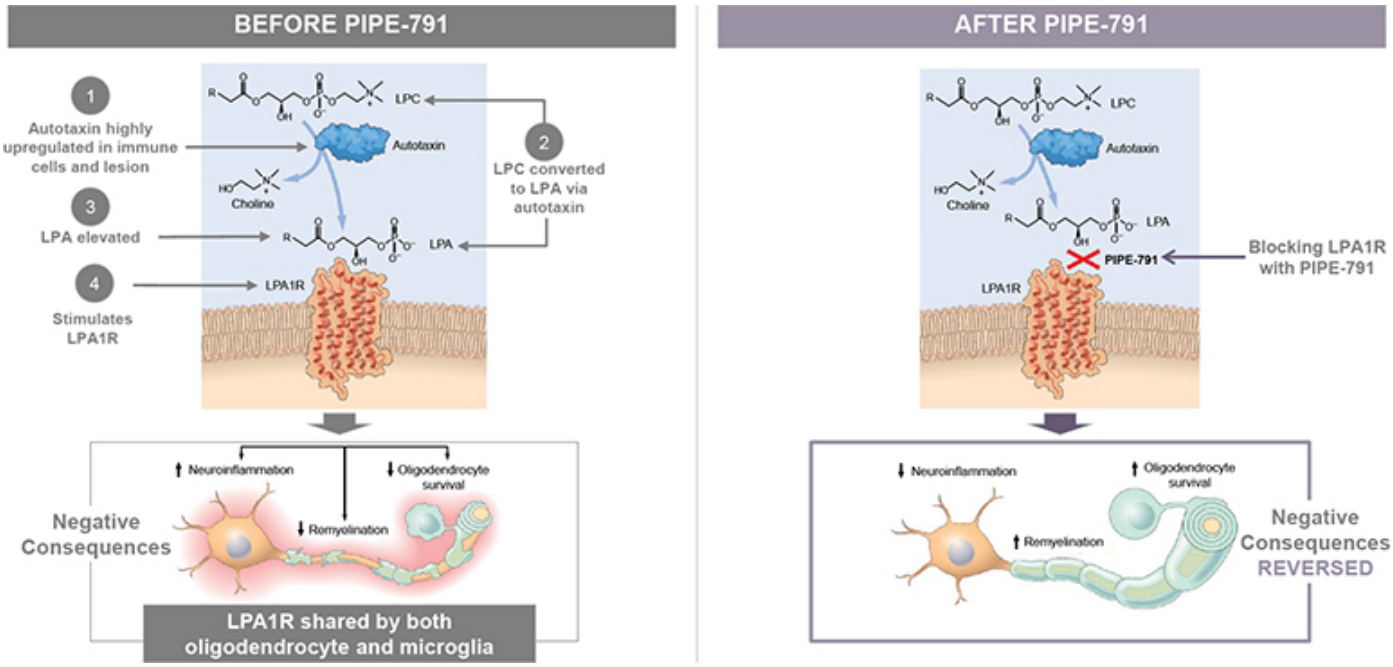
In summary, patients with Progressive MS have very few treatment options based on approved effective therapies.

Scientific Rationale for LPA1R Antagonism in Progressive MS

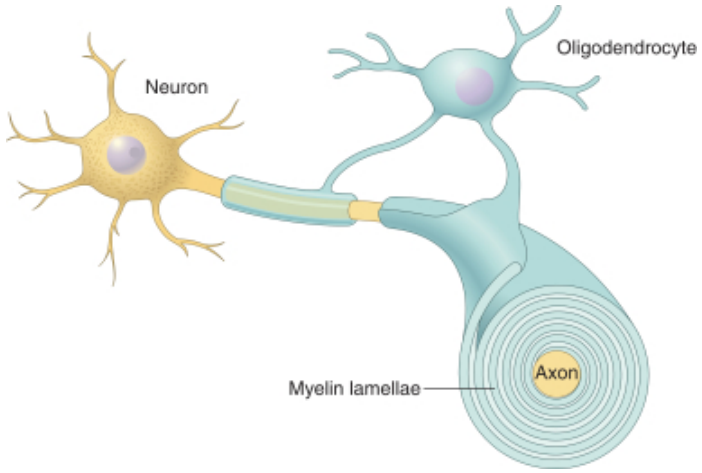
LPA is a pro-inflammatory lipid that is elevated in the plasma and CSF of MS patients and that may promote neuroinflammation and limit remyelination through the activation of specific receptors such as the LPA1R. LPA activates the G-protein coupled receptor LPA1, resulting in increased

cytokine and chemokine levels in the CNS, infiltration of peripheral immune cells, and microglial and astrocyte activation, which is part of the neuroinflammatory response that leads to demyelination. LPA may also suppress remyelination by directly activating LPA1R located on oligodendrocyte precursor cells (OPCs). Blocking the LPA/LPA1R pathway with PIPE-791 has the potential to be disease modifying by reducing neuroinflammation and promoting remyelination through inducing OPC differentiation into oligodendrocytes capable of remyelination. Additionally, PIPE-791 enhances survival of oligodendrocytes within an inflammatory environment.

The following figures show LPA1 is a key regulator of remyelination and neuroinflammation.



The following figure shows mature oligodendrocytes derived from differentiation of OPCs wrap the axons of neurons to protect and facilitate nerve conduction. The inability to restore myelin after a demyelinating injury to the axon results in long-term degeneration of the neuron.



Based on the potential for PIPE-791 to support remyelination and mitigate neuroinflammation, the leading causes of neurodegeneration and accrual of disability, we believe that there is strong biological rationale for LPA1R antagonism to have a clinical benefit in Progressive MS patients.

Our PIPE-791 Phase 1 Healthy Volunteer Trial

We completed a Phase 1 single ascending dose (SAD)/multiple ascending dose (MAD) and food effect (FED) clinical trial of PIPE-791 in healthy volunteers in January 2024. This trial was a single-center, double-blind, placebo-controlled safety, tolerability, and PK trial of oral administration of PIPE-791 in healthy male and female volunteers aged 18 to 55 years under IND authorization. The primary objective of the trial was to assess the safety and tolerability of single and repeat oral doses of PIPE-791 in healthy volunteer subjects. The secondary objective of the trial was to assess the single and repeat dose PK profile of PIPE-791. The trial met the primary and secondary objectives.

In the SAD component of the trial, we administered single doses of PIPE-791 to 24 participants across four dose cohorts of 1, 5, 10 and 20 mg, with six participants at each dose cohort (SAD1, SAD2, SAD3, and SAD4, respectively). Eight additional participants in the SAD component of the Phase 1 trial received placebo doses. We tested the subjects in the 10 mg SAD cohort after a single dose of PIPE-791 in both the fasted and FED state. In the MAD component of the trial, we administered PIPE-791 to 18 participants over 1, 3 and 10 mg dose cohorts, with six participants at each dose cohort (MAD1, MAD2, and MAD3, respectively). Six additional participants in the MAD component of the Phase 1 trial received placebo doses. The 1 and 3 mg MAD dose cohort participants received once-daily dosing over 7 days, and the 10 mg MAD dose cohort participants received once-daily dosing over 14 days.

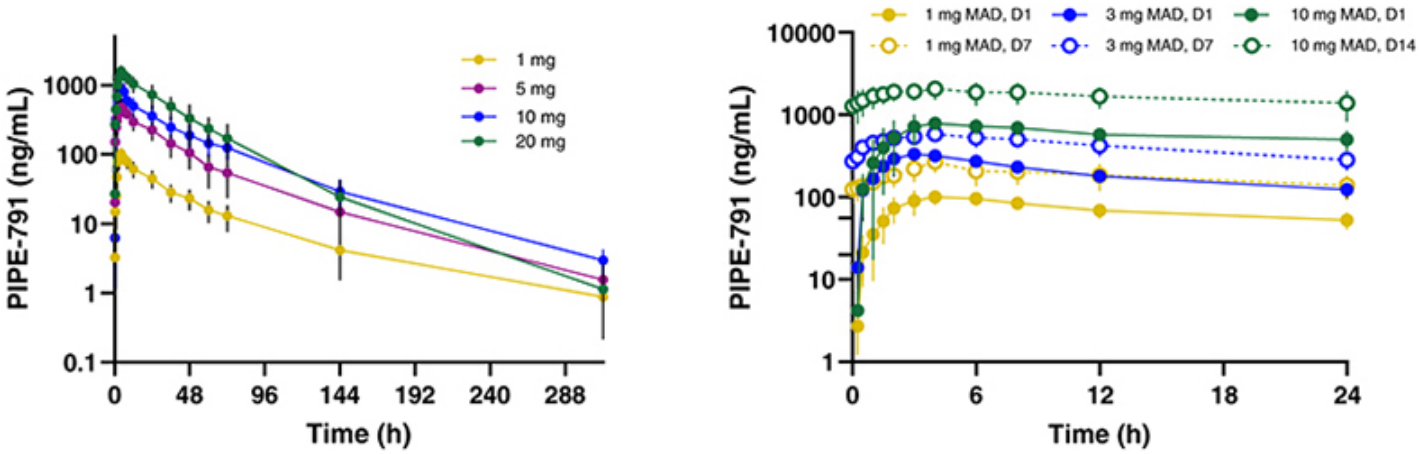
In this Phase 1 trial, PIPE-791 was shown to be well-tolerated across all four SAD and three MAD dose cohorts in healthy volunteers. Excluding AEs related to soreness secondary to venipuncture and contact dermatitis related to EKG electrode pads, all but three treatment emergent adverse events (TEAEs) were considered Grade 1. The two Grade 2 TEAEs under active drug assignment included a Grade 2 AE of back pain (SAD4) and a Grade 2 AE of consitpation (MAD3). A Grade 2 AE of headache was reported in a single placebo subject. There were no Grade 3 or Grade 4 AEs reported during the trial. All reported AEs recovered and resolved, and there were no dose-limiting AEs nor was a relationship or pattern to AEs and dose detected. There were no notable abnormal clinical laboratory values, ECG, or vital signs observed.

The following table provides the TEAEs that were reported in two or more trial participants.

TEAE* (Preferred Term)	Placebo (n=14)	SAD1 (n=6)	SAD2 (n=6)	SAD3 (n=6)	SAD4 (n=6)	MAD1 (n=6)	MAD2 (n=6)	MAD3 (n=6)
Abdominal pain		1	1					
Nasal congestion				1				1
URI			1					2
Rhinitis				1				1
Headache	1		1		3	1		
Back pain				1	2			

* AEs related to venipuncture soreness (n=2) and contact dermatitis secondary to ECG electrodes (n=9) have been excluded.

PIPE-791 displayed a SAD half-life dependent on dose that ranged from 55 to 31 hours for the 1 mg and 20 mg dose cohorts, respectively. Co-administration of PIPE-791 with food slightly delayed T_{max} and reduced C_{max} relative to the fasted state, but with no overall impact on exposure. The figures below provide the SAD PK for all four dose cohorts to Day 14 (left figure) and the 24-hour MAD PK for all three dose cohorts for Day 1 and Day 7 (MAD1 and MAD2) and Day 1 and Day 14 (MAD3) (right figure).



Our PIPE-791 Preclinical Toxicity Studies

We evaluated the toxicity profile of PIPE-791 in a comprehensive animal studies described below. The toxicology studies consisted of oral dosing in rodents and minipigs for up to 28 days, with four-week recovery periods. Furthermore, we completed a battery of *in vitro* and *in vivo* genotoxicity studies to assess the genotoxic potential of PIPE-791. In summary:

- We conducted single-dose, 14-day, and 28-day GLP toxicology studies in Sprague Dawley rodents. A no-observed-adverse-effect level (NOAEL) of 1000 mg/kg/day (the highest dose tested) was established in the 28-day GLP study, with no adverse effects or findings of toxicological significance observed at any dose level.
- We conducted single-dose, 14-day, and 28-day GLP toxicology studies in Göttingen minipigs. An NOAEL of 1000 mg/kg/day (the highest dose tested) was established in the 28-day GLP study, with no adverse effects or findings of toxicological significance observed at any dose level.
- We demonstrated that PIPE-791 was negative for mutagenicity in a GLP *in vitro* Ames test, negative for clastogenicity under 24-hour treatment conditions in a GLP *in vitro* chromosomal aberrations assay, and negative for clastogenicity *in vivo* in bone marrow following 28 days of repeat oral dosing at 1000 mg/kg/day in Sprague Dawley rodents.
- Based on these data, we have initiated six-month rodent and nine-month minipig chronic toxicity studies in January 2024.

Our PIPE-791 Development in IPF

Overview of PIPE-791 Preclinical Proof-of-Concept Studies

Through preclinical studies, we have demonstrated PIPE-791's *in vitro* pharmacology and *in vivo* pharmacodynamic properties, which are summarized below.

PIPE-791 is a Potent LPA1R Antagonist In Vitro

We tested PIPE-791 in a competitive membrane filter binding assay using membranes from cells overexpressing human LPA1. We found that PIPE-791 bound human LPA1R with single-digit

nanomolar potency with half maximal inhibitory concentration (IC_{50}). Next, we examined the kinetics of PIPE-791 binding to LPA1R in a recombinant membrane setting. We found that PIPE-791 exhibited slow association and dissociation kinetics. PIPE-791 was tested in a functional calcium (Ca^{2+}) mobilization assay using either 30 minutes or 24 hour pre-incubation periods prior to LPA addition. The slow on-rate kinetics of PIPE-791 likely contribute to the shift in potency observed going from the 30 minutes to the 24 hour Ca^{2+} mobilization assay. PIPE-791 also showed selectivity against the two most homologous LPA receptor isoforms, LPA2 and LPA3, with >30 fold selectivity. PIPE-791 was screened against 78 targets (Eurofin SAFETYscan) at a concentration of 30 μM with no appreciable activity.

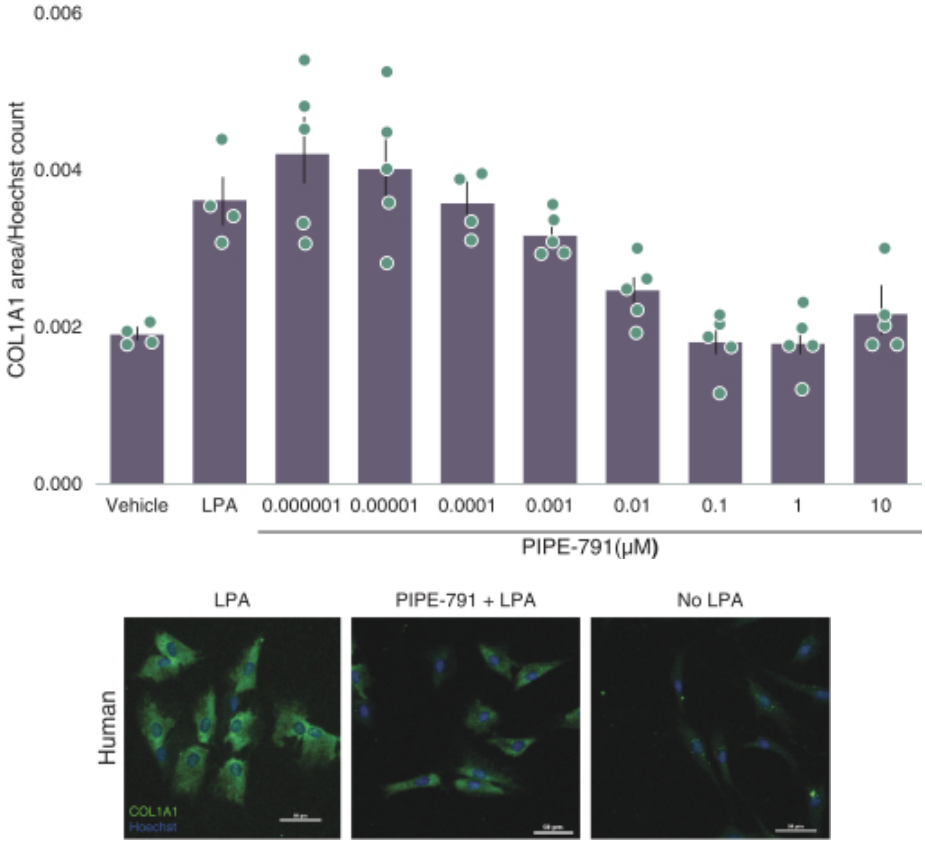
The following figure provides a summary of PIPE-791 *in vitro* radioligand binding and selectivity profile in Ca^{2+} mobilization. We assessed selectivity using a three hour incubation of PIPE-791.

Properties	***In vitro Profile***
Radioligand binding Ki (nM)	0.752 (IC_{50}: 2.63)
K_{off} (min^{-1})	0.001334
Functional LPA1 Ca^{2+} mobilization (nM, 30 minutes)	91.8
Functional LPA1 Ca^{2+} mobilization (nM, 24 hours)	9.9

PIPE-791 Inhibits LPA1-Induced Fibroblast Chemotaxis and Collagen Production In Vitro

The addition of LPA to fibroblasts results in an increase in chemotaxis and collagen production. Both processes are inhibited by antagonists of LPA1R. In a chemotaxis assay using primary human fibroblasts, PIPE-791 inhibited LPA-induced chemotaxis at an IC_{50} of 1.5 nM. In a collagen induction assay, PIPE-791 inhibited LPA-induced collagen production (COL1A1) in primary human lung fibroblasts at an IC_{50} of 1.14 nM.

The following figure shows PIPE-791 inhibits LPA1-induced collagen production in human fibroblasts.

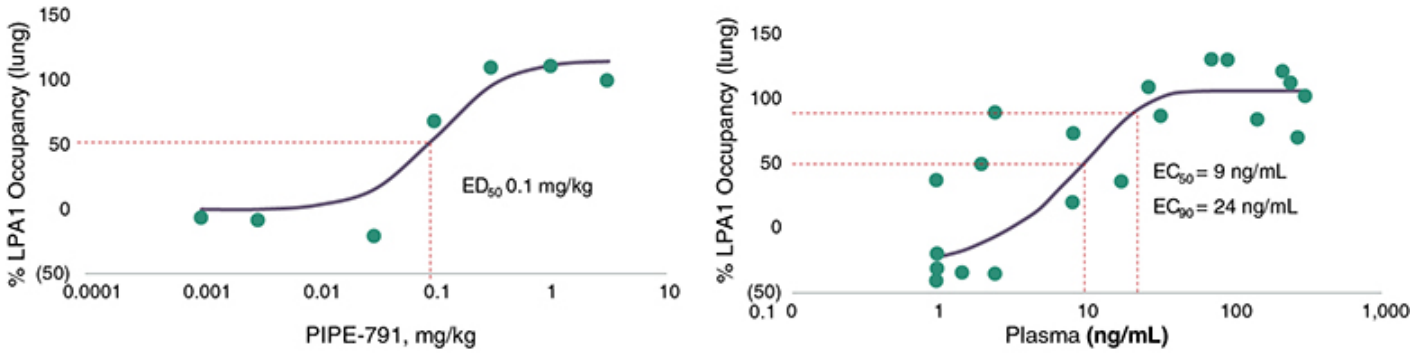


PIPE-791 In Vivo Lung LPA1R Occupancy

We evaluated the *in vivo* receptor occupancy of PIPE-791 using a novel selective LPA1 radioligand [^{3}H]-PIPE-497. We dosed PIPE-791 orally, QD for four days in order to approximate binding at steady state coverage and to account for the slow kinetics of PIPE-791 binding observed with *in vitro* binding assays.

We demonstrated that PIPE-791 dose-dependently inhibits radioligand binding with a half maximal dosing effect (ED_{50}) of 0.1 mg/kg. We determined the corresponding plasma concentration and 90% maximal effect (EC_{90}) to be 9 ng/mL and 24 ng/mL, respectively. Correcting for plasma protein binding in rodents (96.6%), we estimated that the resulting unbound EC_{50} is 0.30 ng/mL (0.7nM), consistent with the *in vitro* binding affinity 0.75 nM.

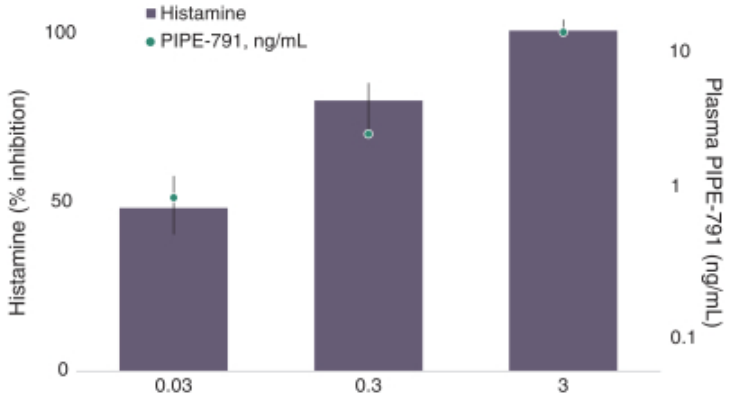
The following figure provides PIPE-791 lung receptor occupancy, including receptor occupancy versus oral dose (left figure) and receptor occupancy versus PIPE-791 plasma concentration (right figure).



PIPE-791 LPA-Induced Histamine Response In Vivo

Intravenous LPA challenge leads to rapid but short-lived increase in plasma histamine. This response has been shown to be LPA1R dependent and, as such, has become widely used as a pharmacodynamic biomarker for LPA1R inhibition. We evaluated PIPE-791 for the ability to inhibit LPA-induced plasma histamine after four days of QD dosing to measure inhibition at steady state coverage. We collected plasma two minutes after LPA challenge. Following multiple days of dosing (to reach steady state coverage), we observed that PIPE-791 dose-dependently inhibited plasma histamine with an ED_{50} of approximately 0.03 mg/kg, and a maximal inhibition at a dose level of 3 mg/kg with corresponding plasma concentrations of 15 ng/ml. These pharmacodynamic results show PIPE-791 provides sustained, 24 hour, LPA1R inhibition at low plasma concentrations with a QD dosing paradigm.

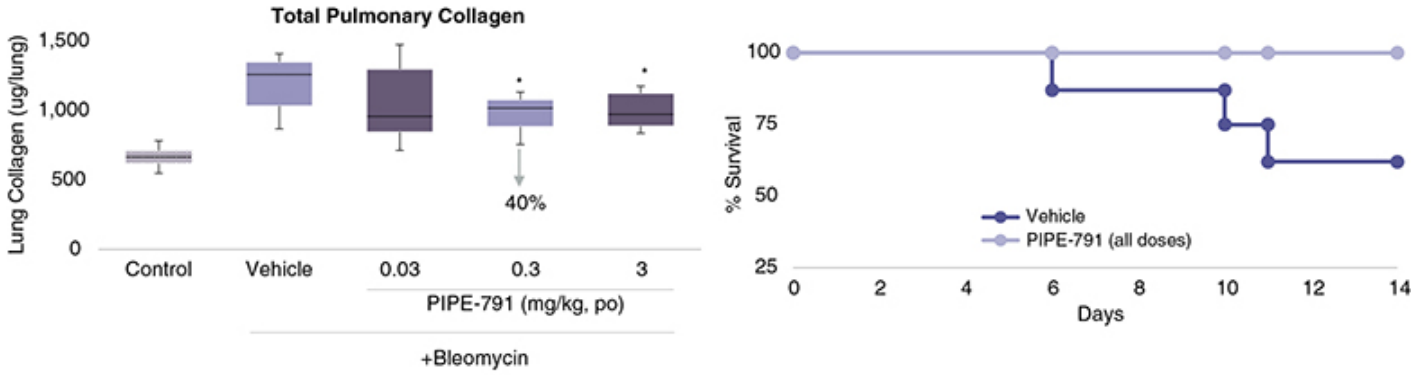
The following figure shows that PIPE-791 inhibits LPA-induced plasma histamine release.



In Vivo Lung Fibrosis Model

We evaluated the ability of PIPE-791 across multiple doses to reduce fibrosis in response to injury in a rodent bleomycin-induced lung fibrosis model, a standard animal model of IPF. Rodents received bleomycin sulphate (Blenoxane, 3.0 units/kg) via oropharyngeal instillation. Treatment of these rodents with PIPE-791 increased overall survival and led to a dose-dependent decrease in lung tissue fibrosis evaluated 14 days following bleomycin instillation. Body weights also improved with PIPE-791.

The following figures show PIPE-791 is active in the bleomycin model, including total lung collagen (left figure) and survival (right figure).



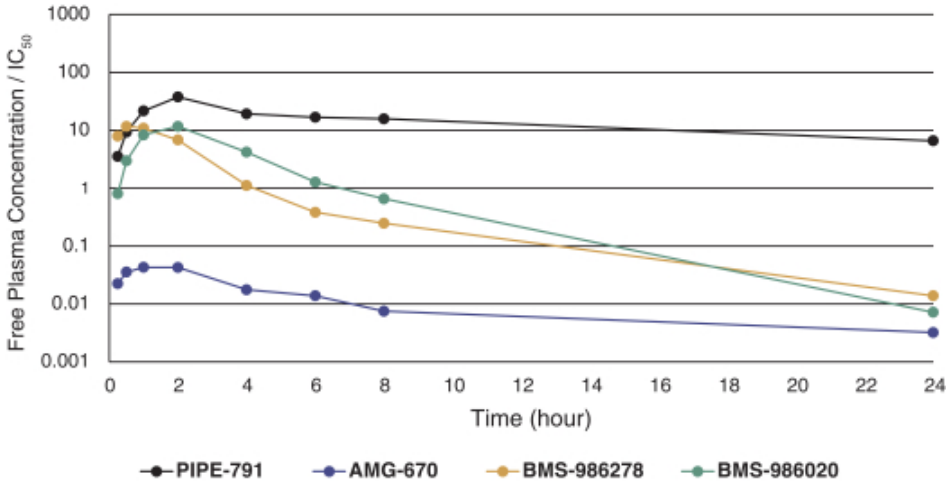
*p<0.05 versus vehicle; one-way ANOVA followed by Dunnett's post hoc comparisons

Preclinical Data Comparison Between PIPE-791 and Other LPA1R Antagonists

We believe that our preclinical studies and Phase 1 healthy volunteer data support the continued development of PIPE-791 for both IPF and Progressive MS. Specifically, with regard to its high bioavailability, low plasma protein binding, and long receptor residence time in our preclinical studies compared to the preclinical data of other LPA1R antagonists that we know are currently in development, we also believe PIPE-791 has the potential to be a differentiated LPA1R therapy. We designed PIPE-791 to block the LPA1R while avoiding inhibition of BSEP, the transporter involved in hepatobiliary toxicity associated with previous LPA1R compounds, such as BMS-986020. BMS-986020 is a first generation LPA1R antagonist which has been observed in third-party preclinical studies to elicit hepatobiliary toxicity due to inhibition of BSEP at its expected clinically efficacious dose of 600 mg BID. In third-party preclinical studies, the resulting cholestatic hepatotoxicity of BMS-986020 was recapitulated *in vitro* through a Sandwich-Cultured Human Hepatocyte (SCHH) assay (68% at 10 μM). Given the low anticipated efficacious clinical dose of PIPE-791 (<10 mg QD), its minimal inhibition of the bile acid transporters (i.e. BSEP IC50 $\geq$ 20 μM) *in vitro*, and the lack of any observable general or cholestatic toxicity signal in the SCHH assay (0% at 30 μM), we believe the risk of similar hepatobiliary toxicity in the clinic with PIPE-791 is low.

We also designed PIPE-791 to have high oral bioavailability, high metabolic stability, low plasma protein binding, as well as low nanomolar functional inhibitory activity against LPA1R. Preclinically, these features combine to allow PIPE-791 to achieve high occupancy of the LPA1R for more than 24 hours after a single oral dose. To enable the head-to-head comparison of PIPE-791 against known third-party compounds, we used fold of free plasma drug concentration over *in vitro* LPA1R functional IC_{50} after a single oral dose of 10 mg/kg in rodents as a quantitative measurement of LPA1R target engagement *in vivo across* time. We observed that PIPE-791 is, capable of fully covering the LPA1R receptor IC_{50} across 24 hours. Under the same conditions in our preclinical comparison studies, none of the other LPA1 receptor antagonists achieved 24-hour coverage above their respective IC_{50}.

The following figure represents the time of free plasma concentrations over IC_{50} for each respective LPA1 receptor antagonist in our preclinical studies. Values greater than 1 on the y-axis represent plasma concentrations that exceed the IC_{50}; whereas, values less than 1 represent plasma concentrations below the IC_{50}.



We also assessed the key parameters for these compounds head-to-head in both *in vitro* and *in vivo* experiments. The following table compares the *in vitro* binding and *in vivo* absorption properties of PIPE-791 with the other LPA1 receptor antagonists, including: i) calcium mobilization IC50 using cells expressing human LPA1R; ii) plasma protein binding using rodent plasma; and iii) oral bioavailability in rodents following a single oral dose of 10 mg/kg formulated in 1% hydroxypropyl methyl cellulose with 0.1% TWEEN80, a polyethylene sorbitol ester, and an intravenous bolus dose of 2 mg/kg formulated in 60% PEG400 and 40% water. The free acid form was used for each compound.

Assays	PIPE-791	BMS-986278	BMS-986020	AMG-670
hLPA (Ca^{2+} flux) IC_{50}	9.9 nM	80 nM	2.0 nM	9.2 nM
Plasma protein binding, % Free (Rodent)	5.7	15	0.2	0.07
Oral bioavailability, *F (%)	78	138	64	4.7

*Fraction absorbed

Clinical Development Plan of PIPE-791 in IPF

Based on the favorable safety results from our recently completed Phase 1 healthy volunteer trial, we plan to submit a CTA to the MHRA in 2024 to commence a single-center Phase 1b open-label trial of PIPE-791 in IPF to measure the relationship of PK and lung receptor occupancy by PET imaging. We will design this trial to inform dose selection for a planned future Phase 2 trial in IPF. We expect to submit an IND to the FDA to support the planned Phase 2 trial in IPF in 2025 following completion of the planned six-month rodent and nine-month minipig GLP toxicity studies. Subject to the FDA's review and authorization of our IND, we plan to commence a proof-of-concept multi-center Phase 2 randomized double-blind, placebo-controlled safety trial in patients with IPF. The proposed primary endpoint will be to assess the rate of change in FVC from baseline to six months.

Our PIPE-791 Development in Progressive MS

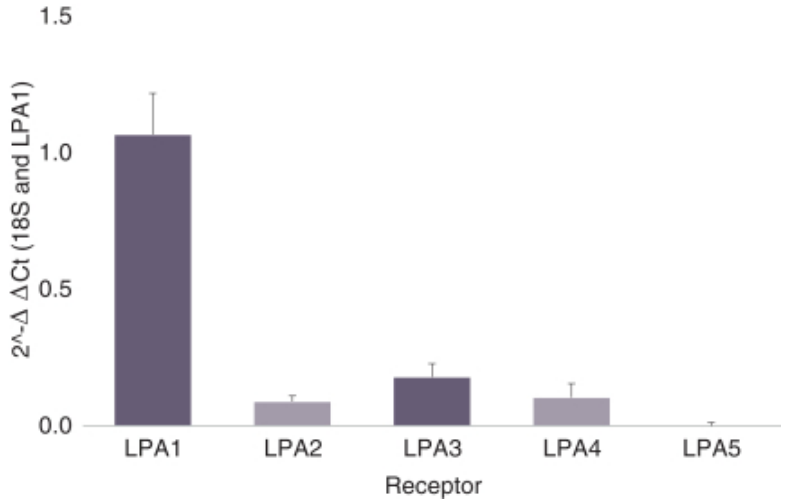
Overview of PIPE-791 Preclinical Proof-of-Concept Studies

PIPE-791 is a novel, high affinity, orally available, brain penetrant, small molecule LPA1R antagonist that we believe can be disease modifying by addressing chronic demyelination and neuroinflammation, the two leading pathological contributors in Progressive MS. In our preclinical studies, we have demonstrated that PIPE-791 induces OPC differentiation into oligodendrocytes and enhanced survival of oligodendrocytes in the presence of inflammatory cytokines. In our preclinical studies, we observed that LPA1R antagonism reverses immune-mediated neuroinflammation and promotes remyelination in *in vivo* and *in vitro* MS models. PIPE-791 also reduced the cytokine response in an acute lipopolysaccharide (LPS) challenge model of neuroinflammation, a model widely used to induce both neuro-and peripheral inflammation. Further, our *in vivo* binding studies confirm prolonged receptor association that resulted in durable CNS receptor occupancy. Together, these results offer a compelling rationale for the further development of PIPE-791 as a potential treatment for Progressive MS, as well as MS more broadly.

LPA1R Expression is Enriched in OPCs Compared to Other Isoforms In Vitro

We have independently demonstrated enriched LPA1R expression in OPCs, as reported by earlier studies. We isolated OPCs from rodent cortex and then assayed the LPA1-5 receptors by quantitative polymerase chain reaction (PCR). In addition to confirming the presence of LPA1, we observed that LPA2-5 mRNA expression levels were significantly lower in OPCs.

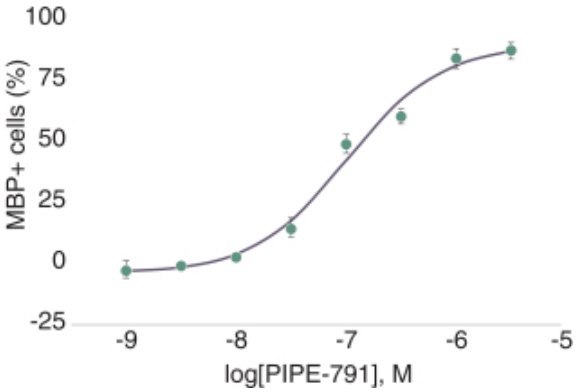
The following figure provides evidence that LPA1 expression is enriched compared to other isoforms on OPC.

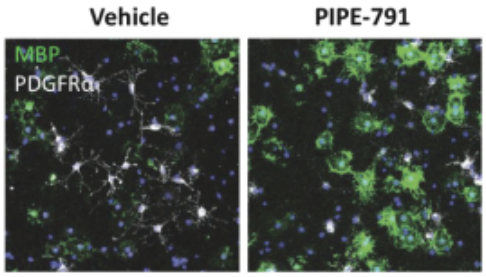


PIPE-791 Induced Rodent OPC Differentiation In Vitro

We isolated and cultured primary rodent OPCs in the presence of platelet-derived growth factor (PDGFa), which promotes survival and initiates proliferation. Following PDGFa removal, we added various concentrations of PIPE-791 to the cultures and maintained the cultures for three days. We then immunostained these cultures for myelin basic protein (MBP), which is a marker for differentiated OPCs or oligodendrocytes. Following PIPE-791 treatment, we observed a concentration dependent increase in the number of oligodendrocytes. The concentration to produce an EC_{50} was estimated to be 108 nM, demonstrating the role of PIPE-791 has in promoting OPC differentiation.

The following figures show PIPE-791 induced OPC differentiation into oligodendrocytes, including the PIPE-791 concentration response curve (left figure) and the immunostaining for MBP (right figures).

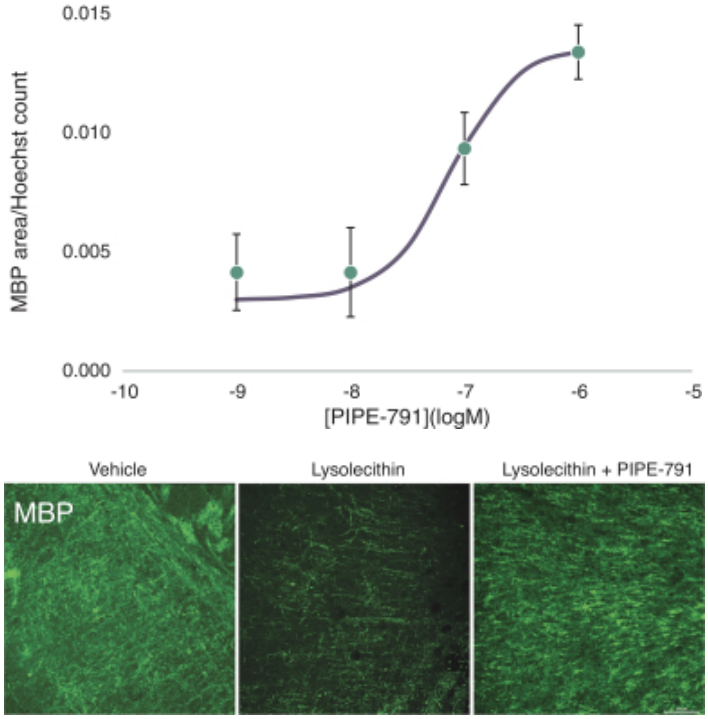




PIPE-791 Induced Remyelination in Rodent Organotypic Brain Slice Culture

We next used an *ex vivo* organotypic brain culture to assess the effect of PIPE-791 in remyelination following a demyelinating insult. We treated rodent cortical brain slices with lysolecithin, which induces acute demyelination through a non-specific lipid-based mechanism. We removed the lysolecithin 18 hours later and replaced it with media containing PIPE-791. After three additional days of incubation, we processed the brain slices for immunostaining against MBP. We quantified the MBP+ area and observed a dose-dependent increase following PIPE-791 treatment with an EC_{50} of 74 nM.

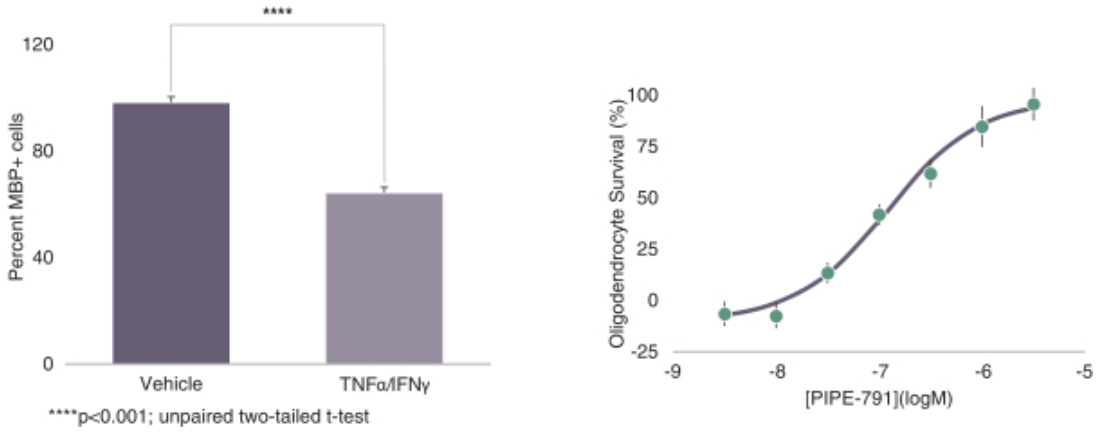
The following figures show PIPE-791 increased remyelination in an *ex vivo* organotypic brain culture assay, including the PIPE-791 concentration response curve (top figure) and the immunostaining for MBP (bottom figures).



PIPE-791 Promoted Oligodendrocyte Survival In Vitro

TNFa and IFNg are two cytokines that, while not normally expressed in the CNS, are elevated in MS. These cytokines can be secreted by both macrophages and microglia. Upon addition of these cytokines, we observed significant cell death consistent with previous observations. To test whether PIPE-791 could afford protection after cytokine insult, cells that were treated with TNFa and IFNg were also treated with various concentrations of PIPE-791. In the presence of PIPE-791, we observed dose-dependent protection of MBP+ oligodendrocytes with an EC_{50} of 119 nM. We believe these results suggest that PIPE-791 promotes oligodendrocyte survival in addition to differentiation in the context of an inflammatory microenvironment.

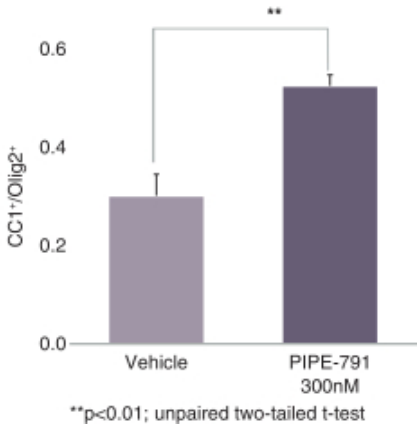
The following figures show a 35% decrease in viability of oligodendrocytes in response to TNFa and IFNg (left figure) and that the addition of PIPE-791 prevented oligodendrocyte death in a dose-responsive manner (right figure).

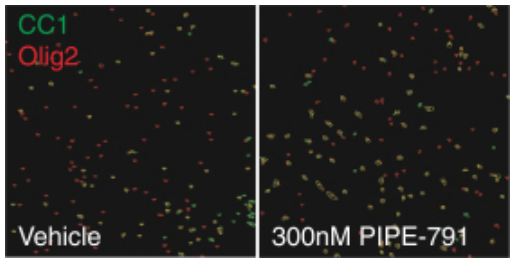


PIPE-791 Induces Differentiation of OPCs into Oligodendrocytes in Human Organotypic Brain Slice Culture

Our preclinical *in vitro* studies have demonstrated PIPE-791's robust LPA1R antagonism and its ability to promote differentiation of rodent OPCs into oligodendrocytes. To assess whether we could demonstrate a similar effect in human OPCs, we evaluated oligodendrocyte markers in human cortical slice cultures after treatment with PIPE-791. We generated cortical slices from regions containing both white and gray matter from healthy human adult donor tissue and cultured them for ten days. We then added PIPE-791 to the culture for nine days. We processed the brain slices by immunostaining for CC1+ cells, a marker for mature oligodendrocytes. We observed an increase in CC1+ cells suggesting that PIPE-791 has the potential to induce OPC differentiation in a human setting.

The following figures show PIPE-791 induced oligodendrocytes in human cortical slice cultures, including the number of CC1+ cells in both vehicle and cultures treated with PIPE-791 (left figure) and representative images of slices stained with CC1 (green) in both vehicle and cultures treated with PIPE-791 (right figures).

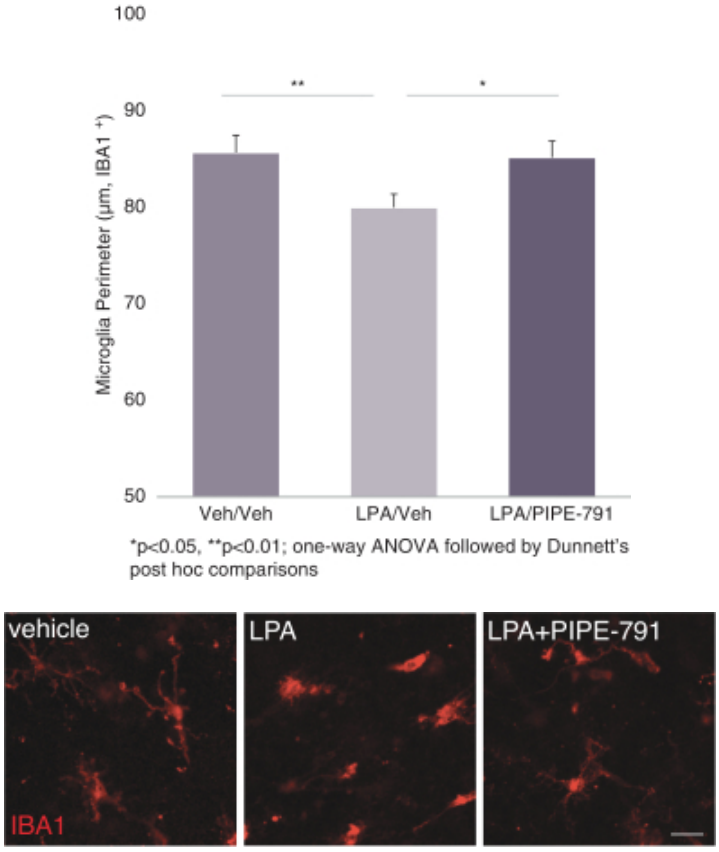




PIPE-791 Inhibits LPA-Induced Microglia Activation In Vitro

LPA is elevated during MS and may participate in microglial activation. LPA-activated microglia are inflammatory and release cytokines, such as TNFa and IL-1. Because these cytokines may exacerbate damage and impede remyelination, inhibiting such proinflammatory microglial activation may promote repair. We evaluated PIPE-791 in an *ex vivo* microglial activation assay using LPA challenge. We observed that PIPE-791 significantly inhibited LPA-induced changes in IBA1+ microglia morphology, a hallmark of activation.

The following figures show that PIPE-791 inhibited LPA-induced microglia activation including the quantification of the microglia activation in the various treated mediums (top figure) and immunostaining for IBA1 in the various treated mediums (bottom figures).

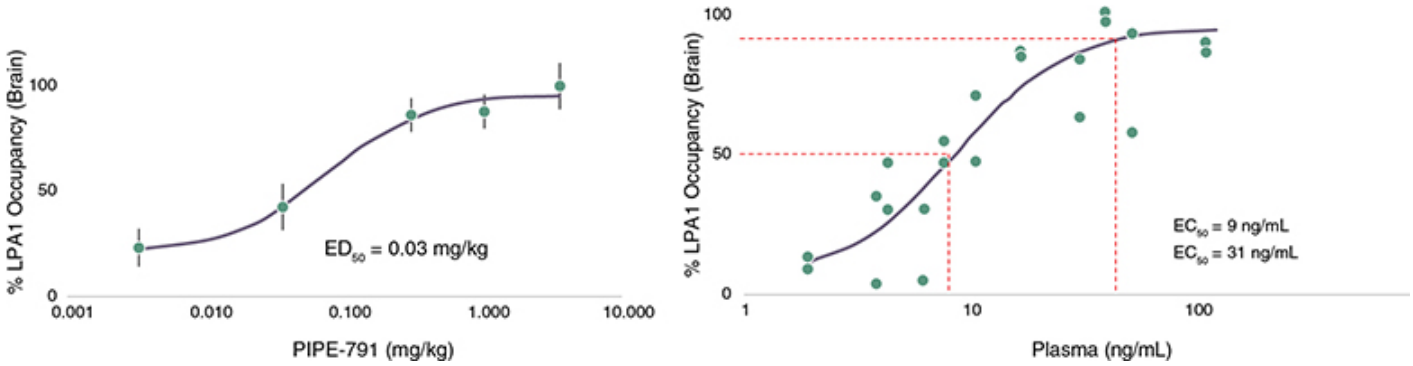


PIPE-791 In Vivo CNS LPA1R Occupancy

We evaluated the *in vivo* receptor occupancy of PIPE-791 using a novel selective LPA1 radioligand, [^{3}H]-PIPE-497, in rodents. In order to both approximate binding at steady state and account for the specific kinetics of PIPE-791 binding observed with *in vitro* assays, we evaluated occupancy after four days of QD oral administration of PIPE-791.

PIPE-791 dose-dependently inhibited radioligand binding with an ED_{50} of 0.03 mg/kg. The corresponding plasma EC_{50} and EC_{90} were determined to be 9 ng/mL (19 nM) and 31 ng/mL (65 nM), respectively. Correcting for plasma protein binding in rodent (96.6%), the resulting unbound EC_{50} is estimated to be 0.7 nM. We use these data to understand PK and therapeutic human dosing implications.

The following figures show PIPE-791 CNS receptor occupancy, including receptor occupancy versus oral dose (left figure) and receptor occupancy versus PIPE-791 plasma concentration (right figure).

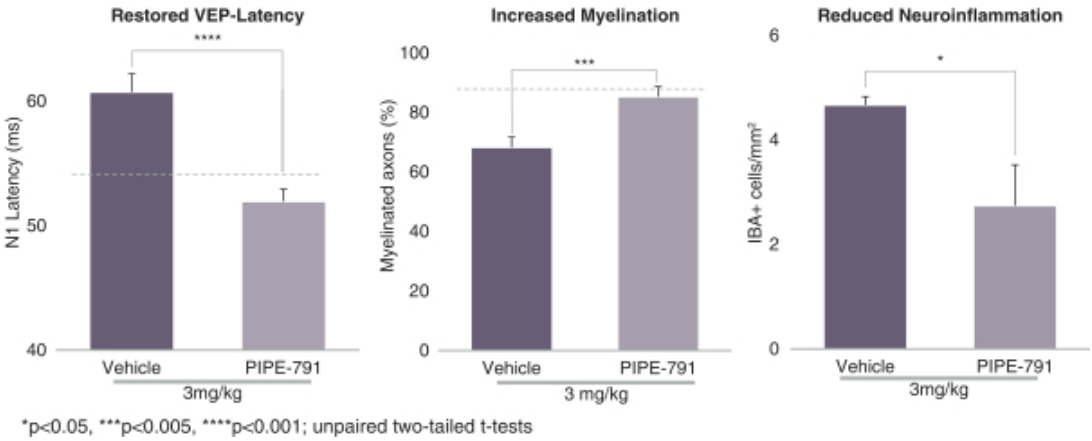


PIPE-791 Promotes Remyelination, Restores VEP Latency, and Reduces Neuroinflammation in In Vivo MS Rodent Model

We demonstrate the ability of PIPE-791 to promote remyelination, inhibit neuroinflammation, and restore neuronal function *in vivo* in a rodent experimental autoimmune encephalomyelitis (EAE) model of inflammatory demyelination, a model in which the interaction between a variety of immunopathological and neuropathological mechanisms leads to an approximation of the key pathological features of MS: inflammation, demyelination, and axonal loss. We immunized rodents with a peptide corresponding to an epitope on myelin oligodendrocyte glycoprotein (MOG).

After approximately nine days, rodents developed EAE followed by motor impairment. Treatment of these rodents with 3 mg/kg of PIPE-791 led to a statistically significant increase in the percentage of myelinated axons in the optic nerve versus vehicle treated rodents ($p<0.005$; unpaired t-test). PIPE-791 treatment also led to a restoration in VEP latency ($p<0.001$; unpaired t-test). Further, PIPE-791 reduced neuroinflammation as determined by a decrease in IBA1+ cells ($p<0.05$; unpaired t-test).

The following figures show that PIPE-791 led to statistically significant improvements in the MOG EAE model as measured by VEP latency, axonal myelination, and reduced neuroinflammation.



*p<0.05, ***p<0.005, ****p<0.001; unpaired two-tailed t-tests

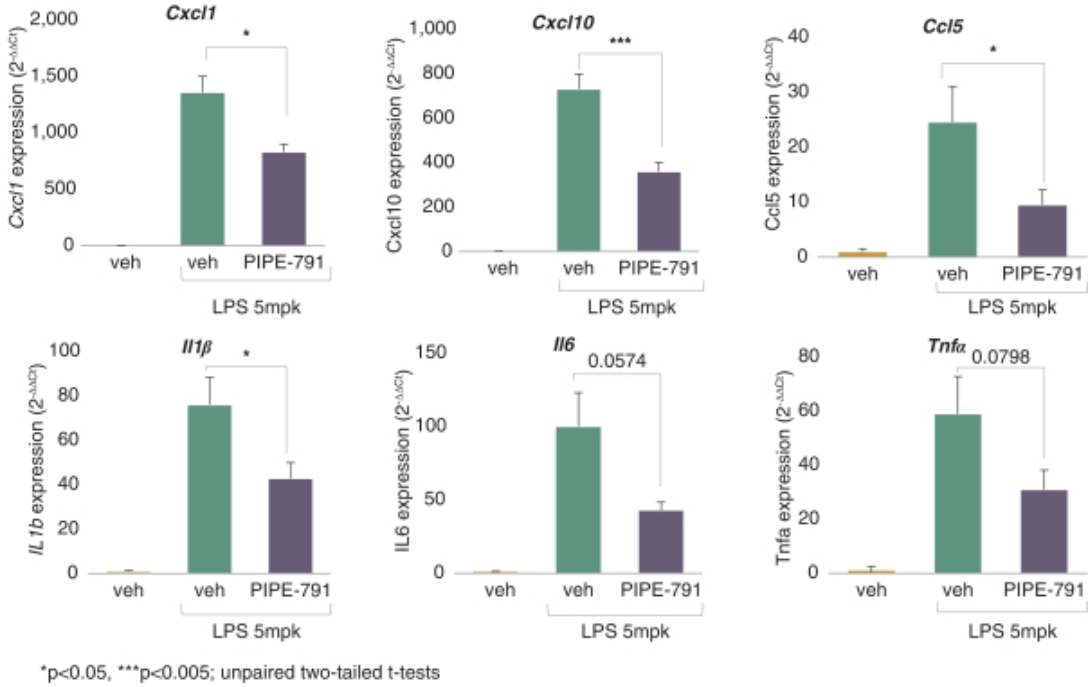
In Vivo LPS-Induced Neuroinflammation Model

In addition to the EAE model results described above, we have also demonstrated the ability of PIPE-791 to reduce neuroinflammation in a rodent LPS challenge model.

We administered a single oral dose of PIPE-791 to rodents at 3 mg/kg two hours prior to an injection of LPS. Two hours later, we dissected forebrains and measured cytokine levels by quantitative PCR to assess neuroinflammation.

LPS induced expression of a broad range of neuroinflammatory cytokines including chemokines (C*xcl1*, C*xcl10*, C*cl5*), interleukins (I*l1*b, I*IL6*), and interferons (T*nf*a). PIPE-791 significantly reduced expression of C*xcl1*, C*xcl10*, C*cl5* and I*l1*b ($p<0.05$; unpaired t-tests). I*l6* and T*nf*a expressions were also reduced, however statistical significance was not reached.

The following figures show the reduction of PIPE-791 on LPS induced CNS cytokine expression.



*p<0.05, ***p<0.005; unpaired two-tailed t-tests

Clinical Development Plan of PIPE-791 in Progressive MS

Based on the favorable safety results from our recently completed Phase 1 healthy volunteer trial, we plan to submit a CTA to the MHRA in 2024 to commence a single-center Phase 1b open-label trial of PIPE-791 in Progressive MS to measure the relationship of PK and brain receptor occupancy by PET imaging. We will design this trial to inform dose selection for a planned future Phase 2 trial in Progressive MS. We expect to submit an IND to the FDA to support the planned Phase 2 trial in Progressive MS in 2025 following completion of the planned six-month rodent and nine-month minipig GLP toxicity studies for PIPE-791. Subject to the FDA's review and authorization of our IND, we plan to commence a proof-of-concept Phase 2 trial of PIPE-791 for Progressive MS to explore evidence of remyelination and reduction in neuroinflammation.

CTX-343

Our CTX-343 Development for Peripheral Fibrotic Disease

Overview of CTX-343 Preclinical *In Vitro* and *In Vivo* Characterization

We based our decision to nominate CTX-343 as a development candidate based on its pharmacodynamic properties assessed in our *in vitro* pharmacology and *in vivo* preclinical studies.

CTX-343 is a Potent LPA1R Antagonist In Vitro

We tested CTX-343 in a competitive membrane filter binding assay using membranes from cells overexpressing human LPA1. We found that CTX-343 bound human LPA1R with low double-digit nanomolar potency with half maximal inhibitory concentration (IC_{50}). We also tested CTX-343 in a functional calcium (Ca^{2+}) mobilization assay using 24-hour pre-incubation periods prior to LPA addition. The IC_{50} was 48.1 nM. Additionally, we screened CTX-343 against 78 targets (Eurofin SAFETYscan) at a concentration of 30 mM with no appreciable activity.

CTX-343 is an Orally Bioavailable and Peripherally-Restricted LPA1R Antagonist In Vivo

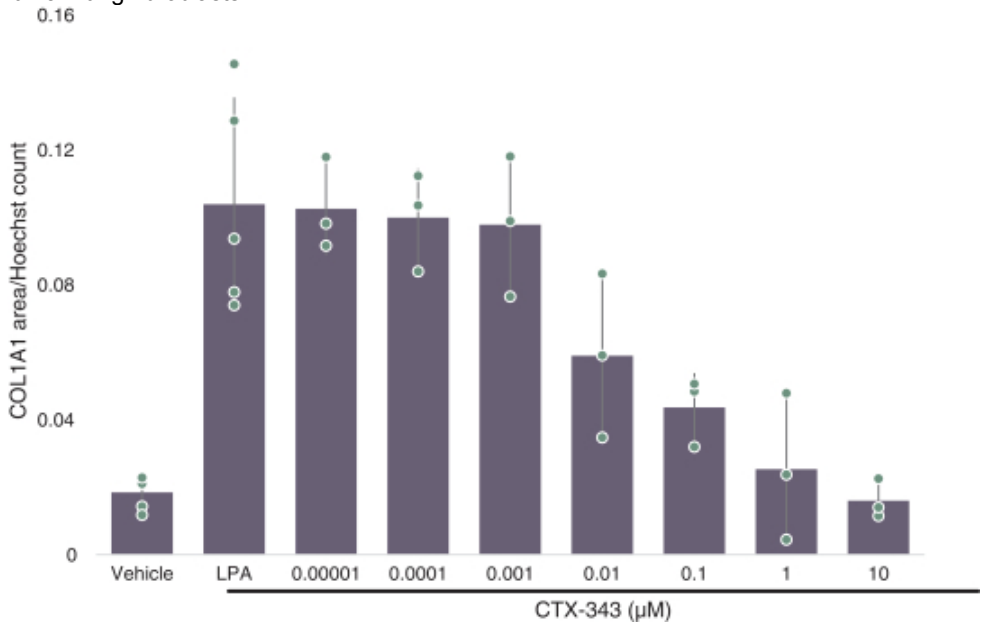
CTX-343, when administered orally to Sprague-Dawley rats, exhibited a high oral bioavailability of 105% and a low plasma-protein corrected intrinsic clearance from plasma of 14.9 mL/min/kg. We also determined that CTX-343 was peripherally-restricted, with an unbound brain to unbound plasma partitioning coefficient ($K_{p,uu}$) of 0.05.

The following table provides a summary of CTX-343's *in vitro* radioligand binding and Ca^{2+} mobilization profile, as well as its *in vivo* unbound brain to unbound plasma partitioning coefficient.

Properties	***Profile***
Radioligand binding K_i (nM)	5.56 (IC_{50}: 19.5)
K_{off} (min^{-1})	0.00036
Functional LPA1 Ca^{2+} mobilization (nM)	48.1
Rodent $K_{p,uu}$ @ 2 h	0.05

CTX-343 Inhibits LPA1-Induced Fibroblast Collagen Production In Vitro

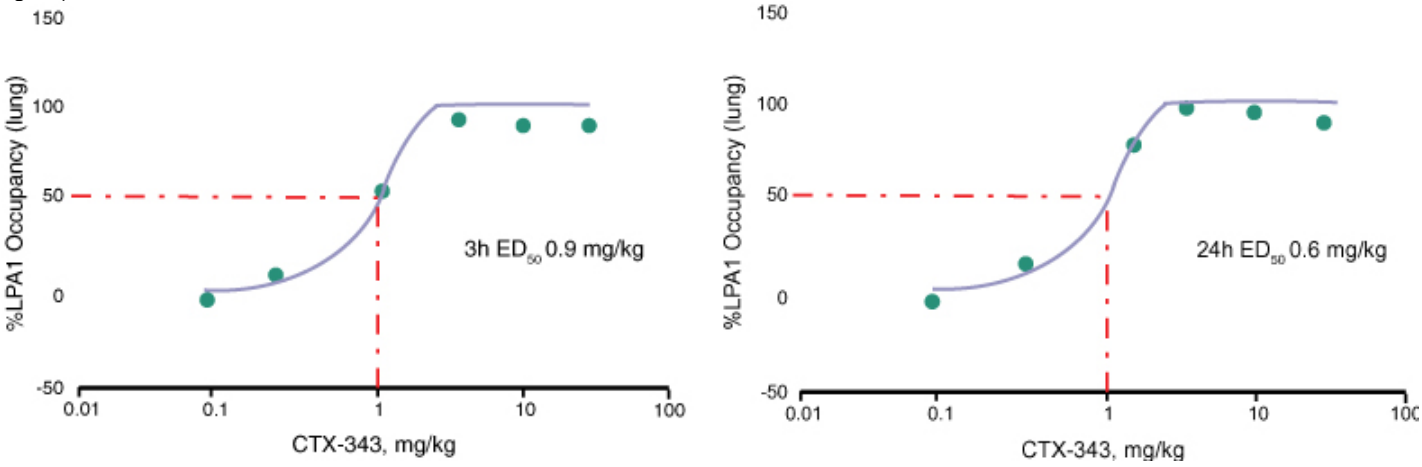
The addition of LPA to fibroblasts results in an increase in collagen production. In a collagen induction assay, CTX-343 inhibited LPA-induced COL1A1 in primary human lung fibroblasts at an IC_{50} of 10.2 nM. The following figure shows CTX-343 inhibits LPA1-induced collagen production in human lung fibroblasts.



CTX-343 In Vivo Lung LPA1R Occupancy

We evaluated the in vivo receptor occupancy of CTX-343 in mouse, three- and 24-hours after a single oral dose. We demonstrated that CTX-343 dose-dependently inhibits radioligand binding with a half maximal dosing effect (ED_{50}) of 0.9 and 0.6 mg/kg at three- and 24-hours post oral dosing, respectively.

The following figure provides CTX-343's lung receptor occupancy versus oral dose at three hours (left figure) and 24 hours (right figure).



Preclinical Assessment of CTX-343 for Risk of Cholestatic Hepatotoxicity

We evaluated the potential of CTX-343 to elicit general and cholestatic hepatotoxicity in vitro in a Sandwich-Cultured Human Hepatocyte (SCHH) assay. At a concentration of 100 mM, there was a notable absence of any toxicity signal.

Clinical Development Plan of CTX-343 for Peripheral Fibrotic Disease

We intend to conduct additional preclinical studies to support selection of a clinical indication for CTX-343. Thereafter, subject to successful IND-enabling activities, we plan to file an IND with the FDA for CTX-343 in 2025 and, pending authorization, we plan to initiate a Phase 1 trial of CTX-343 in healthy volunteers that same year.

PIPE-307

PIPE-307 is a novel, small molecule, selective inhibitor of M1R that we are developing in collaboration with J&J for the potential treatment of depression and RRMS. We have completed two Phase 1 trials of PIPE-307 in healthy volunteers, 1) a Phase 1 SAD/MAD trial, and 2) a Phase 1 PET trial. The results of these Phase 1 trials, which support future clinical development of PIPE-307 for both depression and RRMS, are summarized below. We have received IND clearance from the FDA to conduct a Phase 2 trial in RRMS.

In February 2023, we entered into the J&J License Agreement, under which we granted J&J an exclusive, worldwide license to develop, manufacture and commercialize PIPE-307 in all indications. We are conducting a Phase 2 trial of PIPE-307 for the potential treatment of RRMS, which initiated in November 2023. In addition, we have an opt-in right to fund a portion of all Phase 3 development costs in return for an increase in royalty rates by one to two percentage points. PIPE-307 is also in development for the potential treatment of depression, for which J&J plans to initiate a Phase 2 trial in 2024.

PIPE-307 for the Potential Treatment of Depression

Disease Background

Depression is one of the most common mood disorders with approximately 280 million people globally and nearly 20% of U.S. adults suffering from the disorder. Depression is associated with significant neuropsychiatric disability and increased mortality risk and is characterized by persistently low or depressed mood, anhedonia or decreased interest in pleasurable activities, feelings of guilt or worthlessness, lack of energy, poor concentration, appetite changes, psychomotor retardation or agitation, sleep disturbances, intense euphoria, high energy, uncontrolled impulsive behaviors or suicidal thoughts or a combination of these.

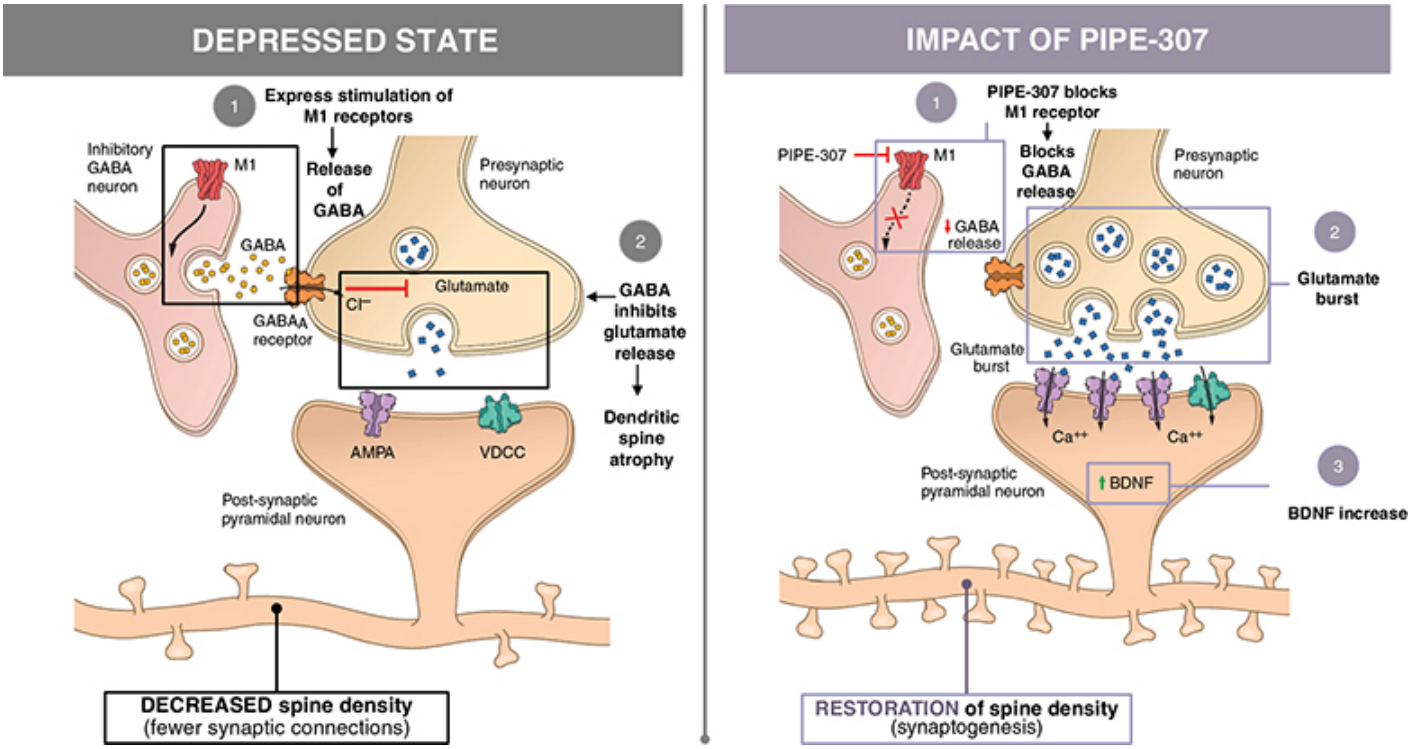
Current Approved Therapies

Despite numerous approved treatments, there remains a significant unmet medical need in the treatment of depression. Currently approved therapies include antidepressant drugs such as selective serotonin reuptake inhibitors, serotonin and norepinephrine reuptake inhibitors, antipsychotics and mood stabilizers. It is well recognized that many patients will fail to respond to current therapies and, in many cases, these treatments are partially effective or not effective at all. Further, patients treated with these therapies often experience pronounced side effects, such as weight gain, sexual dysfunction, gastrointestinal issues and emotional blunting.

Scientific Rationale for M1R Antagonism in Depression

The cholinergic neurotransmitter system was first implicated in the pathophysiology of depression in the early 1970s. Centrally active anticholinergic drugs, such as those used to treat Parkinson's disease, have been reported to cause feelings of euphoria with a sense of well-being, and treatment with non-selective muscarinic antagonists blocked the depressive effects of physostigmine. More recently, repeated treatment with intravenous scopolamine resulted in rapid and robust antidepressant responses in patients with MDD and BPD. The non-specific anti-cholinergic properties of scopolamine lead to tolerability issues that are contraindicative in the setting of depression. In addition, two small studies found efficacy of adjunctive oral scopolamine compared to placebo when added to citalopram or naltrexone for the treatment of MDD. Combined, these data suggest that anticholinergic drugs may be useful as a treatment for mood disorders. Although scopolamine is a non-selective antagonist of all five muscarinic receptors (M1 through M5), its antidepressive effects are mediated by the M1R isoform as evidenced by gene knockout and pharmacological data. The proposed mechanism involves M1R-dependent synaptogenesis in pyramidal neurons in the prefrontal cortex. This effect is directed by blocking M1Rs located on inhibitory GABA neurons which, in turn, promotes excitatory transmission leading to increased brain-derived neurotrophic factor (BDNF) release and dendritic spine formation.

The following figure shows the proposed mechanism of action and resulting action of PIPE-307 in depression.



PIPE-307 for the Potential Treatment of RRMS

We are also developing, in collaboration with J&J, PIPE-307 for the potential treatment of RRMS, the most common form of MS. While there are numerous treatments indicated for RRMS, none directly address the therapeutic goal of supporting remyelination. We believe that PIPE-307 has the potential to address one of the leading causes of long-term neurodegeneration by promoting remyelination. Based on the results of preclinical studies, as well as clinical proof-of-concept established in a Phase 2 trial performed by a third party with clemastine, we believe there is a strong rationale for clinical development of PIPE-307 in RRMS.

Disease Background

MS is a chronic, immune mediated disease of the CNS characterized by demyelination and neuroinflammation which ultimately result in axonal loss and clinical disability. Effective treatments for the progressive neurodegeneration in MS remain one of the largest unmet needs for the nearly 1 million patients in the United States and estimated 2.8 million globally living with this disorder in 2020.

RRMS comprises roughly 85% of newly diagnosed MS patients. The clinical course is marked by relapses and remissions with generally no significant progression between relapses. While current treatments for RRMS patients focus on suppressing the immune system to limit inflammation and further loss of the myelin sheath, there are no approved therapies that effectively or directly promote remyelination to mitigate the progressive disability associated with chronic demyelination.

Current Approved Therapies

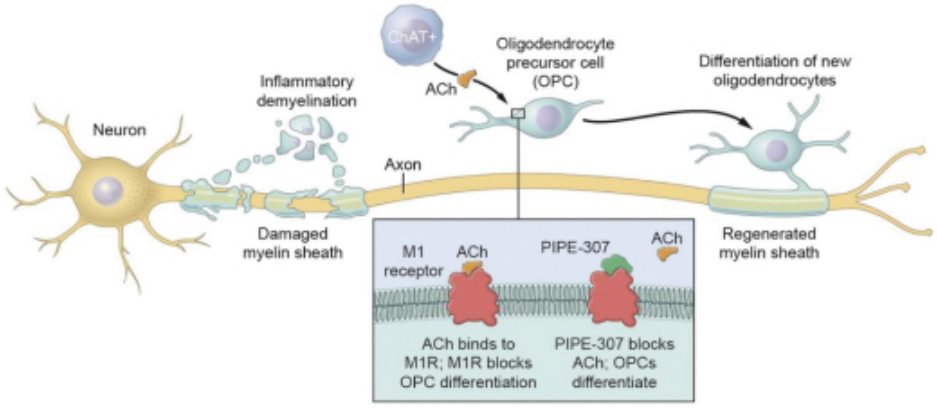
The FDA has approved over twenty DMTs that suppress inflammatory injury and decrease the rate of annual relapses. However, none of these approved therapies, to our knowledge, directly remyelinate nerve fibers or avert neuronal degeneration and disability related to chronic demyelination. We believe that remyelination will address one of the primary pathological aspects of MS that is not addressed by immune-modulatory therapies.

Scientific Rationale for Remyelination and M1R Antagonism in RRMS

Remyelination has been proposed as one of the most promising approaches to prevent accumulating permanent disability in demyelinating diseases such as MS. Remyelination may even reverse the progressive disability associated with axonal dysfunction that occurs secondary to chronic demyelination.

A key disease hallmark in RRMS is reduced remyelination capacity, and molecular pathways that mediate myelination have long been considered promising therapeutic targets. A third party initially noted the remyelinating potential of antimuscarinic compounds as part of an extensive drug screening investigation using a proprietary micropillar platform. The drug screening identified clemastine, an FDA-approved H1 antihistamine and antimuscarinic compound, as a potential candidate to support remyelination. Clemastine was shown to enhance myelination in a rodent EAE model based on a high affinity for the muscarinic receptors, and M1R was ultimately identified as the molecular target for clemastine in OPCs. Clemastine was subsequently evaluated in a double-blind, randomized, placebo-controlled crossover Phase 2 trial in patients with RRMS, referred to as the ReBuild trial. The ReBuild trial results provided the first evidence of remyelination based on improvement in VEP latency. An associated trend for improvement in a visual measure related to contrast sensitivity was also observed consistent with a treatment effect of remyelination. The measure, referred to as low contrast visual acuity, is known to be impaired in MS patients as compared to age-matched healthy controls. Unfortunately, the side effect profile related to the blocking of the H1 receptor by clemastine prevents further dose escalation studies due to the narrow therapeutic window.

We believe that the results of this Phase 2 trial demonstrate proof-of-concept for M1R antagonism and remyelination in RRMS patients. The following figure shows the proposed mechanism of action and resulting action of PIPE-307 in RRMS.



Summary of PIPE-307 Completed Phase 1 Healthy Volunteer Trials to Support Development in Depression and RRMS

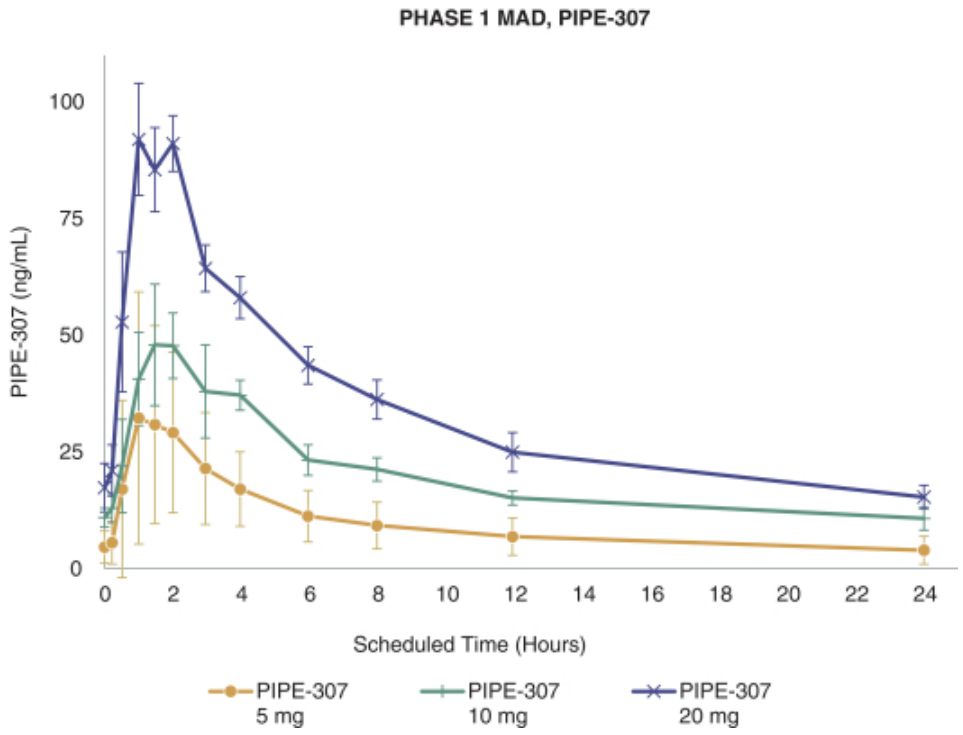
Phase 1 Healthy Volunteer SAD and MAD Trial

We have conducted a Phase 1, randomized, double-blind, placebo-controlled, safety, tolerability, and PK trial of escalating single and multiple doses of PIPE-307 and the effect of food in healthy volunteers. The study included six planned SAD cohorts (up to 80 mg of single doses of PIPE-307) and three planned MAD cohorts (up to 20 mg of PIPE-307 QD for seven days). All SAD and MAD cohorts were completed as planned with no discontinuations. The primary objective of the trial was to assess the safety and tolerability of single and repeat oral doses of PIPE-307 in healthy volunteer subjects. The secondary objective of the trial was to assess the single and repeat dose plasma PK profile of PIPE-307. The trial met the primary and secondary objectives.

TEAEs in both the SAD and MAD components of the Phase 1 trial were generally categorized as mild and transient. There was no clinically significant difference in the AE profile of PIPE-307 between the fasted and fed conditions. No serious or severe AEs were reported among the subjects who received PIPE-307, and no clinically significant effects of PIPE-307 were observed on safety laboratory tests, vital signs, or electrocardiogram. In summary, no dose-limiting AEs or toxicities were observed in the SAD or MAD components of this Phase 1 trial.

We assessed cognitive measures of psychomotor function, attention, memory, and executive function at key PK time points during the SAD and MAD cohorts of this Phase 1 trial. We did not observe evidence of any negative effect of PIPE-307 on aspects of higher cognitive function.

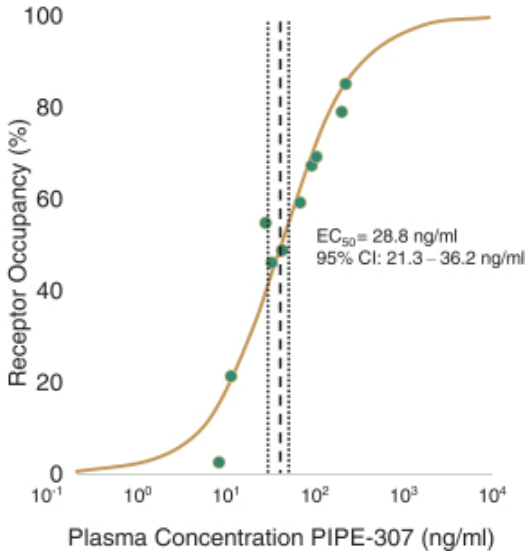
The following figure shows the plasma concentration time profile of the three MAD cohorts after the seventh and final dose of PIPE-307.



Phase 1 Healthy Volunteer PET Trial

We conducted an open-label Phase 1 trial to assess brain receptor occupancy by PET imaging in healthy volunteers after a single oral dose of PIPE-307. The primary objective was to determine the brain M1AChR occupancy using [^{11}C] PIPE-307 PET imaging following a single oral dose of PIPE-307. The secondary objective was to determine the relationship between the plasma concentration of PIPE-307 and the time-course of M1AChR occupancy using [^{11}C] PIPE-307 PET imaging, following a single oral dose of PIPE-307. The trial met the primary and secondary objectives. The trial included three dose cohorts (two subjects in each cohort) at 10, 20 and 40 mg. No safety concerns were observed with the single doses administered in this trial. The PET kinetics demonstrated robust quantification and established the estimated human EC_{50} of 28.8 ng/mL (95% confidence interval (CI): 21.3-36.2 ng/ml) consistent with a daily PIPE-307 dose range of 10 to 20 mg.

The following figure shows plasma concentrations and brain M1R occupancy following single doses of 10, 20, and 40 mg of PIPE-307.



PIPE-307 Completed Preclinical Studies to Support Development in Depression and RRMS

Summary of PIPE-307 Preclinical Toxicity Studies

The toxicity and safety pharmacology profiles of PIPE-307 have been evaluated in a comprehensive nonclinical program. The pivotal toxicology studies were performed in rodents and dogs and consisted of up to six and nine months, respectively, of daily oral dosing with recovery as appropriate. In addition, GLP safety pharmacology studies in rodents and dogs that evaluated cardiovascular (CV), respiratory, and CNS function were performed as well as embryo-fetal development studies in rodents and rabbits.

PIPE-307 Activity Against M1R In Vitro

We evaluated PIPE-307 for potency and selectivity using Ca^{2+} mobilization in cells overexpressing each individual receptor M1 through M5. PIPE-307 potently inhibited acetylcholine induced Ca^{2+} mobilization with an IC_{50} of 3.8 nM. In counter screens, PIPE-307 displayed more than 25-fold functional selectivity against the other muscarinic isoforms.

The following table shows PIPE-307 *in vitro* selectivity profile in Ca^{2+} mobilization assays across the various human muscarinic isoforms.

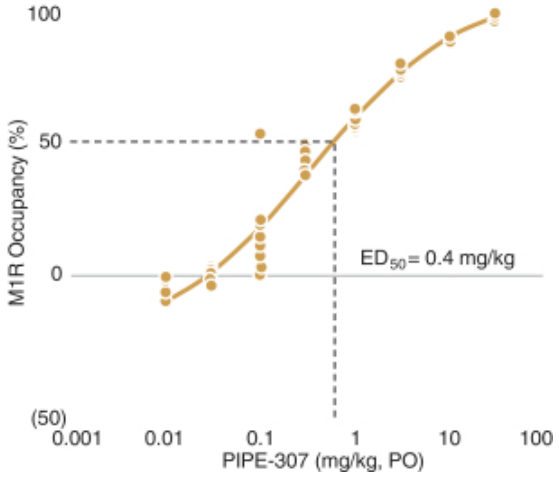
Properties Receptor (human)	***In vitro Profile***				
	M1R	**M2R**	**M3R**	**M4R**	**M5R**
Functional Ca^{2+} mobilization IC_{50} (nM)	3.8	1,600	210	110	3,600
Fold selectivity vs. M1R	-	420x	55x	29x	950x

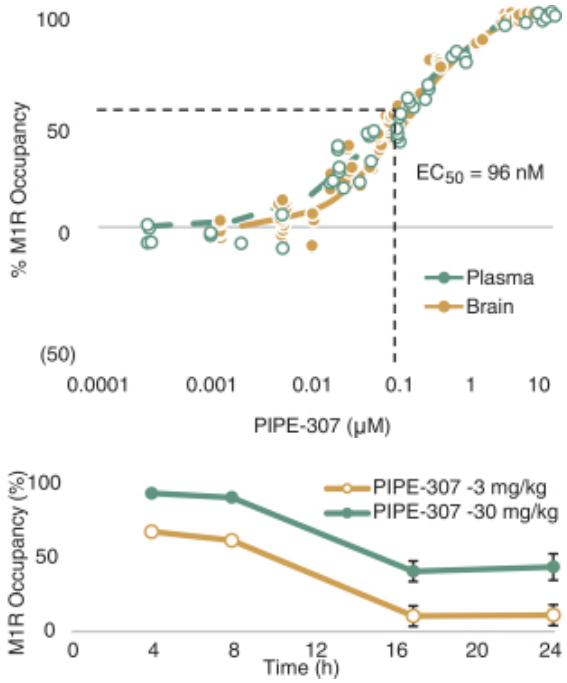
PIPE-307 In Vivo M1R Occupancy

We conducted an *in vivo* receptor occupancy study to characterize the binding of PIPE-307 to M1Rs in the brain. We conducted competition experiments using [^{3}H]-PIPE-307 as a radiotracer *in vivo*. We demonstrated dose-dependent M1R occupancy of PIPE-307 *in vivo* with an ED_{50} of 0.4 mg/kg. We determined that both the resulting total plasma and brain EC_{50} were 96 nM, which is consistent with a brain-to-plasma ratio of one. Correcting for protein binding (91.2% rodent plasma protein binding), the unbound plasma EC_{50} for PIPE-307 was calculated to be 9 nM.

We then conducted time course studies using 3 and 30 mg/kg doses with the brains harvested two to 24 hours post-dose. At 3 mg/kg, ≥ 60% M1R occupancy was achieved for at least eight hours and declined to ≤ 10% occupancy by 17 hours. At the 30 mg/kg dose, greater than 90% occupancy of the M1R was maintained for at least eight hours dropping to 40% at 17 and 24 hours. By extrapolation, ≥ 50% occupancy was maintained for approximately 16 hours.

The following figures show the *in vivo* receptor occupancy profile of PIPE-307, including M1R occupancy of individual subjects plotted as a function dose (top figure), M1R occupancy of individual subjects plotted as a function of plasma and brain PIPE-307 concentrations (middle figure) and time course data following a single oral dose of 3mg/kg and 30mg/kg, plotted as M1R occupancy percentage (bottom figure).





PIPE-307 Development in Depression

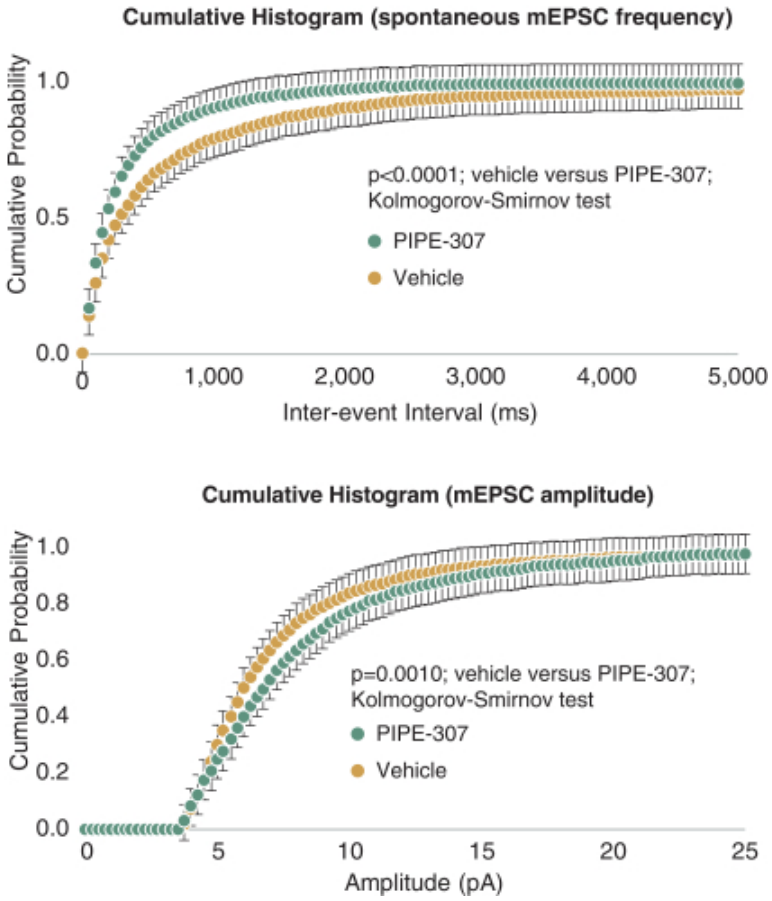
Overview of PIPE-307 Preclinical Proof-of-Concept Studies

PIPE-307 is a novel, small molecule, selective inhibitor of M1R. PIPE-307 has been demonstrated to bind with high affinity to the M1R with pronounced selectivity as compared to other muscarinic receptors when tested in cells overexpressing each receptor. In our preclinical studies of PIPE-307, we observed increased mEPSC amplitude, and increased presynaptic release events in the mPFC 24 hours after dosage. Further, PIPE-307 improved depression-like behaviors in the PST.

PIPE-307 Enhances mEPSCs Ex Vivo

As a measure of synaptic plasticity and synaptic transmission, we assessed the mPFC in rodents following a single oral administration of PIPE-307 at 30 mg/kg using *ex vivo* brain slice electrophysiology. PIPE-307 enhanced synaptic transmission, increasing both presynaptic release events and mEPSC amplitude.

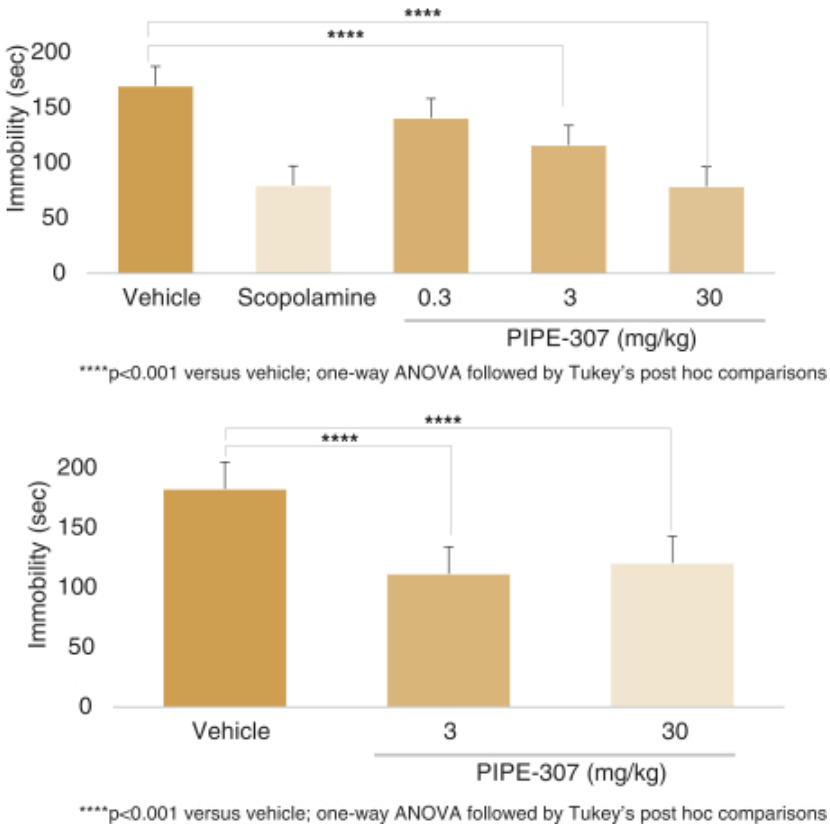
The following figures show the electrophysiological analysis of synaptic transmission, including that PIPE-307 enhances spontaneous mEPSC frequency suggesting presynaptic involvement (top figure) and that PIPE-307 enhances postsynaptic mEPSC amplitude (bottom figure).



In Vivo Depression Model

We evaluated the effects of PIPE-307 on depression-related parameters in rodents in the PST using either a single oral dosing paradigm or seven-day QD dosing paradigm. In the first paradigm, we administered PIPE-307 in rodents orally at 0.3, 3, or 30 mg/kg two hours prior to the PST. We then used scopolamine as positive control, which was administered at a dose of 3 mg/kg by intraperitoneal injection. In the second paradigm, we administered vehicle or PIPE-307 in rodents orally at 3 or 30 mg/kg/day for seven days, with the PST conducted at two hours post-final dose. We observed that administering a single oral dose of PIPE-307 two hours prior to the PST reduced immobility time compared to vehicle in a dose-dependent manner. Following repeated QD oral administration of PIPE-307 for seven days, the efficacy of the 30 mg/kg/day dose was comparable to that observed following a single dose however, the efficacy of the 3 mg/kg/day dose was improved to a level similar to that of the 30 mg/kg/day dose.

The following figures show PIPE-307 effective in rodent PST, including single dose paradigm (top figure) and seven-day QD dosing paradigm (bottom figure).



Clinical Development Plan of PIPE-307 in Depression

J&J plans to initiate a Phase 2 trial in depression in 2024.

PIPE-307 Development in RRMS

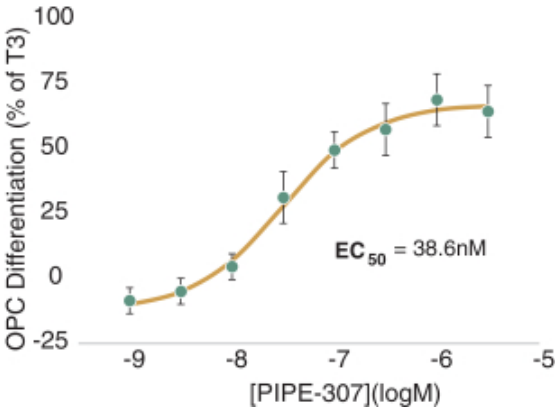
Overview of PIPE-307 Preclinical Proof-of-Concept Studies

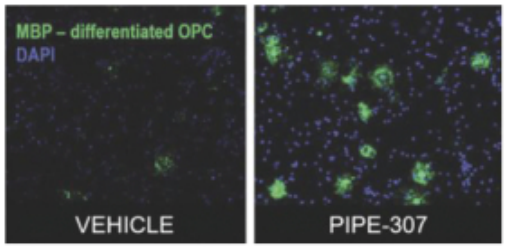
PIPE-307 shows strong potential to remyelinate in both *in vitro* and *in vivo* preclinical studies. In our *in vitro* studies we have demonstrated that PIPE-307 promotes differentiation of OPCs and increases myelin-membrane wrapping in cell culture assays and rodent brain slices. At dose levels that occupy the M1R at EC_{50}, PIPE-307 has been shown to result in significant remyelination in the EAE model with associated functional improvement in motor recovery and VEP latency.

PIPE-307 Induces OPC Maturation in In Vitro Rodent and Human Culture Assays

We determined whether blockade of M1R in primary rodent OPC cultures with PIPE-307 could promote OPC differentiation into oligodendrocytes. Upon blockade of M1R in OPCs with PIPE-307, we observed a concentration dependent increase in the number of MBP+ oligodendrocytes with an EC_{50} of 38.6 nM, and efficacy comparable to that of T3 (triiodothyronine), a commonly used positive control.

The following figure shows that PIPE-307 led to induction of OPC maturation in cell culture as seen by immunostaining for MBP.

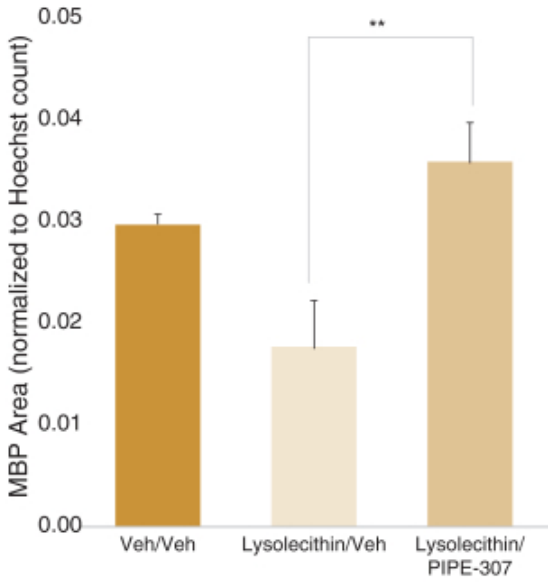


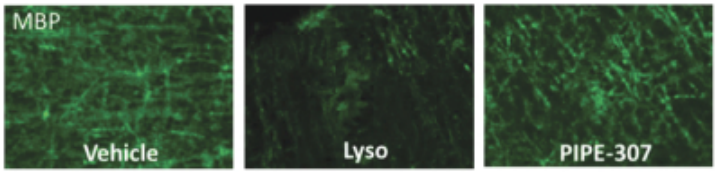


MBP Induction in In Vitro Rodent Organotypic Slice Assay

To characterize the effects of PIPE-307 on remyelination we completed an *ex vivo* study using rodent cultured brain slices treated with lysolecithin (Lyso) to induce demyelination. Slices treated with PIPE-307 after Lyso insult showed an increase MBP protein suggesting remyelination.

The following figures show that PIPE 307 induces MBP protein expression following Lyso induced demyelination in *ex vivo* rodent brain slices.

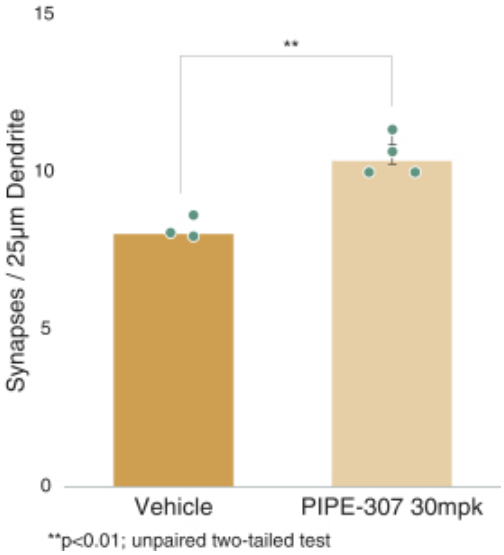


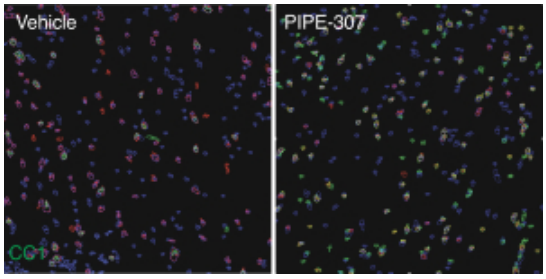


PIPE-307 Increases OPC Maturation in Human Brain Tissue In Vitro

We evaluated PIPE-307 in human brain tissue using fresh human cortex from a 66-year-old female donor (gray and white matter). Treatment of the tissue with 300nM PIPE-307 for nine days revealed an increase in mature oligodendrocytes as determined by an increase in adenomatous polyposis coli, or APC clone 1 positive (CC-1+) cells using immunohistochemical analysis.

The following figures show that PIPE-307 increases the number of CC-1+ mature oligodendrocytes in a human organotypic slice culture assay, demonstrating its role in promoting OPC maturation.

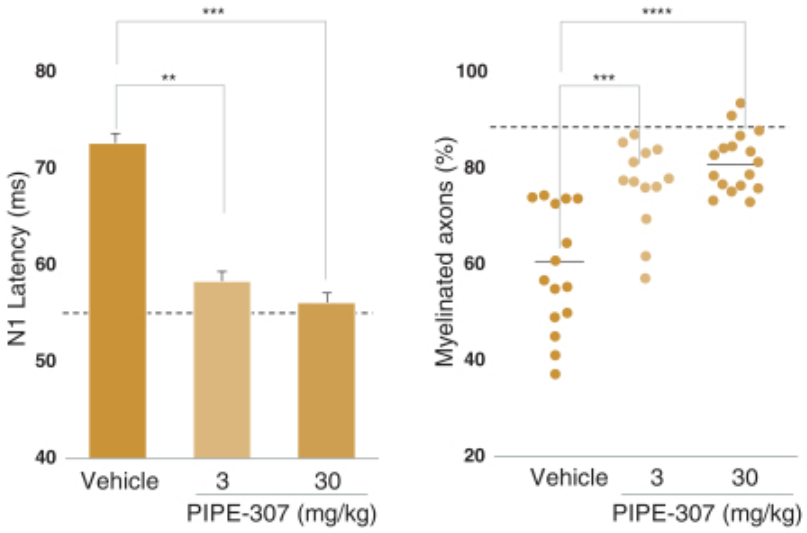




In Vivo MS Models

As described above, we have conducted an *in vivo* M1R study. We tested the ability of PIPE-307 to promote remyelination and to restore neuronal function *in vivo* in a rodent EAE model of inflammatory demyelination. We immunized rodents with a peptide corresponding to an epitope on MOG. After approximately nine days, rodents developed EAE followed by flaccid paralysis along with an increase in VEP N1 latencies. PIPE-307 treatment at doses of 3 mg/kg restored VEP N1 latency and led to a statistically significant increase in the percent of axons in the CNS that were myelinated ($p<0.005$; one-way ANOVA).

The following figure shows that PIPE-307 led to statistically significant improvements in the MOG EAE model as measured by VEP latency and axonal myelination.



**p<0.01, ***p<0.005, ****p<0.001, versus vehicle; one-way ANOVA followed by Tukey's post hoc comparisons

Clinical Development Plan of PIPE-307 for RRMS

In November 2023, we initiated a Phase 2 randomized, double-blind, placebo-controlled, dose-ranging multi-center trial to evaluate the safety and efficacy of oral PIPE-307 as an adjunctive treatment in subjects with RRMS, referred to as the VISTA trial. The primary inclusion criteria are patients aged 18 to 50 years, EDSS of 0 to 6.0 (inclusive), and on stable immunomodulatory treatment over six months prior to screening. The six-month study will enroll approximately 168 subjects into one of three separate arms (1:1:1 randomization ratio, PIPE-307 10 mg: PIPE-307 20 mg: placebo). The co-primary objectives of the trial are to assess the safety of daily oral dosing of PIPE-307, and to assess the effect of six months of PIPE-307 on change in binocular 2.5% low contrast letter acuity (LCLA). The key secondary objectives include LCLA response rate, change in monocular 2.5% LCLA, overall disability as measured by the Multiple Sclerosis Functional Composite (including a timed 25-foot walk test and a 9-hole peg test) and the Symbol Digital Modality Test, MRI measures of myelination (magnetization transfer imaging and diffusion tensor imaging), serum neurofilament light chain, and plasma population PK parameters. We expect to complete enrollment of this Phase 2 trial in 2025.

Our Discovery Pipeline

We plan to further leverage our drug discovery capabilities to build out a franchise with deliberate focus on developing therapeutics that are synergistic with our existing portfolio.

Competition

The biotechnology and pharmaceutical industries are characterized by rapid evolution of technologies, fierce competition and strong defense of intellectual property. While we believe that our platform and our knowledge, experience and scientific resources provide us with competitive advantages, we face competition from major pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions, among others.

If any of the drug candidates we are developing, either alone or in collaboration with J&J, are approved, they will compete with the foregoing therapies and currently marketed drugs, as well as any drugs potentially in development. It is also possible that these drug candidates will face competition from other pharmaceutical approaches as well as other types of therapies. The key competitive factors affecting the success of the drug candidates we are developing, if approved, are likely to be their efficacy, safety, convenience, price, level of generic competition, and availability of reimbursement.

PIPE-791 for IPF

While there is no pharmacological cure for IPF, there are two FDA-approved therapies to treat the disease: pirfenidone (Esbriet, marketed by Genentech/Roche) and nintedanib (Ofev, marketed by Boehringer Ingelheim). We are also aware of LPA1R targeted drug candidates in development for IPF by Bristol-Meyers Squibb, AbbVie Inc., Horizon Therapeutics plc, and Structure Therapeutics Inc. In addition, there are a number of companies developing drug candidates for IPF utilizing approaches with different mechanisms of action, including but not limited to Roche Holding AG, Boehringer Ingelheim, United Therapeutics Corporation, Pliant Therapeutics, RedX Pharma, and Endeavor Biomedicines.

PIPE-791 for Progressive MS

While there are a number of MS medications approved by the FDA for the “active” form of SPMS, no FDA-approved drugs carry a specific indication for Progressive MS. Mitoxantrone (Novantrone®, marketed by Serono) is approved for secondary (chronic) Progressive MS and ocrelizumab (Ocrevus®, marketed by Genentech/Roche) is approved for PPMS.

PIPE-307 for Depression

There are numerous approved therapies for depression, including antidepressant drugs such as selective serotonin reuptake inhibitors, serotonin and norepinephrine reuptake inhibitors, antipsychotics and mood stabilizers. A number of these approved therapies are offered as generics.

PIPE-307 for RRMS

We are aware of over 20 DMTs that suppress inflammatory injury and decrease the rate of annual relapses. However, to our knowledge, none of these approved therapies, including any generics, effectively promote remyelination to mitigate the progressive disability associated with chronic demyelination.

Many of our current or potential competitors, either alone or with their collaboration partners, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals, and marketing approved products than we do. These competitors also compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs. Mergers and acquisitions in the biopharmaceutical industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. Our competitors also may

obtain FDA or other applicable regulatory approval for their products more rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. In addition, our ability to compete may be affected in many cases by insurers or other third-party payors seeking to encourage the use of generic products. There are generic products currently on the market for certain of the indications that we are pursuing and additional products are expected to become available on a generic basis over the coming years. If our drug candidates are approved, we expect that they will be priced at a significant premium over competitive these generic products.

Intellectual property

We strive to protect and enhance the proprietary technology, inventions, trade secrets and know-how that are commercially important for our business, including by seeking, maintaining and defending patent rights, whether developed internally or licensed from third parties. In addition to patent protection, we rely upon unpatented trade secrets and confidential know-how and continuing technological innovation related to our drug candidate programs, clinical translational approach, and drug development efforts. We seek to protect our proprietary information, in part, using confidentiality agreements with any collaborators, scientific advisors, employees and consultants and invention assignment agreements with our employees. We also have agreements requiring assignment of inventions with selected consultants, scientific advisors and collaborators. Our success will depend in part on our ability to obtain and maintain patent protection for our drug candidates and technologies, to preserve our trade secrets, to operate without infringing the proprietary rights of third parties and to acquire licenses related to enabling technology or products.

PIPE-791

The patent portfolio for our PIPE-791 program is based upon our owned patent families that include patent applications directed generally to compositions of matter, pharmaceutical compositions, and methods of using the same to treat neurodegenerative disorders, inflammatory diseases, demyelinating diseases, fibrotic diseases, and cancer; and specifically directed to compositions of matter for PIPE-791, pharmaceutical compositions of PIPE-791 and methods of using the same to treat MS. As of March 14, 2024, we own two patent families covering PIPE-791. The first patent family includes pending applications in U.S., Australia, Brazil, Canada, Chile, Eurasia, Europe, India, Israel, Indonesia, Japan, South Korea, Mexico, Malaysia, New Zealand, Philippines, Singapore and South Africa directed to compositions of matter for PIPE-791, pharmaceutical compositions of PIPE-791 and methods of using the same to treat neurodegenerative disorders, inflammatory diseases, demyelinating diseases, fibrotic diseases, and cancer. The second patent family includes a pending PCT patent application and covers a PIPE-791 polymorph composition of matter and methods of using the same to treat neurodegenerative disorders, inflammatory diseases, demyelinating diseases, fibrotic diseases, and cancer. Any U.S. or ex-U.S. patents that may issue from pending applications in the first patent family are projected to have a statutory expiration date of August 4, 2042, excluding any additional term for patent term adjustments or patent term extensions, if applicable. Any U.S. or ex-U.S. patents that may issue from pending applications in the second patent family are projected to have a statutory expiration date of January 26, 2044, excluding any additional term for patent term adjustments or patent term extensions, if applicable.

PIPE-307

The patent portfolio for our PIPE-307 program is based upon our owned patent families that include patents and patent applications directed generally to compositions of matter, pharmaceutical compositions, and methods of using the same to treat neurodegenerative disorders; and specifically directed to compositions of matter for PIPE-307, pharmaceutical compositions of PIPE-307 and

methods of using the same to treat MS. As of March 14, 2024, we own two patent families covering PIPE-307. The first patent family includes patent applications pending in U.S., Australia, Brazil, Canada, Chile, China, Eurasia, Europe, Hong Kong, India, Israel, Indonesia, Japan, South Korea, Mexico, Malaysia, New Zealand, Philippines, Singapore and South Africa directed to compositions of matter for PIPE-307, pharmaceutical compositions of PIPE-307 and methods of using the same to treat MS. The second patent family includes pending patent applications in U.S., United Arab Emirates, Australia, Bahrain, Brazil, Canada, Chile, China, Colombia, Algeria, Eurasia, Europe, Indonesia, Israel, India, Jordan, Japan, South Korea, Kuwait, Mexico, Malaysia, New Zealand, Oman, Panama, Peru, Philippines, Qatar, Saudi Arabia, Singapore, Thailand, Ukraine, Vietnam and South Africa and covers a PIPE-307 polymorph composition of matter and methods of using the same to treat MS. Any U.S. or ex-U.S. patents that may issue from pending applications in the first patent family are projected to have a statutory expiration date of October 6, 2040, excluding any additional term for patent term adjustments or patent term extensions, if applicable. Any U.S. or ex-U.S. patents that may issue from pending applications in the second patent family are projected to have a statutory expiration date of April 13, 2042, excluding any additional term for patent term adjustments or patent term extensions, if applicable.

Patent Term Extensions

In the United States, the term of a patent covering an FDA-approved drug may, in certain cases, be eligible for a patent term extension under the Hatch-Waxman Act as compensation for the loss of patent term during the FDA regulatory review process. The period of extension may be up to five years, but cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval. Only one patent among those eligible for an extension and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. Similar provisions are available in Europe and in certain other jurisdictions to extend the term of a patent that covers an approved drug. It is possible that issued U.S. patents covering the use of products from our intellectual property may be entitled to patent term extensions. If our use of drug candidates or the drug candidate itself receive FDA approval, we intend to apply for patent term extensions, if available, to extend the term of patents that cover the approved use or drug candidate. We also intend to seek patent term extensions in any jurisdictions where available, however, there is no guarantee that the applicable authorities, including the FDA, will agree with our assessment of whether such extensions should be granted, and, even if granted, the length of such extensions.

License and Collaboration Agreements

J&J License Agreement

In February 2023, we entered into the J&J License Agreement, pursuant to which we granted J&J an exclusive, worldwide license to develop, manufacture and commercialize PIPE-307 in all indications.

J&J is generally responsible for all development, manufacturing and commercialization activities for PIPE-307. Upon J&J deciding to conduct a first Phase 3 clinical trial for a product using PIPE-307, we have an opt-in right to fund a portion of all Phase 3 and subsequent development costs for PIPE-307, with such costs capped annually. If we opt to fund such development costs, then the royalties we are eligible to receive will increase by one to two percentage points.

Consistent with our rights under the J&J License Agreement, we are sponsoring and conducting, at our own expense, a Phase 2 clinical trial of PIPE-307 in patients with RRMS. J&J has the right to discontinue our clinical trial if it has good faith concerns that this study presents safety risks or could have a material adverse effect on its development or commercialization of PIPE-307 and such

concerns cannot be resolved between the parties. In addition, J&J has the right, in its sole discretion, to further develop or to elect not to develop PIPE-307 for this indication.

Pursuant to the terms of the J&J License Agreement, we received an upfront payment of $50.0 million. We are also eligible to receive approximately $1.0 billion in non-refundable, non-creditable milestone payments, pursuant to the terms of the J&J License Agreement. Additionally, we are eligible to receive tiered royalties in the low-double digit to high-teen percent range on net sales of products containing PIPE-307. Separately, we received a $25.0 million equity investment from JJDC.

The J&J License Agreement expires on a licensed product-by-product and country-by-country basis upon the last to occur of: (i) the expiration of the last-to-expire licensed patent claim covering the composition of matter of the licensed compound in such licensed product in such country; (ii) the expiration of exclusive marketing rights conferred by a regulatory authority or applicable law (other than patent exclusivity) for such licensed product in such country; and (iii) ten years after the first commercial sale of such licensed product. Either party may terminate the J&J License Agreement in the event of an uncured material breach by the other party or a bankruptcy or insolvency of the other party. J&J may terminate the J&J License Agreement without cause upon prior written notice to us. Upon any termination, all exclusive license rights granted to J&J terminate.

Manufacturing

Our drug candidates consist of small molecules designed to reactivate innate repair pathways to restore function. As a result, we can rely on the well-established and available manufacturing and drug-delivery technologies developed for small molecules over decades by the pharmaceutical industry. We source our APIs from contract manufacturers with a track record of manufacturing in compliance with cGMP. After quality control testing, we release our APIs to additional contract manufacturers for formulation and packaging into the final drug product for use in our clinical trials. We expect to continue to use contract manufacturing resources for commercialization of our products, at least until our operations reach a scale sufficient to justify investment in internal manufacturing capacity.

Our third-party contract manufacturers and their facilities, as well as the manufacture of our APIs and drug candidates, are required to be in compliance with cGMP requirements. The cGMP requirements govern manufacturing processes and procedures, including requirements relating to organization of personnel, buildings and facilities, equipment, control of components and packaging containers and closures, production and process controls, packaging and labeling controls, holding and distribution, laboratory controls, records and reports, and returned or salvaged products. Drug candidates used in late-stage clinical trials must be manufactured in accordance with cGMP requirements and manufacturing specifications and processes must satisfy FDA or other authorities' requirements before any product is approved and before we can offer commercial products. Our third-party manufacturers are also subject to periodic inspections of facilities by the FDA and other authorities. We have assembled a team of employees and consultants to oversee our technical quality and our third-party contract manufacturers.

Commercialization

In light of our stage of development, we have not yet established a sales and marketing organization or distribution capabilities. If PIPE-791 receives marketing approval, we plan to commercialize PIPE-791 in the United States by developing our own sales and marketing organization targeting neurologists. Outside the United States, we intend to establish commercialization strategies for PIPE-791 as we approach possible commercial approval for this drug candidate, with a primary strategy of collaborations with other companies. J&J is responsible for the commercialization activities for PIPE-307.

Government Regulation

The FDA and comparable regulatory authorities at federal, state and local levels and in other countries impose substantial and burdensome requirements upon companies involved in, among other things, the clinical development, manufacture, marketing, and distribution of drugs, such as those we are developing. These agencies and other federal, state, local, and foreign entities regulate, among other things, the research and development, testing, manufacture, quality control, safety, effectiveness, labeling, packaging, storage, record keeping, approval, advertising and promotion, marketing, distribution, tracking, sale, post-approval monitoring and reporting, sampling, and export and import of our drug candidates. We, along with our vendors, collaboration partners, CROs and CMOs, will be required to navigate the various preclinical, clinical, manufacturing and commercial approval requirements of the governing regulatory agencies of the countries in which we wish to conduct studies or seek approval of our drug candidates. The process of obtaining regulatory approvals of drug products and ensuring subsequent compliance with appropriate federal, state, local, and foreign statutes and regulations requires the expenditure of substantial time and financial resources.

U.S. Drug Development Process

In the United States, the FDA regulates drugs under the FDCA and its implementing regulations. The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local, and foreign statutes and regulations requires the expenditure of substantial time and financial resources. Failure to comply with the applicable U.S. requirements at any time during the product development process, approval process, or after approval, may subject an applicant to a variety of administrative or judicial sanctions, such as the FDA's refusal to approve pending NDAs withdrawal of an approval, imposition of a clinical hold, issuance of warning or untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement, or civil or criminal penalties.

The process required by the FDA before a drug may be marketed in the United States generally involves the following:

- completion of preclinical laboratory tests, animal studies, and formulation studies in compliance with the FDA's GLP regulations;
- submission to the FDA of an IND which must become effective before human clinical trials may begin and must be updated annually or when significant changes are made;
- approval by an independent IRB or independent ethics committee at each clinical trial site before each trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with GCP requirements to establish the safety and efficacy of the proposed drug product for each indication;
- submission to the FDA of an NDA , after completion of all pivotal trials;
- payment of user fees associated with an NDA;
- satisfactory completion of the product application by an FDA advisory committee review, where appropriate and if applicable;
- a determination by the FDA within 60 days of the receipt of an NDA to file the NDA for review;
- satisfactory completion of an FDA inspection of the manufacturing facility or facilities at which the product is produced to assess compliance with cGMP requirements, and to assure that the facilities, methods, and controls are adequate to preserve the drug's identity, strength, quality, and purity, and of selected clinical investigation sites to assess compliance with GCPs;

- potential FDA audit of the preclinical and/or clinical trial sites that generated the data in support of the NDA;
- FDA review and approval of the NDA, including consideration of the views of any FDA advisory committee, prior to commercial marketing or sale of the drug in the United States; and
- compliance with any post-approval requirements, including the potential requirement to implement a REMS or to conduct a post-approval study.

Preclinical Studies

Preclinical studies are required for submission of an IND and include laboratory evaluation of product chemistry, toxicology, PK, pharmacology, pharmacodynamics, and formulation, as well as animal studies to assess potential safety and efficacy. Prior to beginning the first clinical trial with a drug candidate in the United States, an IND must be submitted to the FDA. An IND is a request by a clinical study sponsor for authorization from the FDA to administer an investigational new drug product to humans. The central focus of an IND submission is on the general investigational plan and the protocol(s) for clinical trials. An IND sponsor must submit the results of the preclinical tests, together with manufacturing information, analytical data, and any available clinical data or literature, among other things, to the FDA as part of an IND. Some preclinical testing may continue even after the IND is submitted. An IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions related to one or more proposed clinical trials and places the clinical trial on a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. A clinical hold is an order issued by the FDA to the sponsor to delay a proposed clinical investigation or to suspend an ongoing investigation. A partial clinical hold is a delay or suspension of only part of the clinical work requested under the IND. For example, a specific protocol or part of a protocol is not allowed to proceed, while other protocols may do so. Clinical holds also may be imposed by the FDA at any time before or during clinical trials due to safety concerns about on-going or proposed clinical trials or noncompliance with specific FDA requirements, and the trials may not begin or continue until the FDA notifies the sponsor that the hold has been lifted. As a result, submission of an IND may not result in the FDA allowing clinical trials to commence.

Clinical Trials

Clinical trials involve the administration of the investigational new drug to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include the requirement that all research subjects provide their informed consent for their participation in any clinical trial. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, an IRB at each site participating in the clinical trial must review and approve the plan for any clinical trial and the informed consent form before it commences at that site and must monitor the trial until completed.

An IRB is charged with protecting the welfare and rights of trial participants and assesses issues such as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. Information about certain clinical trials must be submitted within specific time frames to the National Institutes of Health for public dissemination on their www.clinicaltrials.gov website.

Human clinical trials are typically conducted in three sequential phases, which may overlap or be combined:

- **Phase 1**: The drug is initially introduced into healthy human subjects or patients with the target disease or condition and tested for safety, dosage tolerance, absorption, metabolism and distribution of the investigational product in humans, the side effects associated with increasing doses and, if possible, to gain early evidence of its effectiveness. In the case of some products for severe or life-threatening diseases, especially when the product may be too inherently toxic to ethically administer to healthy volunteers, the initial human testing is often conducted in patients with the indicated disease.
- **Phase 2**: The drug is administered to a limited patient population to preliminarily evaluate the efficacy of the product for specific targeted diseases, and to determine dosage tolerance and optimal dosage and to identify possible adverse effects and safety risks. Multiple Phase 2 clinical trials may be conducted to obtain information prior to beginning larger and more expensive Phase 3 clinical trials.
- **Phase 3**: The drug is administered to an expanded patient population, generally at geographically dispersed clinical trial sites, in well-controlled clinical trials to generate enough data to statistically evaluate the efficacy and safety of the product for approval, to establish the overall risk-benefit profile of the product, to provide an adequate basis for product approval, and to further test for safety. Generally, two adequate and well-controlled Phase 3 clinical trials are required by the FDA for approval of an NDA.

Post-approval trials, sometimes referred to as Phase 4 studies, may be conducted after initial marketing approval. These trials are used to gain additional information on the safety, efficacy, or optimal use of the treatment of patients in the approved indication. In certain instances, such as with accelerated approval drugs, the FDA may mandate the performance of Phase 4 trials as a condition of approval of an NDA.

Regulatory authorities, the IRB or the sponsor may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk or that the trial is unlikely to meet its stated objectives. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements or if the drug has been associated with unexpected serious harm to patients. In addition, some clinical trials are overseen by an independent group of qualified experts organized by the sponsor, known as a data safety monitoring board or committee. Depending on its charter, this group may determine whether a trial may move forward at designated check points based on certain data from the trial and may halt the clinical trial if it determines that there is an unacceptable safety risk for subjects or other grounds, such as no demonstration of efficacy.

Concurrent with clinical trials, companies usually complete additional animal studies, and must also develop additional information about the chemistry and physical characteristics of the drug and finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate, and, among other things, the manufacturer must develop methods for testing the identity, strength, quality, and purity of the final drug. In addition, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf life.

Progress reports detailing the results of the clinical trials and nonclinical studies must be submitted to the FDA at least annually. Written IND safety reports must be submitted to the FDA and the investigators within fifteen days after the trial sponsor determines the information qualifies for

reporting for serious and unexpected suspected adverse events, findings from other studies or animal or *in vitro* testing that suggest a significant risk for human volunteers exposed to the product and any clinically important increase in the rate of a serious suspected adverse reaction over that listed in the protocol or investigator brochure. The sponsor must also notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction as soon as possible but in no case later than seven calendar days after the sponsor's initial receipt of the information. Phase 1, Phase 2 and Phase 3 clinical trials may not be completed successfully within any specified period, or at all. There are also requirements governing the reporting of ongoing clinical trials and completed trial results to public registries.

A sponsor may choose, but is not required, to conduct a foreign clinical study under an IND. When a foreign clinical study is conducted under an IND, all IND requirements must be met unless waived. When the foreign clinical study is not conducted under an IND, the sponsor must ensure that the study complies with certain FDA regulatory requirements in order to use the study as support for an IND or application for marketing approval. Specifically, FDA has promulgated regulations governing the acceptance of foreign clinical trials not conducted under an IND, establishing that such studies will be accepted as support for an IND or application for marketing approval if the study was conducted in accordance with GCP, including review and approval by an IEC, and use of proper procedures for obtaining informed consent from subjects, and the FDA is able to validate the data from the study through an on-site inspection if FDA deems such inspection necessary. The GCP requirements encompass both ethical and data integrity standards for clinical studies. The FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical trials, as well as the quality and integrity of the resulting data. They further help ensure that non-IND foreign studies are conducted in a manner comparable to that required for IND studies. If a marketing application is based solely on foreign clinical data, the FDA requires that the foreign data be applicable to the U.S. population and U.S. medical practice; the studies must have been performed by clinical investigators of recognized competence; and the FDA must be able to validate the data through an on-site inspection or other appropriate means, if the FDA deems such an inspection to be necessary.

Marketing Approval

Assuming successful completion of the required clinical testing, the results of the preclinical studies and clinical trials, together with detailed information relating to the product's chemistry, manufacture, controls, and proposed labeling, among other things, are submitted to the FDA as part of an NDA requesting approval to market the product for one or more indications. Data may come from company-sponsored clinical trials intended to test the safety and effectiveness of a use of a product, or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and effectiveness of the investigational drug product to the satisfaction of the FDA. In most cases, the submission of an NDA is subject to a substantial application user fee; a waiver or reduction of such fees may be obtained under certain limited circumstances. Under the Prescription Drug User Fee Act (PDUFA) guidelines that are currently in effect, the FDA has a goal of ten months from the date of "filing" of a standard NDA for a new molecular entity to review and act on the submission. The FDA has approximately two months to make a "filing" decision. Specifically, the FDA conducts a preliminary review of all NDAs within the first 60 days after submission, before accepting them for filing, to determine whether they are sufficiently complete to permit substantive review. The FDA may request additional information rather than accept an NDA for filing. In this event, the application must be resubmitted with the additional information. The resubmitted application is also subject to review before the FDA accepts it for filing. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA reviews an NDA to determine, among other things, whether the drug is safe and effective and whether the facility in which it is manufactured, processed, packaged, or held meets standards designed to assure the product's continued safety, quality, and purity.

The FDA also may require submission of a REMS plan to ensure that the benefits of the drug outweigh its risks. The REMS plan could include medication guides, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries or other risk minimization tools.

The FDA may refer an application for a novel drug to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates, and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more clinical trial sites to assure compliance with GCP requirements.

After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional clinical or preclinical testing in order for the FDA to reconsider the application.

Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

Even if the FDA approves a product, it may limit the approved indications for use of the product, require that contraindications, warnings, or precautions be included in the product labeling, require that post-approval studies, including Phase 4 clinical trials, be conducted to further assess a drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution and use restrictions or other risk management mechanisms under a REMS plan, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

The Pediatric Research Equity Act, as amended (PREA), requires a sponsor to conduct pediatric clinical trials for most drugs, and specifically, for most NDAs or NDA supplements for a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration. Under PREA, original NDAs and supplements must contain a pediatric assessment unless the sponsor has received a deferral or waiver. The required assessment must evaluate the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The sponsor or the FDA may request a deferral or full or partial waiver of pediatric clinical trials for some or all of the pediatric subpopulations. A deferral may be granted for several reasons, including a finding that the drug is ready for approval for use in adults before pediatric clinical trials are complete or that additional safety or effectiveness data needs to be collected before the pediatric clinical trials begin.

The FDA will send a noncompliance letter to any sponsor that fails to submit the required assessment, keep a deferral current, or fails to submit a request for approval of a pediatric formulation.

Orphan Drug Designation and Exclusivity

Under the Orphan Drug Act, the FDA may grant orphan designation to a drug intended to treat a rare disease or condition, which is a disease or condition that affects fewer than 200,000 individuals in the United States, or one that affects more than 200,000 individuals in the United States but for which there is no reasonable expectation that the cost of developing and making a drug available in the United States for this type of disease or condition will be recovered from sales of the product. Orphan designation must be requested before submitting an NDA. After the FDA grants orphan product designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan designation does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product that has orphan drug designation subsequently receives the first FDA approval for a particular active ingredient for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication for seven years, except in limited circumstances, such as a showing of clinical superiority to the product with orphan product exclusivity or if the FDA finds that the holder of the orphan product exclusivity has not shown that it can assure the availability of sufficient quantities of the orphan drug to meet the needs of patients with the disease or condition for which the drug was designated. Orphan product exclusivity does not prevent the FDA from approving a different product for the same disease or condition, or the same product for a different disease or condition. Orphan designation also allows for potential financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages, and user fee waivers.

Orphan exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval of the same drug as defined by the FDA or if our drug candidate is determined to be contained within the competitor's product for the same indication or disease, and we are unable to demonstrate that our product is clinically superior to the competitor product. A designated orphan drug may not receive orphan exclusivity if it is approved for a use that is broader than the indication for which it received orphan designation. In addition, exclusive marketing rights in the United States may be lost if the FDA later determines that the request for designation was materially defective, if the second applicant demonstrates that its product is clinically superior to the approved product with orphan exclusivity or the manufacturer of the approved product is unable to assure sufficient quantities of the product to meet the needs of patients with the rare disease or condition.

FDA-Expedited Development and Review Programs

The FDA has various programs, including fast track designation, accelerated approval, priority review, and breakthrough therapy designation, which are intended to expedite and facilitate the process for the development and the FDA review of drugs that are intended for the treatment of serious or life-threatening diseases or conditions and demonstrate the potential to address unmet medical needs, and to provide patients with access to the drugs more quickly than standard FDA review timelines typically permit.

To be eligible for a fast track designation, the FDA must determine, based on the request of a sponsor, that a product is intended to treat a serious or life-threatening disease or condition and preclinical or clinical data demonstrates the potential to address an unmet medical need. The FDA will determine that a product will fill an unmet medical need if it will provide a therapy where none exists or provide a therapy that may be potentially superior to existing therapy based on efficacy, or safety or

other factors. Fast track designation provides increased opportunities for sponsor interactions with the FDA during preclinical and clinical development. The FDA may also review sections of the NDA for a fast track product on a rolling basis before the complete application is submitted, if the sponsor provides a schedule for the submission of the sections of the NDA, the FDA agrees to accept those sections of the NDA and determines that the schedule is acceptable, and the sponsor pays any required user fees upon submission of the first section of the NDA. If the FDA accepts a portion of an application, this does not necessarily mean that review will commence or proceed before the complete application is submitted. Actual commencement and scheduling of review depends on many factors, including staffing, workload, competing priorities, timeline for completing the application, and the perceived efficiency of commencing review before receipt of the complete submission.

The FDA may give a priority review designation to drugs that, if approved, would provide a significant improvement in safety or effectiveness in the treatment, diagnosis or prevention of a serious disease or condition. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of 10 months under current PDUFA guidelines. These six-and 10-month review periods are measured from the “filing” date rather than the receipt date for NDAs for new molecular entities, which typically adds approximately two months to the timeline for review and decision from the date of submission. Products that are eligible for fast track designation may also be eligible for priority review.

In addition, products studied for their safety and effectiveness in treating serious or life-threatening illnesses and that fulfill an unmet medical need may be eligible for accelerated approval. Such products therefore may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require a sponsor of a drug receiving accelerated approval to perform post-marketing confirmatory studies to verify and describe the predicted effect on irreversible morbidity or mortality or other clinical endpoint, and the drug may be subject to accelerated withdrawal of approval procedures. The FDA may withdraw accelerated approval if, among other things, the confirmatory study fails to verify clinical benefit; the applicant fails to perform required confirmatory studies with due diligence; post-marketing use demonstrates that post-marketing restrictions are inadequate to assure safe use; the applicant fails to adhere to agreed-upon post-marketing restrictions; promotional materials are false or misleading; or, other evidence demonstrates that the product is not shown to be safe or effective under its conditions of use. Additionally, under the FDORA the FDA is now permitted to require, as appropriate, that such trials be underway prior to approval or within a specific time period after the date of approval for a product granted accelerated approval. Under FDORA, the FDA has increased authority for expedited procedures to withdraw approval of a drug or an indication approved if, for example, the confirmatory trial fails to verify the predicted clinical benefit of the product. In addition, the FDA currently requires pre-approval of promotional materials as a condition for accelerated approval, which could adversely impact the timing of the commercial launch of the product. Drugs granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

Sponsors can also request designation of a drug candidate as a “breakthrough therapy.” A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. A drug that receives breakthrough therapy designation is eligible for certain FDA actions as appropriate, such as holding timely meetings and providing advice, intended to expedite the

development and review of an application for approval of a breakthrough therapy. The designation includes all the benefits of a fast track designation in addition to intensive guidance on an efficient drug development program beginning as early as Phase 1, and FDA organizational commitment to expedited development, including involvement of senior managers and experienced review staff in a cross-disciplinary review, where appropriate. The breakthrough therapy designation is a distinct status from both accelerated approval and priority review, which can also be granted to the same drug if relevant criteria are met.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decide that the time period for FDA review or approval will not be shortened. Furthermore, fast track designation, accelerated approval, priority review, and breakthrough therapy designation do not change the standards for approval but may expedite the development or review process. We may explore some of these opportunities for our drug candidates as appropriate.

Post-Approval Requirements

Drugs manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion, and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing, annual program fee requirements for certain eligible products.

The FDA may impose a number of post-approval requirements as a condition of approval of an NDA. For example, the FDA may require post-marketing testing, including Phase 4 clinical trials, and surveillance to further assess and monitor the product's safety and effectiveness after commercialization. Discovery of previously unknown problems with a product or the failure to comply with applicable FDA requirements can have negative consequences, including adverse publicity, judicial or administrative enforcement, warning letters from the FDA, mandated corrective advertising or communications with doctors, and civil or criminal penalties, among others. Newly discovered or developed safety or effectiveness data may require changes to a product's approved labeling, including the addition of new warnings and contraindications, and also may require the implementation of other risk management measures.

In addition, drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are required to register their establishments with the FDA and state and local agencies and are subject to periodic unannounced inspections by government agencies for compliance with cGMP and other requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP requirements and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in mandatory revisions to the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition

of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- safety alerts, Dear Healthcare Provider letters, press releases, or other communications containing warning or other safety information about the product;
- fines, warning letters, untitled letters, or holds on clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- injunctions or the imposition of civil or criminal penalties;
- consent decrees, corporate integrity agreements, debarment or exclusion from federal healthcare programs; or
- mandated modification of promotional materials and labeling and issuance of corrective information.

The FDA strictly regulates marketing, labeling, advertising, and promotion of products that are placed on the market. Drugs may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability, including adverse publicity, untitled or warning letters, requirements to conduct corrective advertising and potential civil and criminal penalties. Physicians may prescribe, in their independent professional medical judgment, legally available products for uses that are not described in the product's labeling and that differ from those tested by us and approved by the FDA. Physicians may believe that such off-label uses are the best treatment for many patients in varied circumstances. The FDA does not regulate physicians in their practice of medicine, including their choices of treatments for their patients. The FDA does, however, restrict drug manufacturer's communications on the subject of off-label use of their products. The federal government has levied large civil and criminal fines against companies for alleged improper promotion of off-label use and has enjoined companies from engaging in off-label promotion. The FDA and other regulatory agencies have also required that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed. However, companies may share certain truthful and non-misleading information that is otherwise consistent with a product's FDA-approved labeling.

In addition, the distribution of prescription pharmaceutical products is subject to the Prescription Drug Marketing Act, as amended (PDMA), which regulates the distribution of drugs and drug samples at the federal level and sets minimum standards for the registration and regulation of drug distributors by the states. Both the PDMA and state laws limit the distribution of prescription pharmaceutical product samples and impose requirements to ensure accountability in distribution.

Market Exclusivity

Market exclusivity provisions under the FDCA can delay the submission or the approval of certain marketing applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the United States to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance.

During the exclusivity period, the FDA may not approve or even accept for review an abbreviated new drug application (ANDA) or an NDA submitted under Section 505(b)(2) of the FDCA (505(b)(2) NDA) submitted by another company for another drug containing the same active moiety, regardless of whether the drug is intended for the same indication as that of the original innovative drug or for another indication. However, such an application may be accepted for review after four years if it contains a certification of patent invalidity or non-infringement to one of the patents listed with the FDA by the innovator NDA holder.

The FDCA alternatively provides three years of market exclusivity for an NDA, or supplement to an existing NDA, if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application. This three-year exclusivity covers only the modification for which the drug received approval based on the new clinical investigations and does not prohibit the FDA from approving ANDAs or 505(b)(2) NDAs for drugs containing the active agent for the original indication or condition of use. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to all of the preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

Pediatric exclusivity is another type of market exclusivity available in the United States. Pediatric exclusivity provides for an additional six months of marketing exclusivity attached to another period of exclusivity if a sponsor conducts clinical trials in children, in response to a Written Request from the FDA. The FDA may only grant pediatric exclusivity if existing patent or exclusivity protections for the drug would otherwise expire at least nine months after the grant of the pediatric exclusivity; FDA has 180 days to make a pediatric exclusivity determination once the NDA sponsor submits study reports required under the written request. The issuance of a written request does not require the sponsor to undertake the described clinical trials.

Other Healthcare Laws and Compliance Requirements

Pharmaceutical companies are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the state, local, and foreign jurisdictions in which they conduct their business. Such laws include, without limitation, U.S. federal and state anti-kickback, fraud and abuse, false claims, consumer fraud, pricing reporting, data privacy and security, and transparency laws and regulations, as well as similar foreign laws in the jurisdictions outside the United States. Violations of such laws, or any other governmental regulations that apply, may result in penalties, including, without limitation, civil and criminal penalties, damages, fines, additional reporting and oversight obligations, the curtailment or restructuring of operations, exclusion from participation in governmental healthcare programs, and individual imprisonment.

In the event that third-party reimbursement becomes available for our products, we would also become subject to the various federal and state fraud and abuse laws applicable to pharmaceutical companies. Among other things, these laws may impact our arrangements with customers or potential customers, as well as our consulting and other arrangements with healthcare providers and others who purchase, recommend or order our products. The federal AKS is a criminal law that prohibits, among other things, persons and entities (including a prescription drug manufacturer or a party acting on its behalf) from knowingly and willfully offering, paying, soliciting, or receiving remuneration, directly or indirectly, overtly or covertly, in cash or in kind, in return for or to induce or reward the purchase, lease, order, arrangement for, or recommendation of, any item or service that is reimbursable, in whole or in part, under a federal healthcare program, such as Medicare or Medicaid. A person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. Violation of the federal AKS can result in significant civil monetary penalties and criminal

fines, as well as imprisonment and exclusion form participation in federal healthcare programs. Although there are a number of statutory exemptions and regulatory safe harbors to the federal AKS protecting certain common business arrangements and activities from prosecution or regulatory sanctions, the exemptions and safe harbors are drawn narrowly, and practices that do not fit squarely within an exemption or safe harbor, or for which no exception or safe harbor is available, may be subject to scrutiny.

In addition, the federal civil and criminal false claims laws (including the civil FCA, for which claims can be brought by private citizens on behalf of the government through qui tam or whistleblower actions), impose liability (including significant penalties and damages) for, among other things, knowingly presenting, or causing to be presented, false or fraudulent claims for payment of federal funds, and knowingly making, using, or causing to be made, a false record or statement material to an obligation to pay money to the federal government, or knowingly concealing or knowingly and improperly avoiding, decreasing or concealing an obligation to pay money to the federal government. Moreover, the government may assert that a claim including items or services resulting from a violation of the federal AKS constitutes a false or fraudulent claim for purposes of the civil FCA. Because of the threat of treble damages and mandatory penalties per false or fraudulent claim or statement under the FCA, healthcare and pharmaceutical companies often resolve allegations without admissions of liability for significant and material amounts. Pharmaceutical and other healthcare companies also are subject to other federal false claim laws, including, among others, federal criminal healthcare fraud and false statement statutes that extend to non-government health benefit programs.

The fraud provisions of the HIPAA impose criminal liability for knowingly and willfully executing a scheme to defraud any healthcare benefit program, including private third-party payors, and prohibit knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false, fictitious or fraudulent statement or representation, or making or using any false writing or document knowing the same to contain any materially false fictitious or fraudulent statement or entry, in connection with the delivery of or payment for healthcare benefits, items or services.

Further, the federal Physician Payments Sunshine Act requires manufacturers with a product subject to reimbursement under certain federal health care programs, among others, to track and report annually certain data on payments and other transfers of value to U.S.-licensed physicians, teaching hospitals, and various other providers, as well as ownership and investment interests held by certain physicians and their immediate family members in the manufacturer. Analogous state laws addressing these topics may also affect our arrangements.

The majority of states also have statutes similar to the federal AKS and civil FCA that apply to items and services reimbursed under Medicaid and other state health care programs, or in several states, regardless of the payor.

State laws also may require pharmaceutical companies to comply with the pharmaceutical industry’s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, as well as require the registration of pharmaceutical sales representatives and the reporting of pricing information and marketing expenditures.

Coverage and Reimbursement

Sales of any pharmaceutical product depend, in part, on the extent to which such product will be covered by third-party payors, such as federal, state, and foreign government healthcare programs, commercial insurance and managed healthcare organizations, and the level of reimbursement for such product by third-party payors. Significant uncertainty exists as to the coverage and reimbursement

status of any newly approved product. Decisions regarding the extent of coverage and amount of reimbursement to be provided are made on a plan-by-plan basis. One third-party payor's decision to cover a product does not ensure that other payors will also provide coverage for the product. As a result, the coverage determination process can require manufacturers to provide scientific and clinical support for the use of a product to each payor separately, and can be a time-consuming process, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Payor reimbursement typically is different based on the type and setting for administration. Using Medicare as an example, therapies administered in the physician office usually are reimbursed under Medicare Part B and are billed to Medicare by the physician practice purchasing the product. Conversely, products taken by the patient orally at home usually are reimbursed under Medicare Part D and are billed to the program by the pharmacy dispensing the product. For products administered under the supervision of a physician in a physician office setting, obtaining coverage and adequate reimbursement may be particularly difficult because of the higher prices often associated with such drugs. If Medicare reimbursement is available for such products, it is based on the average sales price for the product plus a certain percentage. Additionally, separate reimbursement for the product itself or the treatment or procedure in which the product is used may not be available, which may impact physician utilization.

In addition, third-party payors are increasingly reducing reimbursements for pharmaceutical products and services. The U.S. government and state legislatures have continued implementing cost-containment programs, including price controls, restrictions on coverage and reimbursement, and requirements for substitution of generic products. Third-party payors are increasingly challenging the prices charged, examining the medical necessity, and reviewing the cost effectiveness of pharmaceutical products, in addition to questioning their safety and efficacy. Increasingly, third-party payors are requiring that drug companies provide them with predetermined discounts from list prices and are challenging the prices charged for medical products. Further, such payors are increasingly challenging the price, examining the medical necessity and reviewing the cost effectiveness of medical drug candidates. Adoption of price controls and cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures, could further limit or delay sales of any product. Decreases in third-party reimbursement for any product or a decision by a third-party payor not to cover a product could reduce physician usage and patient demand for the product.

In international markets, reimbursement and healthcare payment systems vary significantly by country, and many countries have instituted price ceilings on specific products and therapies. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product, or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. Pharmaceutical products may face competition from lower-priced products in foreign countries that have placed price controls on pharmaceutical products and may also compete with imported foreign products. Furthermore, there is no assurance that a product will be considered medically reasonable and necessary for a specific indication, will be considered cost-effective by third-party payors, that an adequate level of reimbursement will be established even if coverage is available, or that the third-party payors' reimbursement policies will not adversely affect the ability of manufacturers to sell products profitably.

Healthcare Reform

In the United States and certain foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system that affect the pharmaceutical industry. In March 2010, ACA was signed into law; it substantially changed the way

healthcare is financed by both governmental and private payers in the United States. The ACA contains a number of provisions of particular import to the pharmaceutical industry, including those governing enrollment in federal healthcare programs, reimbursement adjustments, and fraud and abuse changes. For example, the ACA requires collection of Medicaid rebates paid for covered outpatient drugs paid by Medicaid managed care organizations; imposes a nondeductible annual fee on pharmaceutical manufacturers or importers who sell “branded prescription drugs” to specified federal government programs; and requires a distinct calculation of rebates owed by manufacturers under the Medicaid Drug Rebate Program for covered outpatient drugs that are inhaled, infused, instilled, implanted, or injected.

The ACA and its implementation continue to evolve as a result of legislative, administrative, and judicial developments. We expect to continue to see changes involving the ACA which may potentially impact pricing, coverage, or reimbursement of our products.

In addition to the ACA, U.S. governments continue to seek to adopt healthcare policies and reforms intended to curb healthcare costs, such as federal or state controls on payment for drugs (including under Medicare, Medicaid, and commercial health plans). For example, the IRA, among other things, requires the U.S. Secretary of Health and Human Services to negotiate, with respect to Medicare units and subject to a specified cap, the price of a set number of certain high Medicare spend drugs and biologicals per year, which will begin taking effect in 2026. The IRA also makes several changes to the Medicare Part D benefit, including a limit on annual out-of-pocket costs, and a change in manufacturer liability under the program which could negatively affect our business and financial condition. The IRA also establishes a Medicare Part B and Part D inflation rebate scheme, under which manufacturers will owe rebates if, generally speaking, the average sales price of a Part B drug, or the average manufacturer price of a Part D drug, increases faster than the pace of inflation.

Government Price Reporting

Furthermore, a number of government pricing programs create certain price reporting obligations. Under the Medicaid Drug Rebate program, a participating manufacturer is required to pay a rebate to each state Medicaid program for its covered outpatient drugs that are dispensed to Medicaid beneficiaries and paid for by the state Medicaid program as a condition of having federal funds being made available for drugs under Medicaid and Medicare Part B. Those rebates are based on pricing data reported by the manufacturer on a monthly and quarterly basis to CMS.

Federal law requires that a manufacturer also participate in the 340B Drug Pricing program in order for federal funds to be available for the manufacturer’s drugs under Medicaid and Medicare Part B. The 340B program requires participating manufacturers to agree to charge no more than the 340B “ceiling price” for the manufacturer’s covered outpatient drugs to a specified “covered entities,” including community health centers and other entities that receive certain federal grants, as well as hospitals that serve a disproportionate share of low-income patients. The 340B ceiling price is calculated based on the information reported under the Medicaid Drug Rebate program.

Also under federal law, manufacturers must report to CMS, on a quarterly basis, average sales price information for certain categories of drugs that are paid under the Medicare Part B program. Manufacturers calculate average sales price based on a statutorily defined formula as well as regulations and guidance. CMS uses the reported information to determine payment rates for drugs under Medicare Part B.

In addition, starting in 2023, manufacturers must pay refunds to Medicare for single source drugs or biologicals, or biosimilar biological products, reimbursed under Medicare Part B and packaged in

single-dose containers or single-use packages for units of discarded drug reimbursed by Medicare Part B in excess of 10 percent of total allowed charges under Medicare Part B for that drug. A failure to pay refunds for discarded drugs under the discarded drug refund program could be subject us to civil monetary penalties of 125 percent of the refund amount.

Finally, in order to be eligible to have its products paid for with federal funds under the Medicaid and Medicare Part B programs and purchased by the Big Four agencies and certain federal grantees, a manufacturer is required to participate in the VA FSS pricing program, established under Section 603 of the Veterans Health Care Act of 1992. Under this program, the manufacturer is obligated to make its covered drugs available for procurement on an FSS contract and charge a price to the Big Four agencies that is no higher than the FCP, which is a price calculated pursuant to a statutory formula. The FCP is derived from the Non-FAMP, which the manufacturer calculates and reports to the VA on a quarterly and annual basis. Pursuant to applicable law, knowing provision of false information in connection with a Non-FAMP filing can subject a manufacturer to significant penalties for each item of false information. The FSS contract also contains extensive disclosure and certification requirements. Under Section 703 of the National Defense Authorization Act for FY 2008, the manufacturer is required to pay quarterly rebates to DoD on utilization of its innovator products that are dispensed through DoD's Tricare network pharmacies to Tricare beneficiaries. The rebates are calculated as the difference between the annual Non-FAMP and FCP for the calendar year that the product was dispensed.

Foreign Regulations

In addition to regulations in the United States, we will be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products. Whether or not we obtain FDA approval for a product, we must obtain approval by the comparable regulatory authorities of foreign countries before we can commence clinical trials, and approval of foreign countries or economic areas, such as the EU and the UK, before we may market products in those countries or areas. The approval process and requirements governing the conduct of clinical trials, product licensing, pricing, and reimbursement vary greatly from place to place, and the time may be longer or shorter than that required for FDA approval. Other foreign regulators such as the European Medicines Agency in the EU and the MHRA in the UK require compliance with GCPs for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. In terms of product licensing, the European Union has its own European wide procedure for the authorization of eligible medicines, referred to as the centralized procedure where there is a single application, a single evaluation and a single authorization throughout the European Union. This centralized procedure also overs Northern Ireland. A separate product licensing procedure applies in Great Britain (England, Scotland and Wales) (GB). From January 1, 2024, eligible GB marketing authorization applications can benefit from a new International Recognition Procedure that will allow the MHRA to conduct targeted assessments by recognizing approvals from trusted reference regulatory agencies in Australia, Canada, the EU, Japan, Singapore, Switzerland and the US.

Within the EU and the UK, regulatory protections are afforded to medicinal products such as data exclusivity. On April 26, 2023, the European Commission adopted a proposal for a new Directive and a new Regulation. If made into law, this proposal will revise and replace the existing general pharmaceutical legislation and will affect the existing period of regulatory protection afforded to medicinal products in the EU and Northern Ireland.

Australia

Our Phase 1 clinical trial for PIPE-307 is being conducted in Australia. The Therapeutic Goods Administration (TGA) and the NHMRC set the GCP requirements for clinical research in Australia.

Compliance with the regulations, standards and codes set by the TGA and NHMRC is mandatory. Under the *Therapeutic Goods Act 1989* (Cth) and the *Therapeutic Goods Regulations 1990* (Cth), it is a condition (amongst other conditions) of all clinical trials involving investigational medicinal products to comply with the National Statement on Ethical Conduct in Research Involving Humans, published by the NHMRC, and the Guideline for Good Clinical Practice published by the International Council for Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Guidelines). The ICH Guidelines have been adopted in Australia, and must be complied with across all fields of clinical research, including those related to pharmaceutical quality, nonclinical and clinical data requirements and trial designs. The basic requirements for preclinical data to support a first-in-human trial under ICH Guidelines are applicable in Australia. Requirements related to adverse event reporting in Australia are generally similar to those required in other major jurisdictions, although reporting timeframes may differ to other jurisdictions.

Clinical trials conducted using “unapproved therapeutic goods” in Australia, being those which have not yet been evaluated by the TGA for quality, safety and efficacy must occur pursuant to either the Clinical Trial Notification Scheme (CTN Scheme) or the Clinical Trial Approval Scheme (CTA Scheme). In each case, the trial is supervised by a Human Research Ethics Committee (HREC), an independent review committee set up under guidelines of the NHMRC that ensures the protection of rights, safety and well-being of human subjects involved in a clinical trial. A HREC reviews, approves and provides continuing examination of trial protocols (including any amendments), methods and materials intended to be used in obtaining and documenting informed consent of the clinical trial subjects.

The CTN Scheme broadly involves:

- submission to a HREC, of all material relating to the proposed clinical trial, including the trial protocol;
- the HREC reviews the scientific validity of the trial design, the balance of risk versus harm of the therapeutic good, the ethical acceptability of the trial process, and approves the trial protocol. The HREC is also responsible for monitoring the conduct of the trial;
- the institution or organization at which the trial will be conducted, referred to as the “Approving Authority”, giving final approval for the conduct of the trial at the site, having regard to the advice from the HREC; and
- the investigator submitting a ‘Notification of Intent to Conduct a Clinical Trial’ form (CTN Form) to the TGA. The CTN form must be signed by the sponsor, the principal investigator, the chairman of the HREC and a person responsible from the Approving Authority. The TGA does not review any data relating to the clinical trial however CTN trials cannot commence until the trial has been notified to the TGA.

Under the CTA Scheme:

- a sponsor submits an application to conduct a clinical trial to the TGA for evaluation and comment;
- a sponsor must forward any comments made by the TGA Delegate to the HREC(s) at the sites where the trial will be conducted;
- the HREC is responsible for considering the scientific and ethical issues of the proposed trial protocol.

A sponsor cannot commence a trial under the CTA Scheme until written advice has been received from the TGA regarding the application and approval for the conduct of the trial has been obtained from an ethics committee and the institution at which the trial will be conducted.

Approval for inclusion in the Australian Register of Therapeutic Goods (ARTG), is required before a therapeutic good (including pharmaceutical product) may be marketed (or supplied, imported, exported or manufactured) in Australia. Exceptions apply to therapeutic goods/pharmaceutical products that are supplied, imported, and exported to and from Australia for the purposes of a clinical trial, on the basis that certain conditions are met (e.g. the trial is conducted in accordance with the CTN or CTA scheme).

Once a sponsor decides to register a therapeutic good/pharmaceutical product in Australia, in order to obtain registration of the product on the ARTG, it is required that (amongst others):

- the sponsor submits appropriate documentation, including the outcomes of clinical trials and studies, to allow the TGA to assess the quality, safety and efficacy of the therapeutic product/pharmaceutical product; and
- the sponsor submits evidence which demonstrates that the manufacture of the therapeutic product/pharmaceutical product complies with the applicable GMP requirements.

The TGA has the ultimate discretion to decide whether to include the therapeutic product/pharmaceutical product in the ARTG.

Data Privacy and Security Laws

We receive, transmit and store personal data. Numerous federal, state and international laws address privacy, data protection and the collection, storing, sharing, use, disclosure and protection of personal data and other user data. The legislative and regulatory landscape for privacy and data protection continues to evolve, and there has been an increasing focus on privacy and data protection issues which may affect our business. For example, in California, the California Consumer Privacy Act (CCPA), as amended by the California Privacy Rights Act (CPRA), establishes certain requirements for data use and sharing transparency and provides California consumers (as defined in the law) certain rights concerning the use, disclosure, and retention of their personal data, with certain exceptions including for clinical trial data and data subject to HIPAA. Such rights include the right to opt out of certain sales of personal information. The CCPA also prohibits covered businesses from discriminating against consumers (e.g., charging more for services) for exercising any of their CCPA rights. The CCPA provides for potentially severe statutory penalties, and a private right of action for data breaches involving certain types of personal information. The CPRA, approved by a November 2020 ballot initiative, introduced significant amendments to the CCPA and established and funded a dedicated California privacy regulator, the California Privacy Protection Agency (CPPA). The amendments introduced by the CPRA went into effect on January 1, 2023, and new implementing regulations are expected to be introduced by the CPPA. Failure to comply with the CCPA may result in, among other things, significant civil penalties, and injunctive relief, or statutory or actual damages. Similarly, there are legislative proposals in the EU, the United States, at both the federal and state level, as well as other jurisdictions that could impose new obligations or limitations. For example, other states, including Virginia, Colorado, Utah, and Connecticut have enacted privacy laws similar to the CCPA. Moreover, other states such as Washington have passed health privacy specific legislation. While we do not believe we are currently subject to the CCPA, we or our business partners may be subject to similar privacy legislations and we continue to assess the impact of privacy legislation and regulatory developments on our business as additional information and guidance becomes available. The legislative and regulatory landscape for privacy and data protection continues to evolve, and there has been an increasing focus on privacy and data protection issues which may affect our business. Failure to comply with these laws and regulations could result in government enforcement actions and create liability for us (including the imposition of significant civil and/or criminal penalties), private litigation and/or adverse publicity that could negatively affect our business.

Additionally, the Health Insurance Portability and Accountability Act of 1996, the Health Information Technology for Economic and Clinical Health Act, and their implementing regulations (collectively, HIPAA) imposes privacy and security obligations on covered entity health care providers, health plans, and health care clearinghouses, as well as their "business associates" – certain persons or entities that create, receive, maintain, or transmit protected health information in connection with providing a specified service or performing a function on behalf of a covered entity. The U.S. Department of Health and Human Services (HHS) (through the Office for Civil Rights) as well as state Attorneys General have direct enforcement authority over covered entities and business associates with regard to compliance with HIPAA regulations. We may obtain health information from third parties that are subject to privacy and security requirements under HIPAA. Although we may not directly be subject to HIPAA, we could potentially be subject to criminal penalties if we, our affiliates, or our agents knowingly obtain individually identifiable health information maintained by a HIPAA-covered entity in a manner that is not authorized or permitted by HIPAA.

Additionally, to the extent we extend clinical trial or other activity into other jurisdictions, we may be subject to international data protection laws. For example, Australia, where our Phase 1 clinical trial for PIPE-307 is being conducted. EU member states, the United Kingdom, Switzerland and other jurisdictions have also adopted data protection laws and regulations, which impose significant compliance obligations. In the EEA and the United Kingdom, the collection and use of personal data, including clinical trial data, is governed by the provisions of the General Data Protection Regulation including as implemented in the UK (collectively, GDPR). The GDPR places certain obligations on the processing of personal data, including health data from clinical trials, including ensuring the lawfulness of processing personal data (including obtaining valid consent of the individuals to whom the personal data relates, where applicable), disclosing information on processing details to the individuals, the adequacy, relevance and necessity of the personal data collected, the retention of personal data collected, and the sharing of personal data with third parties. Other obligations relate to the use of personal data in accordance with individual rights, the transfer of personal data out of the EEA or the United Kingdom to third countries including the US, security breach notifications, and the security and confidentiality of the personal data. Enforcement by EEA and UK regulators is generally active, and failure to comply with the GDPR or applicable member state/UK local law may result in fines, amongst other things (such as notices requiring compliance within a certain timeframe). Further, the UK Government may amend/update UK data protection law, which may result in changes to our business operations and potentially incur commercial cost. Guidance on implementation and compliance practices are often updated, or otherwise revised.

In Australia, the collection, use and disclosure of personal information, which includes clinical trial data, is largely governed by the provisions of the *Privacy Act 1988* (Cth)(Privacy Act). The Privacy Act imposes additional restrictions on the collection, use and disclosure of 'sensitive information' about individuals, which includes health information. Under the Privacy Act, such information cannot be collected without the individual's consent, nor used and disclosed for purposes other than the primary purpose for which it was collected, unless consent is obtained from the individual to do so. Cross-border transfers of personal information are generally not permitted unless it is done with the consent of the individual, or the entity transferring the data has taken reasonable steps to ensure that the overseas recipient of the information will comply with the Privacy Act, which generally requires entering into contractual arrangements to this effect. Additional exceptions may apply. In relation to the use and disclosure of health information in the context of research relevant to public health and safety, the Privacy Act also recognizes that there are situations in which it is impractical to obtain the consent of the individual to collect, use and disclose their health information. In those situations, researchers are permitted to depart from the usual requirements of the Privacy Act, but must follow the Guidelines under Section 95 of the Privacy Act 1988 (which are guidelines dealing with medical research), and the Guidelines approved under Section 95AA of the Privacy Act (which are guidelines dealing with the

handling of health information for the purpose of research relevant to public health or public safety), as issued by the NHRMC.

Substantial monetary penalties for non-compliance with the Privacy Act apply, and include maximum fines of the greater of the following amounts: AUD$50.0 million, if the court cannot determine the value of the benefit that the body corporate, and any related body corporate, have obtained directly or indirectly and that is reasonably attributable to the conduct constituting the contravention – 3 times the value of that benefit, or if the court cannot determine the value of that benefit – 30% of the adjusted turnover of the body corporate during the breach turnover period for the contravention.

Employees and Human Capital Resources

Human Capital

As of December 31, 2023, we had 31 employees, all of which were full-time employees. Of our full-time employees, 25 are engaged in research and development activities and the remaining employees are engaged in general and administrative activities. Thirty-two percent of our employees have an M.D. or a Ph.D. From time to time, we also retain independent contractors to support our organization. None of our employees are represented by a labor union or covered by collective bargaining agreements, and we believe our relationship with our employees is good.

Talent Development, Compensation and Retention

We focus on attracting, retaining, and cultivating talented individuals. The principal purposes of our equity and cash incentive plans are to attract, retain and reward personnel through the granting of stock-based and cash-based compensation awards, in order to increase stockholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

Our values-based culture and our employees are a critical component of our success. We strive to create a supportive and professional environment for our employees. We expend considerable management time and attention, and financial resources, to attracting, retaining, and motivating exceptional individuals at our company.

Inclusive Workplace

We are committed to creating and maintaining a workplace that fosters diversity and an inclusive work environment that supports our workforce. Our management team and employees are also expected to exhibit and promote honest, ethical, and respectful conduct in the workplace. All of our employees must adhere to a code of business conduct and ethics that sets standards for appropriate behavior and are required to attend annual training on the code of business conduct and ethics.

Facilities

Our corporate headquarters is located at 10578 Science Center Drive, San Diego, California, where we lease approximately 17,408, square feet of office and laboratory space. We lease this space under a lease, as amended, that will terminate upon the commencement date of a new lease we have entered into to lease approximately 24,695 square feet of office and laboratory space located at 3565 General Atomics Court, San Diego, California, which new lease has an initial term of five years from the commencement date. We believe that our facilities are sufficient to meet our current operations and that any additional space we may require will be available on commercially reasonable terms.

Environmental Matters

Our laboratory operations require the use of hazardous materials, which subject us to a variety of federal, state and local environmental and safety laws and regulations. Some of the regulations under the current regulatory structure provide for strict liability, holding a party potentially liable without regard to fault or negligence. We could be held liable for damages and fines as a result of our business operations should contamination of the environment or individual exposure to hazardous substances occur. We cannot predict how changes in laws or development of new regulations will affect our business operations or the cost of compliance.

Legal Proceedings

We are not currently subject to any legal proceedings. From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. Regardless of outcome, litigation can have an adverse impact on us due to defense and settlement costs, diversion of management resources, negative publicity, reputational harm and other factors.

MANAGEMENT

Executive Officers and Directors

The following table sets forth the names, ages and positions of our executive officers and directors as of December 31, 2023.

Name	Age	Position
Executive Officers:		
Carmine Stengone	48	Chief Executive Officer, President and Chairman of the Board
Peter T. Slover	49	Chief Financial Officer
Daniel S. Lorrain, Ph.D.	55	Chief Science Officer
Stephen L. Huhn, M.D.	63	Chief Medical Officer and Senior Vice President, Clinical Development
Non-Employee Directors:		
Todd R. Brady(1)(2)	45	Director
Lori M. Lyons-Williams(1)(3)	46	Director
Clare R. Ozawa, Ph.D.*	49	Director
Stefan M. Larson, Ph.D.*	48	Director
Evert Schimmelpennink(1)(2)	51	Director
Olivia Ware(2)(3)	67	Director

(1) Member of the audit committee immediately after the effectiveness of the registration statement of which this prospectus forms a part.
(2) Member of the compensation committee immediately after the effectiveness of the registration statement of which this prospectus forms a part.
(3) Member of the corporate governance and nominating committee immediately after the effectiveness of the registration statement of which this prospectus forms a part.
* The director has submitted a resignation letter to be effective immediately prior the effectiveness of the registration statement of which this prospectus forms a part.

Executive Officers

Carmine Stengone has served as our President and Chief Executive Officer and as a board member since October 2018. Previously, he served as President, Chief Executive Officer and a board member of Avelas Biosciences, Inc. from January 2014 to October 2018 and as Chief Business Officer from May 2012 to January 2014. He also served as Senior Vice President, Business Development for COI Pharmaceuticals, Inc. (now Avalon Bioventures) and a member of its investment committee from May 2013 to October 2018, where he helped co-found six new biotechnology companies. Mr. Stengone served as Vice President of Corporate Development for Afraxis Holdings, Inc. and co-founder and CEO of Afraxis, Inc., a spin-out company from Afraxis Holdings, Inc. from 2010 to 2014. He previously held positions of increasing responsibility at Phenomix Corporation, Anadys and J&J Pharmaceutical Research & Development. Mr. Stengone is currently serving as a member of the board of directors of Kiora Pharmaceuticals, Inc. Mr. Stengone received his MBA from the Johnson Graduate School of Management at Cornell University, his M.S. in Organic Chemistry from Duke University and a B.S. in Chemistry from Wake Forest University. We believe that Mr. Stengone is qualified to serve on our board of directors because of the perspective and experience he provides as our President and Chief Executive Officer as well as his broad experience within the biotechnology industry.

Peter T. Slover has served as our Chief Financial Officer since September 2020. Mr. Slover previously served as the Chief Financial Officer of Sophiris Bio, Inc.(Sophiris) from January 2013 to May 2020 and as the Head of Finance and Principal Accounting Officer of Sophiris from April 2012 to January 2013. From April 2004 to April 2012, Mr. Slover held a variety of significant management

positions at Anadys, including Vice President, Finance and Operations, a position that he held from July 2009 to April 2012, Senior Director, Finance and Corporate Controller, Senior Manager, Financial Reporting and Internal Controls and Manager of Financial Reporting. Prior to joining Anadys, Mr. Slover was an auditor at KPMG LLP, where he spent seven years in public accounting. Mr. Slover is a Certified Public Accountant in the State of California (inactive). He received a B.S. in Business Administration from Shippensburg University.

Daniel S. Lorrain, Ph.D. is a member of our founding executive team and has served as our Chief Scientific Officer since March 2018. Previously, he was Executive Director and then promoted to Vice President of Biology at Inception Therapeutics, Inc. (Inception), a Versant Ventures discovery engine, from 2011 to 2018 where he led all aspects of biology and non-clinical pharmacology, including the acquisition of the remyelination program Inception 5 by Roche Holdings Inc. Prior to joining Inception, Dr. Lorrain was Senior Director of Pharmacology at Amira Pharmaceuticals, Inc. from 2005 to 2010 and contributed to the discovery of several clinical stage small molecule therapeutics to treat inflammation and fibrosis. Notably, he led the efforts of the LPA1R program that was acquired by Bristol-Myers Squibb Company. Prior to that, he was a Research Fellow at Merck & Co., Inc. from 1999 to 2005 where he contributed to early central nervous system drug discovery. He received a B.S. in Psychology from the State University of New York at Buffalo and a Ph.D. in Behavioral Neuroscience from the State University of New York at Buffalo and was a postdoctoral fellow at the University of Chicago.

Stephen L. Huhn, M.D. has served as our Chief Medical Officer and Senior Vice President of Clinical Development since January 2020. He has over 14 years of experience with early clinical development in central nervous system disorders across a wide range of neuroscience indications. Dr. Huhn also served as Chief Medical Officer and Vice President of Clinical Development at StemCells, Inc. from 2007 to 2016 where he led multiple clinical programs in lysosomal storage diseases, age-related macular degeneration, spinal cord injury and leukodystrophies. After the reverse merger of StemCells, Inc. in July 2016 until January 2020, Dr. Huhn provided independent consulting services to multiple biotechnology companies focused on early clinical development for a range of CNS indications and therapeutic platforms. Dr. Huhn is a board-certified neurosurgeon and Fellow in the American Association of Neurological Surgeons. He trained in neurosurgery at the University of Maryland and completed fellowships in neuro-oncology at the University of California, San Francisco and pediatric neurosurgery at Northwestern University. Before pursuing clinical translation in industry, Dr. Huhn was Chief of Pediatric Neurosurgery and an Associate Professor in Neurological Surgery at Stanford University. Dr. Huhn holds an M.D. awarded by the University of Arizona College of Medicine.

Non-Employee Directors

Todd R. Brady has served as a member of our board of directors since November 2019. Mr. Brady has served as the Director of Investments at Brace Pharma Capital since 2014. He currently serves on the board of directors of Vero Biotech Inc. since July 2015, Navitor Pharmaceuticals since July 2021, and as board observer for HotSpot Therapeutics since May 2020 and Antiva BioSciences since July 2021. He previously served as a board member of Avidity Biosciences from May 2017 to January 2021, Cocrystal Pharma Inc. from February 2019 to March 2020, and as a board observer for Precision Biosciences from June 2018 to March 2019, and Miragen Therapeutics from October 2015 to February 2017. Mr. Brady has an extensive and diverse background in capital markets, working in equity research, asset management, private equity and corporate banking over the duration of his career. Mr. Brady received a Master's of Business Administration from the Schulich School of Business (York University) and is a Chartered Financial Analyst. We believe that Mr. Brady is qualified to serve on our board of directors because of his financial expertise and experience in the biotechnology industry.

Stefan M. Larson, Ph.D. has served as a member of our board of directors since November 2019. Dr. Larson has served as partner at Sectoral Asset Management, responsible for leading biotechnology venture investments, since September 2018. He also serves on the boards of directors of Prilenia Therapeutics BV (since May 2020), Amolyt Pharma (since September 2021) and LENZ Therapeutics (since March 2023). Prior to joining Sectoral Asset Management, he was an Entrepreneur-in-Residence and later Venture Partner with Versant Ventures from July 2013 to July 2018, where he led the establishment of their Toronto-based Discovery Engine. He was also the founding CEO of Northern Biologics from January 2015 to November 2017 and a cofounder of two medical device companies: Perimeter Medical Imaging from January 2010 to December 2012, and was with Tornado Spectral Systems from January 2010 to December 2012. He began his career at McKinsey & Company in San Francisco and Toronto. Dr. Larson graduated from McGill University with a B.Sc. in Biology, and from University of Toronto with an M.Sc. in Molecular and Medical Genetics. He completed his Ph.D. in Biophysics at Stanford University. We believe that Dr. Larson is qualified to serve on our board of directors because of his commercial expertise and experience in the biotechnology industry.

Clare R. Ozawa, Ph.D. has served as a member of our board of directors since May 2017. Dr. Ozawa has served as a Managing Director at Versant Venture Management, LLC, a life science venture capital firm investing in early stage healthcare companies, since July 2017 and was an investment professional at Versant from 2008 to 2011. Prior to re-joining Versant, Dr. Ozawa was the Chief Business Officer of Inception Sciences from January 2011 to May 2014 and served as Inception Science's Chief Operating Officer from June 2014 to July 2017. She also worked in the office of the Chief Executive Officer at Novartis Pharma from 2006 to 2008 and at McKinsey & Company from 2002 to 2006. Dr. Ozawa previously served on the board of Oyster Point Pharma, Inc., a public biopharmaceutical company and serves on the board of several private companies. Dr. Ozawa received a B.S. in biological sciences and a Ph.D. in neurosciences from Stanford University. We believe that Dr. Ozawa is qualified to serve on our board of directors because of her expertise and experience in the biotechnology industry, including her educational background, and her management experience.

Lori M. Lyons-Williams has served as a member of our board of directors since August 2020. Ms. Lyons-Williams currently serves as President and Chief Executive Officer at Abdera Therapeutics Inc. a biopharmaceutical company. Previously, Ms. Lyons-Williams was President and Chief Operating Officer at Neumora Therapeutics, Inc., a biopharmaceutical company from April 2021 until April 2022. From December 2016 to May 2020, Ms. Lyons-Williams served as Chief Commercial Officer at Dermira, Inc. (Dermira), a public biopharmaceutical company, where she was responsible for the strategic, financial and operational leadership of the company's product portfolio, until Dermira's acquisition. From January 2002 to August 2016, Ms. Lyons-Williams worked at Allergan, Inc. (Allergan), a public biotechnology company, where she held positions of increasing responsibility, most recently as Vice President, Sales & Marketing, Urology. Ms. Lyons-Williams currently services on the boards of Abdera Therapeutics Inc., where she is also Chief Executive Officer, and of RAPT Therapeutics, Inc. a publicly traded biopharmaceutical company. From June 2019 until its acquisition in April 2021, Ms. Lyons-Williams served on the board of directors of Five Prime Therapeutics, Inc. Ms. Lyons-Williams received a B.A. in Interdisciplinary Studies from Virginia Polytechnic Institute and State University and an M.B.A., Marketing from the Carlson School of Management at the University of Minnesota. We believe that Ms. Lyons-Williams is qualified to serve on our board of directors because of her commercial expertise and experience in executive and leadership positions at other biotechnology companies.

Evert Schimmelpennink has served as a member of our board of directors since January 2022. Mr. Schimmelpennink has served as the President and Chief Executive Officer and as a member of the board of directors of LENZ Therapeutics since March 2021. Previously, from August 2017 to October

2020, Mr. Schimmelpennink served as President and Chief Executive Officer and a member of the board of directors of publicly listed Pfenex, Inc., a biopharmaceutical company, until its acquisition by Ligand Pharmaceuticals Inc. in late 2020. From November 2019 until its sale, Mr. Schimmelpennink also served as the acting Principal Financial Officer and Principal Accounting Officer of Pfenex, Inc. From October 2015 to August 2017, Mr. Schimmelpennink served as Chief Executive Officer of Alvotech, a biopharmaceutical company. Prior to that, Mr. Schimmelpennink held senior positions at Pfizer Inc. and Hospira, Inc. within their global specialty injectables businesses, as well as Synthon BV. Mr. Schimmelpennink currently serves on the board of directors of iBio, Inc. Mr. Schimmelpennink holds a M.Sc. in Bioprocess Engineering from the University of Wageningen in the Netherlands and a business degree from the Arnhem Business School. We believe that Mr. Schimmelpennink is qualified to serve on our board of directors due to his experience in executive and leadership positions at other biotechnology companies.

Olivia Ware has served on our board of directors since March 2024. Ms. Ware has more than 20 years of experience in pharmaceutical drug development, commercialization and healthcare management. From November 2019 to March 2021, Ms. Ware served as the Senior Vice President, BTK Franchise Head at Principia Biopharma Inc., which was acquired by Sanofi S.A. in 2020, where she was responsible for developing overall portfolio strategy for the company's three BTKi molecules. From August 2018 to November 2019, Ms. Ware served as Senior Vice President, U.S. Market and Franchise Development at Proteus Digital Health, Inc. From 2011 to 2018, Ms. Ware worked in a number of public and private biopharma firms as a private consultant. From 2016 to 2017, Ms. Ware was the Chief Commercial Officer at CytRx, Inc. From 1997 to 2010, Ms. Ware worked at Genentech, Inc. in a variety of roles of increasing responsibility in commercial, team leadership and product development. During her time at Genentech, Ms. Ware played a key role in the launch of several commercial drug products, including Rituxan®, Herceptin®, Avastin® and Lucentis®, and as Head of Oncology Team Leadership was responsible for molecule, disease and platform strategic plans and oncology portfolio management. Ms. Ware has served as a member of the board of Arcellx, Inc. since June 2022, Revance Therapeutics, Inc. since March 2021 and Ambrx Biopharma Inc. from April 2021 until June 2022. Ms. Ware holds an A.B. in Psychology from Davidson College and an M.B.A. in Finance and Marketing from the University of North Carolina at Chapel Hill. We believe Ms. Ware is qualified to serve on our board of directors due to her executive and board experience with life science and biotechnology companies.

Election of Officers

Our executive officers are appointed by, and serve at the discretion of, our board of directors. There are no family relationships among any of our directors or executive officers.

Board Composition

Our board of directors is currently authorized to have eight members and currently consists of seven members, who were elected pursuant to the amended and restated voting agreement that we entered into with certain holders of our common stock and certain holders of our preferred stock and the related provisions of our amended and restated certificate of incorporation.

The provisions of this voting agreement will terminate upon the completion of this offering, after which there will be no further contractual obligations regarding the election of our directors. Our directors hold office until their successors have been elected and qualified or appointed, or the earlier of their death, resignation or removal.

In accordance with the terms of our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect upon the completion of this offering, our board of

directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- the Class I directors will be Mr. Brady and Ms. Ware, and their terms will expire at the first annual meeting of stockholders held following the completion of the offering;
- the Class II directors will be Ms. Lyons-Williams and Mr. Schimmelpennink, and their terms will expire at the second annual meeting of stockholders held following the completion of the offering; and
- the Class III director will be Mr. Stengone and his term will expire at the third annual meeting of stockholders held following the completion of the offering.

Directors in a particular class will be elected for three-year terms at the annual meeting of stockholders in the year in which their terms expire. As a result, only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Each director's term continues until the election and qualification of his or her successor, or the earlier of his or her death, resignation or removal.

Our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect upon the completion of this offering provide that only our board of directors can fill vacant directorships, including newly-created seats. Any additional directorships resulting from an increase in the authorized number of directors would be distributed pro rata among the three classes so that, as nearly as possible, each class would consist of one-third of the authorized number of directors.

The classification of our board of directors may have the effect of delaying or preventing changes in our control or management. See the section titled "Description of Capital Stock—Anti-Takeover Provision—Certificate of Incorporation and Bylaw Provisions" elsewhere in this prospectus.

Director Independence

Upon the completion of this offering, we anticipate that our Class A common stock will be listed on the Nasdaq Global Select Market. Under the rules of Nasdaq, independent directors must comprise a majority of a listed company's board of directors within one year of the completion of this offering. In addition, the rules of Nasdaq require that, subject to specified exceptions and phase-in periods, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent. Audit committee members and compensation committee members must also satisfy the independence criteria set forth in Rule 10A-3 and Rule 10C-1, respectively, under the Exchange Act. Under the rules of Nasdaq, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director.

To be considered to be independent for purposes of Rule 10A-3 and under the rules of Nasdaq, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (1) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or (2) be an affiliated person of the listed company or any of its subsidiaries.

To be considered independent for purposes of Rule 10C-1 and under the rules of Nasdaq, the board of directors must affirmatively determine that each member of the compensation committee is independent, including a consideration of all factors specifically relevant to determining whether the director has a relationship to the company which is material to that director's ability to be independent

from management in connection with the duties of a compensation committee member, including, but not limited to: (i) the source of compensation of such director, including any consulting, advisory or other compensatory fee paid by the company to such director and (ii) whether such director is affiliated with the company, a subsidiary of the company or an affiliate of a subsidiary of the company.

Our board of directors undertook a review of its composition, the composition of its committees and the independence of our directors and considered whether any director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that, other than Mr. Stengone, our Chief Executive Officer, each of our other six directors, do not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that each of these directors is "independent" as that term is defined under the rules of Nasdaq, including in the case of all the members of our audit committee, the independence criteria set forth in Rule 10A-3 under the Exchange Act, and in the case of all the members of our compensation committee, the independence criteria set forth in Rule 10C-1 under the Exchange Act.

In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining his or her independence, including the beneficial ownership of our capital stock by each non-employee director, and the transactions involving them described in the section titled "Certain Relationships and Related Party Transactions" elsewhere in this prospectus. There are no family relationships among any of our directors or executive officers.

Board Leadership Structure

Our amended and restated bylaws will provide our board of directors with flexibility to combine or separate the positions of Chairman of the Board and Chief Executive Officer in accordance with its determination that utilizing one or the other structure would be in the best interests of our Company and its stockholders. At the current time, our Chairman of the Board, Mr. Stengone, also serves as our Chief Executive Officer and President. Our board of directors has determined that this structure is the most effective leadership structure for the Company at this time. Our board of directors believes that Mr. Stengone is the director best situated to identify strategic opportunities and to focus the activities of the board of directors due to his full-time commitment to the business and his company-specific experience. Our board of directors also believes that the combined role of Chairman and Chief Executive Officer promotes effective execution of strategic imperatives and facilitates information flow between management and the board of directors. Our board of directors has determined that maintaining the independence of the Company's directors and managing the composition and function of the board of directors' committees help maintain the board of directors' strong, independent oversight of management.

Our board of directors has also appointed a Lead Independent Director, Mr. Schimmelpennink, effective immediately upon the effectiveness of the registration statement of which this prospectus forms a part, as a matter of good corporate governance and believes that the appointment of the Lead Independent Director provides a balance for effective and independent oversight of management. Pursuant to our amended and restated bylaws and corporate governance guidelines, the Lead Independent Director is selected annually by the independent non-employee directors. The Lead Independent Director presides at meetings of the non-employee directors, presides at all meetings of the board of directors at which the Chairman is not present and performs such other functions as the

board of directors may direct, including advising on the selection of Committee chairs and advising management on the agenda for board of directors meetings. In addition, the Lead Independent Director serves as liaison between the Chairman and the non-employee directors and has the authority to call meetings of the non-employee directors. Our non-employee directors meet regularly in executive session without the presence of management or any non-independent directors.

In addition, our Audit, Compensation and Nominating and Corporate Governance Committees, which oversee critical matters such as the integrity of our financial statements, the compensation of executive management, the selection and evaluation of directors, the development and implementation of corporate governance policies, and the oversight of the Company's compliance with laws and regulations, each consist entirely of independent directors. Our board of directors will continue to periodically review our leadership structure and may make such changes in the future as it deems appropriate.

Role of the Board in Risk Oversight

One of the key functions of our board of directors is informed oversight of our risk management process. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure. Our executive officers are responsible for the day-to-day management of the material risks we face. Our board of directors administers its oversight function directly as a whole. Our board of directors will also administer its oversight through various standing committees, which will be constituted prior to the completion of this offering, that address risks inherent in their respective areas of oversight. For example, our audit committee will be responsible for overseeing the management of risks associated with our financial reporting, accounting and auditing matters; our compensation committee will oversee the management of risks associated with our compensation policies and programs; and our nominating and corporate governance committee will oversee the management of risks associated with director independence, conflicts of interest, composition and organization of our board of directors and director succession planning.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee. Our board of directors may establish other committees to facilitate the management of our business. Our board of directors and its committees will set schedules for meeting throughout the year and can also hold special meetings and act by written consent from time to time, as appropriate. Our board of directors expects to delegate various responsibilities and authority to committees as generally described below. The committees will regularly report on their activities and actions to the full board of directors. Each member of each committee of our board of directors will qualify as an independent director in accordance with the listing standards of Nasdaq. Each committee of our board of directors will have a written charter approved by our board of directors. Upon the completion of this offering, copies of each charter will be posted on our website at www.contineum-tx.com under the Investor Relations section. The inclusion of our website address in this prospectus does not include or incorporate by reference the information on our website into this prospectus. Members will serve on these committees until their resignation or until otherwise determined by our board of directors.

Audit Committee

Effective immediately after the effectiveness of the registration statement of which this prospectus forms a part, the members of our audit committee will be Messrs. Brady and Schimmelpennink, and

Ms. Lyons-Williams, each of whom can read and understand fundamental financial statements. Each member of our audit committee is independent under the rules and regulations of the SEC and the listing standards of Nasdaq applicable to audit committee members. Mr. Brady will be the chair of the audit committee. Our board of directors has determined that Mr. Brady qualifies as an audit committee financial expert within the meaning of SEC regulations and each member meets the financial sophistication requirements of Nasdaq.

Our audit committee will assist our board of directors with its oversight of the integrity of our financial statements; our compliance with legal and regulatory requirements; the qualifications, independence and performance of the independent registered public accounting firm; the design and implementation of our risk assessment and risk management. Among other things, our audit committee is responsible for reviewing and discussing with our management the adequacy and effectiveness of our disclosure controls and procedures. The audit committee also will discuss with our management and independent registered public accounting firm the annual audit plan and scope of audit activities, scope and timing of the annual audit of our financial statements, and the results of the audit, quarterly reviews of our financial statements and, as appropriate, initiates inquiries into certain aspects of our financial affairs. Our audit committee is responsible for establishing and overseeing procedures for the receipt, retention and treatment of any complaints regarding accounting, internal accounting controls or auditing matters, as well as for the confidential and anonymous submissions by our employees of concerns regarding questionable accounting or auditing matters. In addition, our audit committee has direct responsibility for the appointment, compensation, retention and oversight of the work of our independent registered public accounting firm. Our audit committee has sole authority to approve the hiring and discharging of our independent registered public accounting firm, all audit engagement terms and fees and all permissible non-audit engagements with the independent auditor. Our audit committee will review and oversee all related person transactions in accordance with our policies and procedures.

Our audit committee operates under a written charter that satisfies the applicable rules of the SEC and the listing standards of Nasdaq. We believe that the composition of our audit committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Compensation Committee

Upon the effectiveness of the registration statement of which this prospectus forms a part, the members of our compensation committee will be Messrs. Brady and Schimmelpennink, and Ms. Ware. Mr. Brady will be the chair of the compensation committee. Each member of our compensation committee is independent under the rules and regulations of the SEC and the listing standards of Nasdaq applicable to compensation committee members. Our compensation committee will assist our board of directors with its oversight of the forms and amount of compensation for our executive officers (including officers reporting under Section 16 of the Exchange Act), the administration of our equity and non-equity incentive plans for employees and other service providers and certain other matters related to our compensation programs. Our compensation committee, among other responsibilities, evaluates the performance of our chief executive officer and, in consultation with him, evaluates the performance of our other executive officers (including officers reporting under Section 16 of the Exchange Act).

Our compensation committee will operate under a written charter that satisfies the applicable rules of the SEC and the listing standards of Nasdaq. We believe that the composition of our compensation committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Nominating and Corporate Governance Committee

Upon the effectiveness of the registration statement of which this prospectus forms a part, the members of our nominating and corporate governance committee will be Ms. Lyons-Williams, and Ms. Ware. Each member of our nominating and governance committee is independent under the rules and regulations of the SEC and the listing standards of Nasdaq applicable to nominating and governance committee members. Ms. Lyons-Williams will be the chair of the nominating and corporate governance committee. Our nominating and corporate governance committee will assist our board of directors with its oversight of and identification of individuals qualified to become members of our board of directors, consistent with criteria approved by our board of directors, and selects, or recommends that our board of directors selects, director nominees; develops and recommends to our board of directors a set of corporate governance guidelines and oversees the evaluation of our board of directors.

Our nominating and corporate governance committee will operate under a written charter that satisfies the applicable rules of the SEC and the listing standards of Nasdaq. We believe that the composition of our nominating and corporate governance committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Under our corporate governance guidelines, which will become effective upon the closing of this offering, our nominating and corporate governance committee will consider various factors when evaluating the composition of our board of directors, including in no particular order of importance: (a) various and relevant career experience, (b) relevant skills, such as an understanding of the Company's business, (c) financial expertise, (d) diversity, including race, ethnicity, gender, national origin, and geography and (e) local and community ties.

Compensation Committee Interlocks and Insider Participation

None of our executive officers currently serves, or in the past fiscal year has served, as a member of the board of directors or compensation committee (or other board committee performing equivalent functions or, in the absence of any such committee, the entire board of directors) of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Code of Conduct

Our board of directors will adopt a code of conduct (the Code of Conduct) prior to the completion of this offering. The Code of Conduct will apply to all of our employees, officers, directors, contractors, consultants, suppliers and agents. Upon the completion of this offering, the full text of the Code of Conduct will be posted on our website at www.contineum-tx.com under the Investor Relations section. We intend to disclose future amendments to, or waivers of, the Code of Conduct, as and to the extent required by SEC regulations, at the same location on our website identified above or in public filings. Information contained on our website is not incorporated by reference into this prospectus, and you should not consider information contained on our website to be part of this prospectus or in deciding whether to purchase shares of our Class A common stock.

Non-Employee Director Compensation

Prior to this offering, we have not implemented a formal policy with respect to compensation payable to our non-employee directors. Other than as set forth in the table and described more fully below, we did not pay any compensation, including equity awards, to any of our non-employee directors in the last completed fiscal year ended December 31, 2023. We reimburse our directors for

expenses associated with attending meetings of our board of directors and its committees. In connection with this offering, we expect to implement an annual cash and equity compensation program for our non-employee directors.

2023 Director Compensation

The table below shows the total compensation that we paid to Ms. Lyons-Williams and Mr. Schimmelpennink, our only non-employee directors who received compensation, during the last completed fiscal year ended December 31, 2023.

Name	Fees Earned or Paid in Cash ($)	Option Awards(1) ($)	All Other Compensation ($)	Total ($)
Lori Lyons-Williams	25,000	—	—	25,000
Evert Schimmelpennink	23,819	—	—	23,819

(1) As of December 31, 2023, Mr. Schimmelpennink and Ms. Lyons-Williams held 164,620 and 165,000 options to purchase shares of our Class A common stock, respectively.

Directors who are also our employees or officers receive no additional compensation for their service as directors. See the section titled “Executive Compensation” elsewhere in this prospectus for additional information about the compensation Mr. Stengone, our Chief Executive Officer, President and Chairman of the Board, received during our fiscal year ended December 31, 2023.

EXECUTIVE COMPENSATION

Our named executive officers, which consist of our principal executive officer and our two other most highly compensated officers for our fiscal year ended December 31, 2023, are:

- Carmine Stengone, President and Chief Executive Officer;
- Daniel S. Lorrain, Ph.D., Chief Science Officer; and
- Peter T. Slover, Chief Financial Officer.

This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs. Actual compensation programs that we adopt following the completion of this offering may differ materially from the currently planned programs summarized in this discussion.

As noted above, we are an "emerging growth company," as that term is used in the JOBS Act, and have elected to comply with the reduced compensation disclosure requirements available to emerging growth companies under the JOBS Act.

2023 Summary Compensation Table

The following table shows information regarding the compensation of our named executive officers for the fiscal year ended December 31, 2023.

Name and Principal Position	Year	Salary ($)	Bonus ($)(1)	Option Awards ($)(2)	Non-Equity Incentive Plan Compensation ($)(3)	All Other Compensation ($)(4)	Total ($)
Carmine Stengone							
President and Chief Executive Officer	2023	515,595	55,000	1,525,000	207,527	12,177	2,315,299
Daniel S. Lorrain, Ph.D.							
Chief Science Officer	2023	371,708	55,000	1,220,000	126,567	11,749	1,785,024
Peter T. Slover							
Chief Financial Officer	2023	375,178	55,000	457,500	127,748	11,769	1,027,195

(1) The amounts reported in this column represent discretionary cash performance bonuses paid to each of the named executive officers in the amount of $27,500 on each of April 28, 2023 and October 31, 2023, which were awarded in connection with the execution of the J&J License Agreement in 2023. Each named executive officer is eligible to receive two additional cash bonus payments related to the execution of the J&J License Agreement, each in the amount of $27,500, which will be paid, subject to their continued employment through each such date, in April and October 2024.

(2) The amounts reported in this column reflect the aggregate grant date fair value of the option awards granted to our named executive officers in 2023, calculated in accordance with FASB ASC Topic 718. The assumptions used in calculating the grant date fair value of the options reported in this column are included in the financial statements for the year ended December 31, 2023 included elsewhere in this registration statement.

(3) Represents amounts earned by our named executive officers under our short-term incentive program, based on our achievement of certain corporate performance goals and the named executive officers' individual performance during 2023 and which were paid in January 2024.

(4) Includes, for each named executive officer, $9,900 in employer matching contributions under our 401(k) plan, as well as the named executive officer's cell phone allowance.

Narrative Explanation of Compensation Arrangements with our Named Executive Officers

Base Salaries and Annual Incentive Opportunities

The base salaries of our named executive officers are reviewed from time to time and adjusted when our board of directors or compensation committee determines an adjustment is appropriate. For our 2023 fiscal year, the base salary was $515,595 for Mr. Stengone, $371,708 for Dr. Lorrain, and $375,178 for Mr. Slover.

Each of our named executive officers is eligible to earn an annual incentive bonus, with such bonus awarded based on individual performance goals, as well as corporate goals related to our product development and advancement of clinical trials established by our Chief Executive Officer and approved by our board of directors. During our fiscal year ended December 31, 2023, our named executive officers were eligible to earn annual incentive bonuses based on our success in operating our 2023 corporate operating plan, which included goals relating to our clinical and discovery objectives, our partnering, licensing and collaboration programs, and our financing and talent recruiting and retention objectives. We require that participants continue to be employed through the payment date to receive a bonus. For our 2023 fiscal year, the target bonus rate (as a percentage of base salary) was 35% for Mr. Stengone and 30% for each of Dr. Lorrain and Mr. Slover. Based on our 2023 performance, our board of directors awarded payouts under our annual incentive program in the amounts of $207,527, $126,567, and $127,748 to Mr. Stengone, Dr. Lorrain, and Mr. Slover, respectively.

In addition, each named executive officer received cash bonuses in an aggregate amount equal to $55,000, which were paid 50% in each of April 2023 and October 2023 in connection with the execution of the J&J License Agreement in 2023. Each named executive officer is also eligible to receive two additional cash bonus payments related to the execution of the J&J License Agreement, each in the amount of $27,500, which will be paid, subject to their continued employment through each such date, in April and October 2024.

Equity Compensation

We offer stock options to our employees, including our named executive officers, as the long-term incentive component of our compensation program. Our stock options allow our employees to purchase shares of our Class A common stock at a price equal to the fair market value of our Class A common stock on the date of grant. In the past, our board of directors or compensation committee has determined the fair market value of our Class A common stock based on various inputs impacting the valuation of our Class A common stock, including valuation reports prepared by third party valuation firms. Generally, our stock option grants vest over a period of four years from the date of grant, with 25% of the total number of option shares vesting on the first anniversary of the award and the remaining option shares vesting in equal monthly installments over the following 36 months, subject to the recipient's continued service through the applicable vesting date. In September 2023, we granted stock options with respect to 1,000,000 shares, 800,000 shares and 300,000 shares to Mr. Stengone, Dr. Lorrain and Mr. Slover, respectively, which are scheduled to vest over our standard four-year vesting schedule.

Employee Benefits and Perquisites

Our named executive officers are eligible to participate in our health and welfare plans to the same extent as our full-time employees generally. We generally do not provide our named executive officers with perquisites or other personal benefits.

Retirement Benefits

All of our full-time employees, including our named executive officers, are eligible to participate in our 401(k) retirement plan (401(k) Plan), which is a retirement savings defined contribution plan designed to comply with Section 401(a) of the Internal Revenue Code of 1986, as amended (the Code). Pursuant to our 401(k) Plan, employees may elect to defer up to 90% of their eligible

compensation into the plan on a pre-tax or after-tax (Roth) basis, up to the statutorily prescribed annual limit and to have the amount of this reduction contributed to our 401(k) Plan. We provide a non-elective safe harbor contribution of 3% on eligible compensation up to the statutory prescribed annual limit.

Employment Arrangements with Named Executive Officers

We have entered into executive employment agreements with each of Messrs. Stengone and Slover and Dr. Lorrain which set forth their base salaries, annual incentive bonus targets and other terms of their employment. The employment agreements provide for at-will employment and do not provide for severance payments other than in the context of a termination of employment without cause or a resignation for good reason (as such terms are defined in the executive employment agreements), as described in "Severance and Change in Control Benefits" below.

Outstanding Equity Awards at 2023 Fiscal Year-End

The following table sets forth information regarding each unexercised option held by each of our named executive officers as of December 31, 2023.

The vesting schedule applicable to each outstanding option is described in the footnotes to the table below.

Please see the section titled "Severance and Change in Control Benefits" below for additional information regarding the vesting acceleration provisions applicable to the outstanding options held by our named executive officers.

	Option Awards				
Name	Vesting Commencement Date	Number of Securities Underlying Unexercised Options Exercisable (#)(1)	Number of Securities Underlying Unexercised Options Unexercisable (#)(1)	Option Exercise Price ($)	Option Expiration Date
Carmine Stengone	10/8/2019	718,777	—	0.22	11/13/2028
	11/26/2019	1,620,000	—	0.18	2/24/2030
	3/11/2021	1,436,875	653,125	1.51	3/15/2031
	9/27/2023	—	1,000,000	1.93	10/8/2033
Daniel S. Lorrain, Ph.D.	11/26/2019	425,000	—	0.18	2/24/2030
	3/11/2021	995,500	452,500	1.51	3/15/2031
	9/27/2023	—	800,000	1.93	10/8/2033
Peter T. Slover	9/15/2020	810,000(2)	—	0.18	10/5/2030
	3/11/2021	151,250	68,750	1.51	3/15/2031
	9/27/2023	—	300,000	1.93	10/8/2033

(1) 25% of the option shares vest on the one year anniversary of the vesting commencement date, and the remaining option shares vest in 36 equal monthly installments thereafter, provided the officer remains in continuous service through each such vesting date. In addition, if the officer is subject to an involuntarily termination within 30 days prior to or 18 months after a change in control, the option will become fully vested and remain exercisable for the full term of the option.

(2) The option is exercisable prior to vesting. In the event the option is exercised for unvested shares, the shares will remain subject to the Company's right of repurchase.

Severance and Change in Control Benefits

Pursuant to their executive employment agreements, each of Messrs. Stengone and Slover and Dr. Lorrain are eligible to receive the following severance benefits if we terminate their employment for reasons other than cause (as such term is defined in the executive employment agreements), death or disability, contingent on the officer executing and not revoking a general release of claims against us and provided such release becomes effective and irrevocable in its entirety following the officer's termination date:

- Continued payment of the officer's base salary for a period of 12 months following the date of termination; and

- Reimbursement for continued benefit coverage pursuant to COBRA for a period of up to 12 months following the date of termination.

In addition, if we terminate the named executive officer without cause or the named executive officer resigns with good reason (as such term is defined in the executive employment agreements), in either event within 30 days prior to or 18 months after a change in control (as such term is defined in the executive employment agreements), and the officer executes (and does not revoke) a general release of claims against us, then the vesting of all then-unvested equity awards held by the officer will be fully accelerated and, in the case of stock options, will remain exercisable for their full term.

Equity Plans

2024 Equity Incentive Plan

Our board of directors intends to adopt our 2024 Plan prior to the offering, and it will be submitted to our stockholders for approval. We expect that our 2024 Plan will become effective immediately on adoption although no awards will be made under it until the effective date of the registration statement of which this prospectus is a part. Our 2024 Plan is intended to replace our 2012 Plan. However, awards outstanding under our 2012 Plan will continue to be governed by their existing terms. Although not yet adopted, we expect that our 2024 Plan will have the features described below.

Share Reserve. The number of shares of our Class A common stock available for issuance under our 2024 Plan will equal the sum of shares plus up to shares remaining available for issuance under, or issued pursuant to or subject to awards granted under, our 2012 Plan. The number of shares reserved for issuance under our 2024 Plan will be increased automatically on the first day of each of our fiscal years, commencing in 2025 and ending in 2034, by a number equal to the lesser of:

- % of the shares of common stock outstanding on the last business day of the prior fiscal year; or
- the number of shares determined by our board of directors.

In general, to the extent that any awards under our 2024 Plan are forfeited, terminate, expire or lapse without the issuance of shares, or if we repurchase the shares subject to awards granted under our 2024 Plan, those shares will again become available for issuance under our 2024 Plan, as will shares withheld or tendered to pay the exercise or purchase price of an award or to satisfy tax withholding obligations related to any award.

Administration. The compensation committee of our board of directors will administer our 2024 Plan. The compensation committee will have complete discretion to make all decisions relating to our 2024 Plan and outstanding awards, including repricing outstanding options without stockholder approval and modifying outstanding awards in other ways.

Eligibility. Employees, non-employee directors, consultants and advisors will be eligible to participate in our 2024 Plan. However, only employees are eligible to receive incentive stock options.

Under our 2024 Plan, the aggregate grant date fair value of awards granted to our non-employee directors, together with the value of any cash compensation paid to our non-employee directors, may not exceed $ in any one fiscal year, except that the limitation for any newly appointed non-employee directors shall instead be $ in the fiscal year in which such non-employee director is initially appointed to our board of directors.

Types of Awards. Our 2024 Plan will provide for the following types of awards:

- incentive and nonstatutory stock options;

- stock appreciation rights;
- restricted shares; and
- restricted stock units.

Options and Stock Appreciation Rights. The exercise price for options granted under our 2024 Plan may not be less than 100% of the fair market value of our Class A common stock on the grant date. Optionees will be permitted to pay the exercise price in cash or, with the consent of the compensation committee:

- with shares of common stock that the optionee already owns;
- by an immediate sale of shares through a broker approved by us;
- by instructing us to withhold a number of shares having an aggregate fair market value that does not exceed the exercise price; or
- by other methods permitted by applicable law.

An optionee who exercises a stock appreciation right receives the increase in value of our Class A common stock over the base price. The base price for stock appreciation rights may not be less than 100% of the fair market value of our Class A common stock on the grant date. The settlement value of a stock appreciation right may be paid in cash, shares of our Class A common stock or a combination, as set forth in the underlying award agreement.

Options and stock appreciation rights vest as determined by the compensation committee. Options and stock appreciation rights expire at the time determined by the compensation committee but in no event more than ten years after they are granted. These awards generally expire earlier if the participant's service terminates.

Restricted Shares and Restricted Stock Units. Restricted shares and restricted stock units may be awarded under our 2024 Plan in return for any lawful consideration, and participants who receive restricted shares or restricted stock units generally are not required to pay cash for their awards. In general, these awards will be subject to vesting. Vesting may be based on length of service, the attainment of performance-based milestones or a combination of both, as determined by the compensation committee and set forth in the underlying award agreement.

Settlement of vested restricted stock units may be made in the form of cash, shares of Class A common stock or a combination of both.

Corporate Transactions. In the event we are a party to a merger, consolidation or certain change in control transactions, outstanding awards granted under our 2024 Plan, and all shares acquired under our 2024 Plan, will be subject to the terms of the definitive transaction agreement (or, if there is no such agreement, as determined by our compensation committee). Unless an award agreement provides otherwise, such treatment may include any of the following with respect to each outstanding award:

- the continuation, assumption or substitution of an award by a surviving entity or its parent;
- the cancellation of an award without payment of any consideration;
- the cancellation of the vested portion of an award (and any portion that becomes vested as of the effective time of the transaction) in exchange for a payment equal to the excess, if any, of the value that the holder of each share of our Class A common stock receives in the transaction over (if applicable) the exercise price otherwise payable in connection with the award; or

- the assignment of any reacquisition or repurchase rights held by us in respect of an award of restricted shares to the surviving entity or its parent (with proportionate adjustments made to the price per share to be paid upon exercise of such rights).

The compensation committee is not required to treat all awards, or portions thereof, in the same manner.

The vesting of an outstanding award may be accelerated by the compensation committee upon the occurrence of a change in control, whether or not the award is to be assumed or replaced in the transaction, or in connection with a termination of service following a change in control transaction.

A change in control generally includes:

- any person acquiring beneficial ownership of more than 50% of our total voting power;
- the sale or other disposition of all or substantially all of our assets; or
- our merger or consolidation after which our voting securities represent 50% or less of the total voting power of the surviving or acquiring entity.

Changes in Capitalization. In the event of certain changes in our capital structure without our receipt of consideration, such as a stock split, reverse stock split or dividend paid in Class A common stock, proportionate adjustments will automatically be made to:

- the maximum number and kind of shares available for issuance under our 2024 Plan, including the maximum number and kind of shares that may be issued upon the exercise of incentive stock options;
- the maximum number and kind of shares covered by, and exercise price, base price or purchase price, if any, applicable to each outstanding stock award; and
- the maximum number and kind of shares by which the share reserve may increase automatically each year.

In the event that there is a declaration of an extraordinary dividend payable in a form other than our Class A common stock in an amount that has a material effect on the price of our Class A common stock, a recapitalization, a spin-off or a similar occurrence, the compensation committee may make such adjustments to any of the foregoing as it deems appropriate, in its sole discretion.

Amendments or Termination. Our board of directors may amend, suspend or terminate our 2024 Plan at any time. If our board of directors amends our 2024 Plan, it does not need stockholder approval of the amendment unless required by applicable law, regulation or rules. Our 2024 Plan will terminate automatically ten years after the later of the date when our board of directors adopted our 2024 Plan or approved the latest share increase that was also approved by our stockholders.

2012 Equity Incentive Plan

Our board of directors adopted our 2012 Plan in July 2012, and it was also approved by our stockholders in July 2012. Our 2012 Plan was most recently amended by our board of directors in February 2021, and approved by our stockholders in February 2021. No further awards will be made under our 2012 Plan after this offering; however, awards outstanding under our 2012 Plan will continue to be governed by their existing terms.

Share Reserve. As of December 31, 2023, we have reserved 19,194,633 shares of our Class A common stock for issuance under our 2012 Plan, all of which may be issued as incentive stock

options. As of December 31, 2023, options to purchase 14,969,471 shares of our Class A common stock, at exercise prices ranging from $0.18 to $2.05 per share, or a weighted-average exercise price of $1.06 per share were outstanding under our 2012 Plan, and 2,812,543 shares of our Class A common stock remained available for future issuance. Shares subject to awards that are forfeited, expire or terminate without the issuance of shares, shares that are issued but forfeited due to a failure to vest, as well as shares applied to payment of the purchase price or exercise price of an award or in satisfaction of withholding taxes will again become available for issuance under our 2012 Plan or, following consummation of this offering, under our 2024 Plan.

Administration. Our board of directors has administered our 2012 Plan since its adoption; however, following this offering, the compensation committee of our board of directors will generally administer our 2012 Plan. The administrator has complete discretion to make all decisions relating to our 2012 Plan and outstanding awards under the 2012 Plan.

Eligibility. Employees, non-employee members of our board of directors and consultants are eligible to participate in our 2012 Plan. However, only employees are eligible to receive incentive stock options.

Types of Awards. Our 2012 Plan provides for the following types of awards granted with respect to shares of our Class A common stock:

- incentive and nonstatutory stock options;
- stock appreciation rights;
- restricted shares;
- restricted stock units; and
- other stock awards.

Options and Stock Appreciation Rights. The exercise price for options granted under our 2012 Plan is determined by our board of directors, but generally may not be less than 100% of the fair market value of our Class A common stock on the grant date. Optionees may pay the exercise price in cash or cash equivalents or by one, or any combination of, the following forms of payment, as permitted by the administrator in its sole discretion:

- by a broker assisted sale pursuant to a program developed under Regulation T;
- surrender of shares of Class A common stock that the optionee already owns;
- if the option is a nonstatutory stock option, by a “net exercise” arrangement pursuant to which the Company will withhold a whole number of shares of Class A common stock having an aggregate fair market value no greater than the aggregate exercise price, or the sum of such exercise price plus all or a portion of the minimum amount required to be withheld under applicable law;
- according to a deferred payment or similar arrangement with the optionee; or
- any other form of legal consideration that may be acceptable to our board of directors.

Options vest as determined by the administrator. In general, we have granted options that vest over a four-year period. Options expire at the time determined by the administrator, but in no event more than ten years after they are granted, and generally expire earlier if the optionee’s service terminates.

Stock appreciation rights are evidenced by stock appreciation right agreements adopted by the plan administrator. The plan administrator determines the strike price for a stock appreciation right, which generally cannot be less than 100% of the fair market value of our Class A common stock on the

date of grant. Upon the exercise of a stock appreciation right, we will pay the participant an amount in cash or stock equal to (1) the excess of the per share fair market value of our Class A common stock on the date of exercise over the strike price, multiplied by (2) the number of shares of Class A common stock with respect to which the stock appreciation right is exercised. A stock appreciation right granted under the 2012 Plan vests at the rate specified in the stock appreciation right agreement as determined by the plan administrator. The plan administrator determines the term of stock appreciation rights granted under the 2012 Plan, up to a maximum of ten years.

Restricted Shares. Restricted shares may be awarded or sold under our 2012 Plan in return for cash or cash equivalents or, as permitted by the plan administrator in its sole discretion, in exchange for services rendered to us, by delivery of a full-recourse promissory note or through any other means permitted by applicable law. Restricted shares vest as determined by the plan administrator. The award agreement evidencing a restricted share award may provide that any dividends paid on such restricted shares will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to such award.

Restricted Stock Units. Restricted stock units are evidenced by restricted stock unit agreements adopted by the plan administrator. Restricted stock units may be granted in consideration for any form of legal consideration or for no consideration. A restricted stock unit may be settled by cash, delivery of stock, a combination of cash and stock as deemed appropriate by the plan administrator, or in any other form of consideration set forth in the restricted stock unit award agreement. Additionally, dividend equivalents may be credited in respect of shares covered by a restricted stock unit. Any such dividend equivalents will be subject to the same terms and conditions as the underlying restricted stock units to which they related. Restricted stock units may be subject to vesting as determined by the plan administrator.

Other Stock Awards. Other stock awards are awards valued in whole or in part by reference to, or otherwise based on, shares of our Class A common stock. The administrator has the authority to determine the persons to whom other stock awards will be granted and the terms and conditions applicable to such awards.

Corporate Transactions. In the event that we are a party to certain mergers or consolidations or in the event of a sale of all or substantially all of our stock or assets, awards granted under our 2012 Plan will be subject to the agreement governing such transaction or, in the absence of such agreement, in the manner determined by the plan administrator. Such treatment may include, without limitation, one or more of the following with respect to outstanding awards:

- the continuation, assumption or substitution of an award by the surviving entity or its parent;
- the assignment of any reacquisition or repurchase rights held by us with respect to an award to the surviving corporation or acquiring corporation;
- the acceleration of the vesting, in whole or in part, of any award (and, if applicable, the time at which the award may be exercised) to a date prior to the effective time of such transaction as the plan administrator will determine (or, if the plan administrator does not determine such a date, to the date that is five days prior to the effective date of the transaction), with such award terminating if not exercised (if applicable) at or prior to the effective time of the transaction;
- the lapse of any reacquisition or repurchase rights held by us with respect to the award;
- the cancellation of the award, to the extent not vested or not exercised prior to the effective time of the transaction, in exchange for such cash consideration, if any, as the administrator, in its sole discretion, may consider appropriate; and
- the payment, in such form as may be determined by the plan administrator equal to the excess, if any, of (A) the value of the property the holder of the award would have received upon the

exercise of the award, over (B) any exercise price payable by such holder in connection with such exercise.

The plan administrator is not obligated to treat all awards in the same manner. The plan administrator has the discretion, at any time, to provide that an award under our 2012 Plan will vest on an accelerated basis in connection with a corporate transaction or to amend or modify an award so long as such amendment or modification is not inconsistent with the terms of the 2012 Plan or would not result in the impairment of a participant's rights without the participant's consent.

Changes in Capitalization. In the event of certain specified changes in the capital structure of our Class A common stock, such as a stock split, reverse stock split, stock dividend, reclassification or any other increase or decrease in the number of issued shares of stock effective without receipt of consideration by us, proportionate adjustments will automatically be made in (i) the number and kind of shares available for future grants under our 2012 Plan, (ii) the number and kind of shares covered by each outstanding option and all restricted shares, (iii) the exercise price per share subject to each outstanding option and (iv) any repurchase price applicable to shares granted under our 2012 Plan.

Amendments or Termination. The plan administrator may at any time amend, suspend or terminate our 2012 Plan, subject to stockholder approval in the case of an amendment that (i) increases the number of shares available for issuance, (ii) materially changes the class of persons eligible to receive stock awards under the 2012 Plan, (iii) materially increases the benefits to participants under the 2012 Plan or materially reduces the price at which shares may be issued or purchased under the 2012 Plan, (iv) materially extends the term of the 2012 Plan, or (v) expands the types of stock awards available for issuance under the 2012 Plan. Our 2012 Plan will terminate upon the completion of this offering, but as noted above, awards outstanding under our 2012 Plan will remain outstanding and will continue to be governed by their existing terms.

Employee Stock Purchase Plan

General. We expect that our board of directors will adopt the 2024 ESPP, prior to the offering, and it will be submitted to our stockholders for approval. We expect that our 2024 ESPP will become effective as of the effective date of the registration statement of which this prospectus is a part. Our 2024 ESPP will be intended to qualify under Section 423 of the Internal Revenue Code. Although not yet adopted, we expect that our 2024 ESPP will have the features described below.

Share Reserve. shares of our Class A common stock will be reserved for issuance under our 2024 ESPP. The number of shares reserved for issuance under our 2024 ESPP will automatically be increased on the first day of each of our fiscal years, commencing in 2025 and ending in 2044, by a number equal to the least of:

- shares;
- % of the shares of common stock outstanding on the last business day of the prior fiscal year; or
- the number of shares determined by our board of directors.

The number of shares reserved under our 2024 ESPP will automatically be adjusted in the event of a stock split, stock dividend or a reverse stock split (including an adjustment to the per-purchase period share limit).

Administration. The compensation committee of our board of directors will administer our 2024 ESPP.

Eligibility. All of our employees will be eligible to participate in our ESPP, although the administrator may exclude certain categories of employees from an offering period, as permitted by applicable law, including employees employed for less than two years, working less than 20 hours per week, who are employed less than five months per year, or are highly compensated employees. Eligible employees may begin participating in our 2024 ESPP at the start of any offering period.

Offering Periods. Each offering period will last a number of months determined by the compensation committee, not to exceed 27 months. A new offering period will begin periodically, as determined by the compensation committee. Offering periods may overlap or may be consecutive.

Amount of Contributions. Our 2024 ESPP will permit each eligible employee to purchase Class A common stock through payroll deductions. Each employee's payroll deductions may not exceed % of the employee's cash compensation. Each participant may purchase up to the number of shares determined by our board of directors on any purchase date, not to exceed shares. The value of the shares purchased in any calendar year may not exceed $25,000. Participants may withdraw their contributions at any time before stock is purchased.

Purchase Price. The price of each share of Class A common stock purchased under our 2024 ESPP will not be less than 85% of the lower of the fair market value per share of Class A common stock on the first day of the applicable offering period or the fair market value per share of Class A common stock on the purchase date.

Other Provisions. Employees may end their participation in our 2024 ESPP at any time. Participation ends automatically upon termination of employment with us. If we experience a change in control, our 2024 ESPP will end and shares will be purchased with the payroll deductions accumulated to date by participating employees. Our board of directors or our compensation committee may amend or terminate our 2024 ESPP at any time.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

The following is a description of transactions since January 1, 2021 to which we have been a party in which the amount involved exceeded the lesser of $120,000 or one percent of the average of our total assets at year end for the last two completed fiscal years and in which any of our executive officers, directors or beneficial holders of more than 5% of our capital stock (or any immediate family member of, or person sharing the household with, any of these individuals or entities), which we collectively refer to as a related person, had or will have a direct or indirect material interest, other than compensation arrangements which are described in the sections of this prospectus titled “Management—Director Compensation” and “Executive Compensation.” We believe that all of these transactions were on terms as favorable as could have been obtained from unrelated third parties.

Sales of Securities

Series C Preferred Stock Financing

From February 2021 until August 2023, we issued and sold an aggregate of 52,333,442 shares of our Series C preferred stock at a cash purchase price of $2.6799 per share for an aggregate purchase price of approximately $140.3 million (the Series C Financing).

These shares of Series C preferred stock will convert into an aggregate of shares of our Class A common stock and shares of our Class B common stock upon the completion of this offering.

The following table summarizes purchases of shares of our Series C preferred stock by our executive officers, directors and holders of more than five percent of our capital stock:

Investor	Affiliated Director(s) or Officer(s)	Shares of Series C Preferred Stock	Total Purchase Price
Entities affiliated with Baker Brothers(1)		9,701,855	$ 26,000,001
Entities affiliated with Versant Ventures(2)	Clare Ozawa; Paul Grayson	2,612,037	$ 6,999,998
Entities affiliated with Sectoral Asset Management(3)	Stefan Larson	2,087,019	$ 5,593,002
JJDC		9,328,706	$ 24,999,999

(1) Entities affiliated with Baker Brothers that purchased shares of our Series C preferred stock include (i) 667, L.P. and (ii) Baker Brothers Life Sciences, L.P.
(2) Entities affiliated with Versant Ventures that purchased shares of Series C preferred stock include Versant Vantage I, L.P. Clare Ozawa is a member of our board of directors and a managing director of Versant Ventures. Paul Grayson served on our board of directors until his resignation in November 2023. Dr. Ozawa has submitted a resignation letter to be effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part.
(3) Entities affiliated with Sectoral Asset Management that purchased shares of Series C preferred stock include New Emerging Medical Opportunities Fund IV SCSp and Sectoral DC 10 Limited. Stefan Larson is a member of our board of directors and a partner of Sectoral Asset Management. Dr. Larson has submitted a resignation letter to be effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part.

Agreements with Stockholders

Investor Rights Agreement

We are party to an amended and restated investor rights agreement (the Investors’ Rights Agreement) with certain holders of our capital stock, including (i) entities affiliated with Versant

Ventures, (ii) entities affiliated with Baker Brothers, (iii) entities affiliated with Sectoral Asset Management, and (iv) JJDC. Under our Investors' Rights Agreement, certain holders of our capital stock have the right to demand that we file a registration statement or request that their shares of our capital stock be covered by a registration statement that we are otherwise filing. See the section titled "Description of Capital Stock—Registration Rights" elsewhere in this prospectus for additional information regarding these registration rights.

Voting Agreement

We are party to an amended and restated voting agreement (the Voting Agreement) with certain holders of our capital stock, including (i) entities affiliated with Versant Ventures, (ii) entities affiliated with Baker Brothers, (iii) entities affiliated with Sectoral Asset Management, (iv) JJDC, (v) Mr. Stengone, (vi) Mr. Slover, (vii) Dr. Lorrain, (viii) Dr. Huhn, and (ix) Dr. Ozawa. Under our Voting Agreement, certain holders of our capital stock have agreed as to the manner in which they will vote their shares of our capital stock on certain matters, including with respect to the election of directors. The Voting Agreement will terminate upon the completion of this offering, at which time there will be no further contractual obligations regarding the manner in which shares are voted with respect to the election of our directors.

Right of First Refusal and Co-Sale Agreement

We are party to an amended and restated first refusal and co-sale agreement (the First Refusal and Co-Sale Agreement) with certain holders of our capital stock, including (i) entities affiliated with Versant Ventures, (ii) entities affiliated with Baker Brothers, (iii) entities affiliated with Sectoral Asset Management, (iv) JJDC, (v) Mr. Stengone, (vi) Mr. Slover, (vii) Dr. Lorrain, (viii) Dr. Huhn, and (ix) Dr. Ozawa. Under our First Refusal and Co-Sale Agreement, certain holders of our capital stock have the right of first refusal and co-sale relating to the shares of our common stock held by the parties to the agreement. Upon the completion of this offering our First Refusal and Co-Sale Agreement will terminate.

Agreements with Baker Brothers

On July 9, 2021, we entered into a registration rights agreement with Baker Brothers (the Baker Registration Rights Agreement), pursuant to which, Baker Brothers is, subject to certain limitations, entitled to certain registration rights. These registration rights include the right to demand that we file with the SEC a Form S-3 registration statement covering the registration of their shares of Class A common stock for resale, subject to certain conditions, as well as certain rights to an underwritten public offering, to effect the sale of their common stock for sale. See the section titled "Description of Capital Stock—Registration Rights–Baker Registration Rights Agreement" elsewhere in this prospectus for additional information regarding the registration rights available to Baker Brothers under the Baker Registration Rights Agreement.

On July 9, 2021, we entered into an amended letter agreement (the Letter Agreement) with Baker Bros. Advisors LP (BBA), the management company and investment advisor to Baker Brothers. Pursuant to the Letter Agreement, during the period beginning at the closing of this offering and for the three years thereafter, and as long as Baker Brothers and their affiliates, collectively, beneficially own at least 75% of our Series C preferred stock purchased by Baker Brothers in our Series C Financing, or such number of shares of our Class A common stock issued upon conversion of such number of shares of Series C preferred stock (in either case, as adjusted for any stock split, stock dividend, combination, or other recapitalization or reclassification or similar transaction), at any time (and from time to time) that Baker Brothers and their affiliates, collectively, beneficially own at least 2% of our then outstanding voting power we will have the obligation to support the nomination of, and to cause

our board of directors to include in the slate of nominees recommended to our stockholders for election, subject to the requirements of fiduciary duties under applicable law, one individual designated by BBA (the Baker Designee) unless a Baker Designee is already serving on our board of directors and the term of such Baker Designee as a director on the board of directors does not expire at such stockholder election. If a majority of our disinterested directors reasonably and in good faith determines that such Baker Designee would not be qualified to serve as our director under law, rules of the stock exchange on which our shares are listed, our amended and restated bylaws, or any of our company policies, we may notify Baker Brothers sufficiently in advance of the date on which the proxy materials related to such Baker Designee are to be mailed, and Baker Brothers shall propose a replacement Baker Designee. We refer to the period that Baker Brothers has a right to designate a Baker Designee herein as the Baker Nominating Period. If a Baker Designee resigns his or her seat on our board of directors or is removed or does not become a director for any reason, the vacancy will be filled by the election or appointment of another Baker Designee as soon as reasonably practicable, subject to compliance with applicable laws, rules and regulations. Further, pursuant to the terms of the Letter Agreement, we will have the obligation to invite one board of directors observer designee of BBA, to attend all meetings of our board of directors and all meetings of the committees of our board of directors as a nonvoting observer.

J&J License Agreement

In February 2023, we entered into the J&J License Agreement with J&J, pursuant to which we granted J&J an exclusive, worldwide license to develop, manufacture, and commercialize PIPE-307 in all indications.

J&J is generally responsible for all development, manufacturing, and commercialization activities for PIPE-307. Upon J&J deciding to conduct a first Phase 3 clinical trial for a product using PIPE-307, we have an opt-in right to fund a portion of all Phase 3 and subsequent development costs for PIPE-307, with such costs capped annually. If we opt to fund such development costs, then the royalties we are eligible to receive will increase by one to two percentage points. Pursuant to the terms of the J&J License Agreement, we received an upfront payment of $50.0 million. We are also eligible to receive approximately $1.0 billion in non-refundable, non-creditable milestone payments. Additionally, we are eligible to receive tiered royalties in the low-double digit to high-teen percent range on net sales of products containing PIPE-307. See the section titled “Business–License and Collaboration Agreements–J&J License Agreement” for more information related to the J&J License Agreement.

Employment Arrangements

Kym Lorrain, the wife of Dr. Lorrain, our Chief Science Officer, is currently employed as an Assistant Director. Her base salary, incentive compensation and employee benefits are comparable to those offered to similarly situated employees of Contineum and were approved by our Compensation Committee, which is comprised entirely of independent directors.

Indemnification Agreements

We have entered, and intend to continue to enter, into separate indemnification agreements with each of our directors and executive officers, in addition to the indemnification provided for in our amended and restated certificate of incorporation and amended and restated bylaws. The indemnification agreements and our amended and restated certificate of incorporation and amended and restated bylaws that will be in effect upon the completion of this offering require us to indemnify our directors, executive officers and certain controlling persons to the fullest extent permitted by Delaware law.

Related Party Transaction Policy

Prior to the completion of this offering, we intend to adopt a formal written policy providing that we are not permitted to enter into any transaction that exceeds the lower of $120,000 or 1% of the average of our total assets at year end for the previous two completed fiscal years in any given year and in which any related person has a direct or indirect material interest without the consent of our audit committee. Our audit committee will have the primary responsibility for reviewing and approving or disapproving such "related party transactions." The charter of our audit committee will provide that our audit committee shall review and approve in advance any related party transaction. In approving or rejecting any such transaction, our audit committee is to consider the relevant facts and circumstances available and deemed relevant to our audit committee, including whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances and the extent of the related person's interest in the transaction.

All of the transactions described in this section were entered into prior to the adoption of this policy. Although we have not had a written policy for the review and approval of transactions with related persons, our board of directors has historically reviewed and approved any transaction where a director or officer had a financial interest, including the transactions described above. Prior to approving such a transaction, the material facts as to relationship or interest of the relevant director, officer or holder of five percent or more of any class of our voting securities in the agreement or transaction was disclosed to our board of directors. Our board of directors took this information into account when evaluating the transaction and in determining whether such transaction was fair to us and in the best interest of all our stockholders.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of December 31, 2023 and as adjusted to reflect the sale of Class A common stock offered by us in this offering, for:

- each of the named executive officers;
- each of our directors;
- all of our executive officers and directors as a group; and
- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock.

We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated in the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

Applicable percentage ownership is based on 102,181,821 shares of our Class A common stock outstanding as of December 31, 2023, after giving effect to (i) the conversion of all outstanding shares of preferred stock as of that date into an aggregate of 102,181,821 shares of our common stock consisting of 92,479,966 shares of our Class A common stock and 9,701,855 shares of our Class B common stock and (ii) the exclusion of shares of Class A common stock, legally issued upon the early exercise of certain stock options, which are subject to service conditions and rights of repurchase that were outstanding as of December 31, 2023. For purposes of computing percentage ownership after this offering, we have assumed that (a) shares of Class A common stock will be issued by us in this offering; (b) the underwriters will not exercise their option to purchase up to additional shares of our Class A common stock; and (c) none of our executive officers, directors or stockholders who beneficially own more than 5% of our common stock will participate in this offering. In computing the number of shares of common stock beneficially owned by a person or entity and the percentage ownership of that person or entity, we deemed to be outstanding all shares of common stock subject to options held by that person or entity that are currently exercisable or that will become exercisable within 60 days of December 31, 2023. We did not deem these shares outstanding, however, such shares were included for the purpose of computing the percentage ownership of any other person or entity.

Upon the closing of this offering, each outstanding share of our preferred stock, will automatically convert into shares of Class A common stock in accordance with the provisions of our amended and restated certificate of incorporation, with the exception of certain outstanding shares of our preferred stock owned by entities affiliated with or managed by , and , which shares will automatically convert into an aggregate of shares of Class B common stock.

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Contineum Therapeutics, Inc., 10578 Science Center Drive, Suite 200, San Diego, CA 92121.

	Number of Shares Beneficially Owned Prior to this Offering		Percentage Shares Beneficially Owned			
			Class A Common Stock		Class B Common Stock	
Name of Beneficial Owner	Class A Common Stock	Class B Common Stock	Prior to this Offering	After this Offering	Prior to this Offering	After this Offering
Named Executive Officers and Directors:						
Carmine Stengone(1)	3,927,735	—	4.1		—	
Daniel S. Lorrain, Ph.D.(2)	2,538,205	—	2.7		—	
Peter Slover(3)	852,291	—	*		—	
Todd R. Brady	4,414,944	—	4.8		—	
Stefan M. Larson, Ph.D.(4)	5,322,313	—	5.8		—	
Lori M. Lyons-Williams(5)	165,000	—	*		—	
Evert Schimmelpennink(6)	164,620	—	*		—	
Clare R. Ozawa, Ph.D.(7)	18,037,969	—	19.4		—	
Olivia Ware	—	—	—		—	
All executive officers and directors as a group (10 persons)(8)	36,556,496	—	36.4		—	
Other 5% Stockholders:						
Entities affiliated with Versant Ventures(9)	29,758,473	—	32.2		—	
Entities affiliated with Baker Brothers(10)	—	9,701,855	—		100	
Entities affiliated with Sectoral Asset Management(11)	5,322,313	—	5.8		—	
JJDC(12)	9,328,706	—	10.1		—	

* Represents beneficial ownership of less than one percent (1%).

(1) Represents 3,927,735 shares of Class A common stock held by Mr. Stengone, of which 3,862,735 shares of Class A common stock are subject to options that are exercisable within 60 days of December 31, 2023.

(2) Represents 2,538,205 shares of Class A common stock consisting of (i) 2,464,610 shares of Class A Common Stock held by Dr. Lorrain, of which 1,480,833 shares of Class A common stock are subject to options that are exercisable within 60 days of December 31, 2023 and (ii) 73,595 shares of Class A Common Stock held by Kym Lorrain, of which 53,595 shares of Class A common stock are subject to options that are exercisable within 60 days of December 31, 2023. Kym Lorrain is the wife of Dr. Lorrain.

(3) Represents 852,291 shares of Class A common stock that are subject to options held by Mr. Slover that are exercisable within 60 days of December 31, 2023.

(4) Represents 4,482,730 shares of Class A common stock beneficially held by New Emerging Medical Opportunities IV SCSp and 839,583 shares of Class A common stock beneficially held by Sectoral DC 10 Limited. Dr. Larson, a member of our board of directors, is partner of both New Emerging Medical Opportunities IV SCSp and Sectoral DC 10 Limited and may be deemed to be a beneficial owner of the common shares held by both New Emerging Medical Opportunities IV SCSp and Sectoral DC 10 Limited. Stefan Larson disclaims beneficial ownership of these securities, except to the extent of his pecuniary interest therein. Dr. Larson has submitted a resignation letter to be effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part. The address for New Emerging Medical Opportunities IV SCSp, Sectoral DC 10 Limited, and Dr. Larson is c/o Sectoral Asset Management Inc., 1010 Sherbrooke St. West, Suite 1610, Montreal QC H3A 2R7 Canada.

(5) Represents 165,000 shares of Class A common stock held by Williams/Lyons-Williams Living Trust, dated May 20, 2015, all of which are subject to options that are exercisable within 60 days of December 31, 2023. Ms. Lyons-Williams, a member of our board of directors, is a trustee of the Williams/Lyons-Williams Living Trust, dated May 20, 2015 and has voting and investment control with respect to these shares.

(6) Represents 164,620 shares of Class A common stock held by Mr. Schimmelpennink, all of which are subject to options that are exercisable within 60 days of December 31, 2023.

(7) Represents (i) 1,083,777 shares of Class A common stock held by Dr. Ozawa, (ii) 300,000 shares of Class A common stock subject to options held by Dr. Ozawa that are exercisable within 60 days of December 31, 2023, (iii) 11,847,276 shares of Class A common stock beneficially held by Versant Venture Capital VI, L.P.(VVC VI), and (iv) 4,806,916 shares of Class A common stock beneficially held by Versant Vantage I, L.P. (VV I). Versant Ventures VI GP, L.P. (VV VI GP) is the general partner of VVC VI, and Versant Ventures VI GP-GP, LLC (VV VI GP-GP) is the general partner of VV VI GP. Each of Bradley J. Bolzon, Jerel C. Davis, Ph.D., Kirk G. Nielsen, Clare Ozawa, a member of our board of directors, Robin L. Praeger, and Thomas Woiwode, Ph.D., is a managing director of VV VI GP-GP, and each may be deemed to possess voting and dispositive control over the shares held by VVC VI and each may be deemed to have indirect beneficial ownership of the shares held by VVC VI but disclaims beneficial ownership of such securities, except to the extent of his or her respective pecuniary interest therein, if any. Versant Vantage I GP, L.P. (VV I GP) is the general partner of VV I, and Versant Vantage I GP-GP, LLC (VV I GP-GP) is the general partner of VV I GP. Each of Bradley J. Bolzon, Jerel C. Davis, Clare Ozawa, a member of our board of directors, Robin L. Praeger and Thomas Woiwode, Ph.D. is a managing director of VV I GP-GP, and each may be deemed to share voting and dispositive power over the shares held by VV I. Clare Ozawa, a

member of our board of directors, is a managing director of VV VI GP-GP and VV I GP-GP and may be deemed to have voting or dispositive power with respect to the above referenced shares held by VVC VI and VV I and disclaims beneficial ownership of such shares except to the extent of her pecuniary interest therein. The address for VVC VI and VV I is One Sansome Street, Suite 1650, San Francisco, CA 94104.

(8) Represents (i) 36,556,496 shares of Class A common stock beneficially owned by all current executive officers and directors as a group, of which 8,012,493 shares of Class A common stock issuable to all current executive officers and directors as a group are subject to options that are exercisable within 60 days of December 31, 2023.

(9) Represents (i) 13,022,243 shares of Class A common stock beneficially held by Versant Venture Capital IV, L.P. (VVC IV), (ii) 11,847,276 shares of Class A common stock beneficially held by VVC VI, (iii) 4,806,916 shares of Class A common stock beneficially held by VV I, and (iv) 82,038 shares of Class A common stock beneficially held by Versant Side Fund IV, L.P. (VSF IV). Versant Ventures IV, LLC (VV IV) is the general partner of each of VVC IV and VSF IV. Each of Kirk Nielsen, Thomas Woiwode, Bradley Bolzon, Robin Praeger, William Link, Samuel Colella, Rebecca Robertson, Brian Atwood, Ross Jaffe and Charles Warden is a managing director of VV IV and, as a result, each may be deemed to share voting and dispositive power over the shares held by each of VVC IV and VSF IV. VV VI GP is the general partner of VVC VI and VV VI GP-GP is the general partner of VV VI GP. Each of Bradley J. Bolzon, Jerel C. Davis, Kirk G. Nielsen, Clare Ozawa, a member of our board of directors, Robin L. Praeger and Tom Woiwode Ph.D., is a managing director of VV VI GP-GP, may be deemed to share voting and dispositive power over the shares held by VVC VI. VV I GP is the general partner of VV I, and VV I GP-GP is the general partner of VV I GP. Each of Bradley J. Bolzon, Jerel C. Davis, Clare Ozawa, a member of our board of directors, Robin L. Praeger and Dr. Woiwode, is a managing director of VV I GP-GP, and each may be deemed to share voting and dispositive power over the shares held by VV I. Clare Ozawa, a member of our board of directors is a managing director of VV VI GP-GP and VV I GP-GP and may be deemed to have voting or dispositive power with respect to the above referenced shares held by VVC VI and VV I and disclaims beneficial ownership of such shares except to the extent of her pecuniary interest therein. Additionally, all indirect holders of the above referenced shares disclaim beneficial ownership of all applicable shares except to the extent of their respective pecuniary interest therein. The address for VVC IV, VVC VI, VV I, and VSF IV is One Sansome Street, Suite 1650, San Francisco, CA 94104.

(10) Represents (i) 716,821 shares of our Class B common stock held by 667, L.P. (667) and (ii) 8,985,034 shares of our Class B common stock held by Baker Brothers Life Sciences, L.P. (Life Sciences). BBA is the management company and investment adviser to Baker Brothers and has complete and unlimited discretion and authority with respect to their investments and voting power over investments. Baker Bros. Advisors (GP) LLC (BBA-GP) is the sole general partner of BBA. The managing members of BBA-GP are Julian C. Baker and Felix J. Baker. Each of BBA-GP, Felix J. Baker and Julian C. Baker, as a managing member of BBA-GP and BBA, may be deemed to be beneficial owners of the common shares directly held by the Baker Brothers. Each of Julian C. Baker, Felix J. Baker, BBA-GP and BBA disclaim beneficial ownership of these securities, except to the extent of his or its pecuniary interest therein. The address for BBA, BBA-GP, Felix J. Baker and Julian C. Baker is c/o Baker Bros. Advisors LP, 860 Washington Street, 3rd Floor, New York, NY 10014.

(11) Represents (i) 4,482,730 shares of Class A common stock held by New Emerging Medical Opportunities Fund IV SCSp and (ii) 839,583 shares of Class A common stock beneficially held by Sectoral DC 10 Limited. Dr. Larson, a member of our board of directors, is a partner of New Emerging Medical Opportunities Fund IV SCSp and Sectoral DC 10 Limited and may be deemed to be a beneficial owner of the common shares held by New Emerging Medical Opportunities Fund IV SCSp and Sectoral DC 10 Limited. Dr. Larson disclaims beneficial ownership of these securities, except to the extent of his pecuniary interest therein. The address for New Emerging Medical Opportunities Fund IV SCSp, Sectoral DC 10 Limited, and Dr. Larson is c/o Sectoral Asset Management Inc., 1010 Sherbrooke St. West, Suite 1610, Montreal, QC, H3A 2R7, Canada.

(12) Represents 9,328,706 shares of Class A common stock beneficially held by JJDC, a wholly owned subsidiary of J&J, a New Jersey corporation. J&J may be deemed to indirectly beneficially own the shares that are directly beneficially owned by JJDC. The principal business address of J&J is One Johnson & Johnson Plaza, New Brunswick, NJ 08933, and the principal business address of JJDC is 410 George Street, New Brunswick, NJ 08901.

DESCRIPTION OF CAPITAL STOCK

The following description summarizes the most important terms of our capital stock, our amended and restated certificate of incorporation and our amended and restated bylaws, as each will be in effect following this offering. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description, you should refer to our amended and restated certificate of incorporation and amended and restated bylaws, which are included as exhibits to the registration statement of which this prospectus forms a part, and to the applicable provisions of Delaware law.

General

Upon the completion of this offering, our authorized capital stock will consist of shares of Class A common stock, $0.001 par value per share, shares of Class B common stock, $0.001 par value per share, and shares of undesignated preferred stock, $0.001 par value per share. Our board of directors will be authorized, without stockholder approval, to issue additional shares of our capital stock.

Pursuant to the provisions of our current amended and restated certificate of incorporation, all of the outstanding convertible preferred stock will automatically convert into shares of our common stock, consisting of shares of our Class A common stock and shares of Class B common stock in connection with the completion of this offering. Each of our Series A, Series A-1, Series B and Series C convertible preferred stock will convert at a ratio of 1:1. Assuming the effectiveness of this conversion as of , 2024, there were shares of our Class A common stock outstanding, held by approximately stockholders of record, shares of Class B common stock, and no shares of our convertible preferred stock outstanding.

Class A Common Stock and Class B Common Stock

If, immediately following the closing of this offering, and after taking into account any shares of Class A common stock purchased by a holder of our convertible preferred stock or its affiliates in this offering, a conversion of our convertible preferred stock held by such holder would result in such holder beneficially holding in excess of 4.99% of the then outstanding Class A common stock, then, subject to certain conditions, the holder may convert a portion of such holder's outstanding preferred stock into shares of Class B common stock in order for such's holder beneficial ownership to be equal to or less than 4.99% of the then outstanding Class A common stock.

Holders of our Class A common stock have no conversion rights, while holders of our Class B common stock have the right to convert each share of our Class B common stock into one share of Class A common stock at such holder's election, provided that as a result of such conversion, such holder, together with its affiliates and any members of a Schedule 13(d) group with such holder, would not beneficially own in excess of 4.99% of our Class A common stock immediately prior to and following such conversion, unless otherwise as expressly provided for in our amended and restated certificate of incorporation. However, this ownership limitation may be increased or decreased to any other percentage designated by such holder of Class B common stock upon 61 days' notice to us.

Dividend Rights

Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our Class A common stock and our Class B common stock are entitled to receive dividends out of funds legally available if our board of directors, in its discretion, determines to issue dividends and then only at the times and in the amounts that our board of directors may determine. See the section entitled "Dividend Policy."

Voting Rights

Except as otherwise expressly provided in our amended and restated certificate of incorporation or as required by applicable law, on any matter that is submitted to a vote by our stockholders, holders of our Class A common stock are entitled to one vote per share of Class A common stock, and holders of our Class B common stock are not entitled to vote, including for the election of directors. We have not provided for cumulative voting for the election of directors in our amended and restated certificate of incorporation, which means that holders of a majority of the shares of our Class A common stock will be able to elect all of our directors. Our amended and restated certificate of incorporation will establish a classified board of directors, to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms.

No Preemptive or Similar Rights

Neither our Class A common stock nor our Class B common stock is entitled to preemptive rights, and neither is subject to conversion, redemption or sinking fund provisions.

Right to Receive Liquidation Distributions

Upon our liquidation, dissolution or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our Class A common stock and our non-voting Class B common stock and any participating preferred stock outstanding at that time, subject to prior satisfaction of all outstanding debt and liabilities and the preferential rights of and the payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

Preferred Stock

Upon the completion of this offering, no shares of preferred stock will be outstanding, but we will be authorized, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any associated qualifications, limitations or restrictions. Our board of directors also can increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of our company and may adversely affect the market price of our common stock and the voting and other rights of the holders of common stock. We have no current plan to issue any shares of preferred stock.

Warrants

As of December 31, 2023, we had outstanding an immediately exercisable warrant to purchase 88,235 shares of our Series B convertible preferred stock at an exercise price of $1.70 per share. The warrant is subject to a cashless exercise mechanism. In connection with this offering, the warrant will become exercisable for an aggregate of 88,235 shares of our Class A common stock at an exercise price of $1.70 per share.

Options

As of December 31, 2023, there were options to purchase 14,969,471 shares of our Class A common stock outstanding, with an average exercise price of $1.06, all of which were granted under our 2012 Plan.

Registration Rights

Following the completion of this offering, the holders of shares of our common stock issued upon the conversion of our preferred stock will be entitled to contractual rights to require us to register those shares under the Securities Act. These registration rights are provided under the terms of the Investors' Rights Agreement, which we entered in February 2021.

We will pay all expenses relating to any demand or piggyback registration described below, other than underwriting discounts. The registration rights terminate upon the earliest to occur of: (i) the third anniversary of the completion of this offering; (ii) a liquidation event; or (iii) with respect to the registration rights of an individual holder, such earlier time after this offering at which the holder can sell all of its shares in compliance with Rule 144 during any 90-day period without registration.

Demand Registration Rights

The holders of the registrable securities will be entitled to certain demand registration rights. At any time beginning 180 days following the effectiveness of this offering, the holders of 60% or more of the registrable securities then outstanding may make a written request that we register at least 85% of their registrable securities then outstanding (or a lesser percentage if the anticipated aggregate offering price, net of underwriting discounts and commissions, is not less than $10.0 million), subject to certain specified conditions and exceptions. We are required to use commercially reasonable efforts to effect the registration and will pay all registration expenses, other than underwriting discounts, related to any demand registration. We are not obligated to effect more than two of these registrations.

Piggyback Registration Rights

In connection with this offering, holders of our registrable securities were entitled to, and the necessary percentage of holders waived, their rights to notice of this offering and to include their registrable securities in this offering. If we propose to register any of our securities under the Securities Act either for our own account or for the account of other stockholders in another offering, the holders of shares having registration rights will, subject to certain exceptions, be entitled to include their shares in our registration statement, provided that the underwriters of any such offering have the right to limit the number of shares included in the registration. These registration rights are subject to specified other conditions and limitations as set forth in the Investors' Rights Agreement.

Form S-3 Registration Rights

At any time after we are qualified to file a registration statement on Form S-3, and subject to limitations and conditions specified in the Investors' Rights Agreement, any holder or holders of registrable securities then outstanding may make a written request that we prepare and file a registration statement on Form S-3 under the Securities Act covering their shares, so long as the aggregate price to the public is at least $2.0 million. We are not obligated to effect more than two of these Form S-3 registrations in any 12-month period. We will pay all registration expenses, other than underwriting discounts, related to any Form S-3 registration.

Baker Registration Rights Agreement

On July 9, 2021 we entered into the Baker Registration Rights Agreement, pursuant to which, Baker Brothers is, subject to certain limitations, entitled to certain registration rights. These registration rights include the right to demand that we file with the SEC a Form S-3 registration statement covering the registration of their common stock for resale, subject to certain conditions, as well as rights to be permitted one underwritten public offering per calendar year, but no more than two underwritten public offerings in any 12-month period or three underwritten public offering in total, to effect the sale of their common stock for sale. The Baker Registration Rights Agreement requires us to pay expenses relating to such registrations (excluding any underwriting discounts, selling commissions and the fees and expenses of any legal counsel or other advisors of such holder(s) in connection with such registration) and indemnify these holders against certain liabilities. Our registration obligations under the Baker Registration Rights Agreement continue in effect until the earliest of (i) up to ten years after the date we entered into the Baker Registration Rights Agreement, (ii) when the applicable registrable securities have been resold by the holders pursuant to an effective registration statement, or (iii) when the applicable registrable securities have been resold pursuant to Rule 144 (or other similar rule).

Anti-Takeover Provisions

Delaware Law

Upon the completion of this offering, we will be governed by the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. This section prevents some Delaware corporations from engaging, under some circumstances, in a business combination, which includes a merger or sale of at least 10 percent of the corporation's assets with any interested stockholder, meaning a stockholder who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15 percent or more of the corporation's outstanding voting stock, unless:

- the transaction is approved by the board of directors prior to the time that the interested stockholder became an interested stockholder;
- upon closing of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85 percent of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- subsequent to such time that the stockholder became an interested stockholder the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders by at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

While a Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or amended and restated bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares, we have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Certificate of Incorporation and Bylaw Provisions

Upon the completion of this offering, our amended and restated certificate of incorporation and our amended and restated bylaws will include a number of provisions that may have the effect of

deterring hostile takeovers or delaying or preventing changes in control of our management team, including the following:

- ***Board of Directors Vacancies***. Our amended and restated certificate of incorporation and amended and restated bylaws will authorize our board of directors to fill vacant directorships, including newly-created seats. In addition, the number of directors constituting our board of directors will be set only by resolution adopted by a majority vote of our entire board of directors. These provisions will prevent a stockholder from increasing the size of our board of directors and gaining control of our board of directors by filling the resulting vacancies with its own nominees.
- ***Classified Board***. Our amended and restated certificate of incorporation and amended and restated bylaws will provide that our board of directors will be classified into three classes of directors, each of which will hold office for a three-year term. In addition, directors may only be removed from the board of directors for cause and only by the approval of $66^{2/3}$ percent of our then-outstanding shares of our common stock. A third party may be discouraged from making a tender offer or otherwise attempting to obtain control of us as it is more difficult and time consuming for stockholders to replace a majority of the directors on a classified board of directors.
- ***Stockholder Action; Special Meeting of Stockholders***. Our amended and restated certificate of incorporation will provide that stockholders will not be able to take action by written consent, and will only be able to take action at annual or special meetings of our stockholders. Stockholders will not be permitted to cumulate their votes for the election of directors. Our amended and restated bylaws will further provide that special meetings of our stockholders may be called only by a majority vote of our entire board of directors, the chairman of our board of directors or our chief executive officer.
- ***Advance Notice Requirements for Stockholder Proposals and Director Nominations***. Our amended and restated bylaws will provide advance notice procedures for stockholders seeking to bring business before our annual meeting of stockholders, or to nominate candidates for election as directors at any meeting of stockholders. Our amended and restated bylaws will also specify certain requirements regarding the form and content of a stockholder's notice. These provisions may preclude our stockholders from bringing matters before our annual meeting of stockholders or from making nominations for directors at our meetings of stockholders.
- ***Issuance of Undesignated Preferred Stock***. Our board of directors will have, the authority, without further action by the holders of common stock, to issue up to shares of undesignated preferred stock with rights and preferences, including voting rights, designated from time to time by the board of directors. The existence of authorized but unissued shares of preferred stock will enable our board of directors to render more difficult or discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise.

Choice of Forum

Upon the completion of this offering, our amended and restated certificate of incorporation will provide that the Court of Chancery of the State of Delaware will be the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws or any action asserting a claim against us that is governed by the internal affairs doctrine. Our amended and restated certificate of incorporation will also provide that the U.S. federal district courts will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities

Act. Some companies that adopted a similar federal district court forum selection provision were subject to a suit in the Chancery Court of Delaware by stockholders who asserted that the provision is not enforceable. While the Delaware Supreme Court held that such federal district court forum selection provision was in fact valid, there can be no assurance that federal courts or other state courts will follow the holding of the Delaware Supreme Court or determine that the our federal district court forum selection provision should be enforced in a particular case.

These choice of forum provisions do not apply to actions brought to enforce a duty or liability created by the Exchange Act. We intend for the choice of forum provision regarding claims arising under the Securities Act to apply despite the fact that Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all actions brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. There is uncertainty as to whether a court would enforce such provision with respect to claims under the Securities Act, and our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

These exclusive forum provisions may limit the ability of our stockholders to bring a claim in a judicial forum that such stockholders find favorable for disputes with us or our directors, officers or employees, which may discourage such lawsuits against us and our directors, officers and employees. Alternatively, if a court were to find such provisions contained in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially adversely affect our business, financial condition and operating results.

Transfer Agent and Registrar

Upon the completion of this offering, the transfer agent and registrar for our common stock will be Equiniti Trust Company, LLC. The transfer agent’s address is 48 Wall Street, Floor 23, New York, NY 10005, and its telephone number is (800) 937-5449.

Listing

We have applied to list our shares of Class A common stock on the Nasdaq Global Select Market under the symbol “CTNM.” The offering is contingent upon the final approval from Nasdaq of the quotation of our Class A common stock on the Nasdaq Global Select Market.

SHARES ELIGIBLE FOR FUTURE SALE

Before this offering, there has not been a public market for shares of our Class A common stock and a liquid trading market for Class A common stock may not develop or be sustained after this offering. Future sales of substantial amounts of shares of our Class A common stock, including shares issued upon the exercise of outstanding options, in the public market following this offering or the possibility of these sales occurring, could cause the prevailing market price for our common stock to fall or impair our ability to raise equity capital through sales of equity securities in the future.

Upon the closing of this offering, we will have outstanding shares of our Class A common stock and shares of our Class B common stock, based on the number of shares outstanding as of . This includes shares of Class A common stock that we are selling in this offering, which shares may be resold in the public market immediately unless purchased by our affiliates, and assumes no additional exercise of outstanding options other than as described elsewhere in this prospectus.

Of these shares, all shares sold in this offering, plus any shares sold by us upon exercise of the underwriters' option to purchase additional shares of Class A common stock, will be freely tradable without restriction under the Securities Act, unless purchase by our "affiliates," as that term is defined in Rule 144 under the Securities Act. The remaining shares of Class A common stock that are not sold in this offering or issuable upon conversion of the shares of Class B common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act, and we expect that substantially all of these restricted securities will be subject to the 180-day lock-up period under the lock-up agreements as described below. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rule 144 or Rule 701 under the Securities Act, which are summarized below.

In addition, we, our executive officers and directors, and substantially all of our security holders have entered into market standoff agreements with us or lock-up agreements with the underwriters under which they have agreed, subject to specific exceptions, not to sell any of our capital stock until at least 180 days after the date of this prospectus, as described below. As a result of these agreements and the provisions of our investors' rights agreement disclosed in "Description of Capital Stock—Registration Rights," subject to the provisions of Rule 144 or Rule 701, based on an assumed offering date of , , shares will be available for sale in the public market as follows:

- beginning on the date of this prospectus, the shares of Class A common stock sold in this offering will be immediately available for sale in the public market, unless purchased by our affiliates;
- beginning 181 days after the date of this prospectus, additional shares of Class A common stock and shares of Class A common stock issuable upon conversion of Class B common stock will become eligible for sale in the public market, of which are subject to the volume and other restrictions of Rule 144 as described below, which shares will be held by our current officers, directors and greater than 10% stockholders; and
- the remainder of the shares of Class A common stock and shares of Class A common stock issuable upon conversion of Class B common stock will be eligible for sale in the public market from time to time thereafter, subject in some cases to the volume and other restrictions of Rule 144, as described below.

We cannot estimate the number of shares of our Class A common stock or shares issuable upon conversion of Class B common stock that our existing stockholders will elect to sell under Rule 144.

Rule 144

In general, under Rule 144 as currently in effect, a person who has beneficially owned shares of our restricted common stock for at least six months would be entitled to sell their securities provided that such person is not deemed to have been one of our affiliates at the time of, or at any time during the 90 days preceding, a sale, and we are subject to the periodic reporting requirements of the Exchange Act, for at least 90 days before the sale. In addition, under Rule 144, any person who is not an affiliate of ours and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares immediately upon the completion of this offering without regard to whether current public information about us is available. Persons who have beneficially owned shares of our restricted common stock for at least six months but who are our affiliates at the time of, or any time during the 90 days preceding, a sale, would be subject to additional restrictions, by which such person would be entitled to sell within any three-month period only a number of securities that does not exceed the greater of either of the following:

- 1% of the number of shares of our capital stock then outstanding, which will equal shares immediately after the completion of this offering, assuming no exercise by the underwriters of their option to purchase additional shares; or
- the average weekly trading volume of our Class A common stock on Nasdaq during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale,

provided, in each case, that we have been subject to the Exchange Act periodic reporting requirements for at least 90 days before the sale. Such sales both by affiliates and by non-affiliates must also comply with the manner of sale, current public information and notice provisions of Rule 144.

Rule 701

Any of our employees, directors, officers, consultants, advisors or service providers, other than a person who is deemed to have been one of our affiliates during the immediately preceding 90 days of the date of this prospectus, who purchased shares under a written compensatory plan or contract prior to this offering may be entitled to rely on the resale provisions of Rule 701. Rule 701, as currently in effect, permits resales of shares, in reliance upon Rule 144 but without compliance with certain restrictions, including the holding period requirement, of Rule 144. Rule 701 further provides that non-affiliates may sell such shares in reliance on Rule 144 without having to comply with the public information, volume limitation or notice provisions of Rule 144. All holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling such shares if such resale is pursuant to Rule 701. All Rule 701 shares are, however, subject to lock-up agreements and will only become eligible for sale upon the expiration of these lock-up agreements.

Lock-Up Agreements

In connection with this offering, we and each of our directors and officers and the holders of substantially all of our security holders have agreed with the underwriters, subject to certain exceptions, not to offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, shares of our Class A common stock or any securities convertible into or exchangeable for shares of our Class A common stock or Class B common stock or enter into any swap or other arrangement that transfers to another any of the economic consequences of ownership of our Class A common stock or Class B common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of the underwriters. These agreements are subject to certain exceptions.

Certain of our employees, including our executive officers, and directors may enter into written trading plans that are intended to comply with Rule 10b5-1 under the Exchange Act. Sales under these trading plans would not be permitted until the expiration of the lock-up agreements relating to our initial public offering described above.

Registration Rights

As of March 2024, certain holders of 89,030,591 shares of our Class A common stock, which includes all of the shares of Class A common stock issuable upon the automatic conversion of our convertible preferred stock (including Class A common stock issuable upon conversion of our Class B common stock) immediately upon the closing of this offering, or their transferees will be entitled to various rights with respect to the registration of these shares under the Securities Act upon the completion of this offering. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. Please see the section titled “Description of Capital Stock—Registration Rights” for a description of these registration rights.

Equity Plans

As of December 31, 2023, we had outstanding options to purchase an aggregate of shares of our Class A common stock under the 2012 Plan. Following this offering, we intend to file a registration statement on Form S-8 under the Securities Act to register all of the shares of our Class A common stock subject to options outstanding or reserved for issuance under the 2012 Plan, the 2024 Plan and the 2024 ESPP. We expect to file this registration statement as soon as practicable after the completion of this offering. This registration statement will become effective immediately upon filing, and shares covered by this registration statement will thereupon be eligible for sale in the public markets, subject to vesting restrictions, the lock-up agreements described above and Rule 144 limitations applicable to affiliates. For a more complete discussion of our stock plans, see “Executive Compensation—Equity Plans.”

MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES FOR NON-U.S. HOLDERS OF OUR CLASS A COMMON STOCK

The following is a general discussion of the material U.S. federal income tax considerations applicable to non-U.S. holders (as defined below) with respect to their ownership and disposition of shares of our Class A common stock issued pursuant to this offering. For purposes of this discussion, a "non-U.S. holder" means a beneficial owner of our Class A common stock (other than an entity or arrangement that is treated as a partnership for U.S. federal income tax purposes) that is not, for U.S. federal income tax purposes, any of the following:

- an individual citizen or resident of the United States;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized in the United States or under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is includable in gross income for U.S. federal income tax purposes regardless of its source; or
- a trust if (i) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more "U.S. persons," as defined under the Code, have the authority to control all substantial decisions of the trust or (ii) such trust has made a valid election to be treated as a U.S. person for U.S. federal income tax purposes.

This discussion is based on current provisions of the Code, existing, temporary and proposed Treasury Regulations promulgated thereunder, judicial opinions, published positions of the Internal Revenue Service (IRS) and other applicable authorities, all of which are subject to change or to differing interpretation, possibly with retroactive effect. This discussion assumes that a non-U.S. holder holds shares of our Class A common stock as a capital asset (generally, property held for investment) for U.S. federal income tax purposes.

This discussion does not address all aspects of U.S. federal income taxation that may be important to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any aspects of the unearned income Medicare contribution tax pursuant to the Health Care and Education Reconciliation Act of 2010, U.S. gift and estate tax laws, except to the limited extent provided below, any U.S. alternative minimum taxes or any state, local or non-U.S. taxes. This discussion may not apply, in whole or in part, to particular non-U.S. holders in light of their individual circumstances or to holders subject to special treatment under the U.S. federal income tax laws such as:

- insurance companies, banks, and other financial institutions;
- tax-exempt organizations (including private foundations) and tax-qualified retirement plans;
- "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to our Class A common stock being taken into account in an applicable financial statement;
- non-U.S. governments and international organizations;
- broker-dealers and traders in securities;
- U.S. expatriates and certain former citizens or long-term residents of the United States;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;

- persons that hold our Class A common stock as part of a "straddle," "hedge," "conversion transaction," "synthetic security," or integrated investment or other risk reduction strategy; and
- partnerships and other pass-through entities, and investors in such pass-through entities (regardless of their places of organization or formation).

Such non-U.S. holders are urged to consult their own tax advisors to determine the U.S. federal, state, local, and other tax consequences that may be relevant to them.

If a partnership (or other entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds our Class A common stock, the tax treatment of a partner therein will generally depend on the status of the partner and the activities of the partnership. Partners of a partnership holding our Class A common stock should consult their own tax advisors as to the particular U.S. federal income tax consequences applicable to them.

INVESTORS CONSIDERING THE PURCHASE OF OUR CLASS A COMMON STOCK SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE APPLICATION OF THE U.S. FEDERAL INCOME AND ESTATE TAX LAWS TO THEIR PARTICULAR SITUATIONS AND THE CONSEQUENCES OF NON-U.S., STATE, OR LOCAL LAWS AND TAX TREATIES.

Distributions on our Class A Common Stock

We do not expect to declare or make any distributions on our Class A common stock in the foreseeable future. If we do pay dividends on shares of our Class A common stock, however, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of our current and accumulated earnings and profits will constitute a return of capital that is applied against and reduces, but not below zero, a non-U.S. holder's adjusted tax basis in shares of our Class A common stock. Any excess will be treated as capital gain and will be subject to the treatment described below under "—Gain on Sale or Other Disposition of Class A Common Stock." Any distributions will also be subject to the discussion below under "—Backup Withholding and Information Reporting" and "—Foreign Account Tax Compliance Act."

Any distribution that is treated as a dividend paid to a non-U.S. holder on our Class A common stock that is not effectively connected with a non-U.S. holder's conduct of a trade or business in the United States will generally be subject to U.S. withholding tax at a 30% rate. The withholding tax might apply at a reduced rate, however, under the terms of an applicable income tax treaty between the United States and the non-U.S. holder's country of residence. You should consult your own tax advisors regarding your entitlement to benefits under a relevant income tax treaty. Generally, in order for us or our paying agent to withhold tax at a lower treaty rate, a non-U.S. holder must certify its entitlement to treaty benefits. A non-U.S. holder generally can meet this certification requirement by providing an IRS Form W-8BEN, W-8BEN-E or other appropriate form (or any successor or substitute form thereof) to us or our paying agent. If the non-U.S. holder holds the stock through a financial institution or other agent acting on the holder's behalf, the holder will be required to provide appropriate documentation to the holder's agent. The holder's agent will then be required to provide certification to us or our paying agent, either directly or through other intermediaries. If you are eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty, you may obtain a refund or credit of any excess amounts withheld by filing an appropriate claim for a refund with the IRS in a timely manner.

Dividends received by a non-U.S. holder that are effectively connected with a U.S. trade or business conducted by the non-U.S. holder, and if required by an applicable income tax treaty between the United States and the non-U.S. holder's country of residence, are attributable to a permanent

establishment maintained by the non-U.S. holder in the United States, are not subject to U.S. withholding tax. To obtain this exemption, a non-U.S. holder must provide us or our paying agent with an IRS Form W-8ECI properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits. In addition to being taxed at graduated tax rates, dividends received by a corporate non-U.S. holder that are effectively connected with a U.S. trade or business of the corporate non-U.S. holder may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable tax treaty.

Gain on Sale or Other Disposition of Class A Common Stock

Subject to the discussion below under "—Backup Withholding and Information Reporting" and "—Foreign Account Tax Compliance Act," non-U.S. holders will generally not be subject to U.S. federal income tax on any gains realized on the sale, exchange or other disposition of our Class A common stock unless:

- the gain (i) is effectively connected with the conduct by the non-U.S. holder of a U.S. trade or business and (ii) if required by an applicable income tax treaty between the United States and the non-U.S. holder's country of residence, is attributable to a permanent establishment maintained by the non-U.S. holder in the United States (in which case the special rules described below apply);
- the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of the sale, exchange or other disposition of our Class A common stock, and certain other requirements are met (in which case the gain would be subject to a flat 30% tax, or such reduced rate as may be specified by an applicable income tax treaty, which may be offset by U.S. source capital losses, even though the individual is not considered a resident of the United States); or
- the rules of the Foreign Investment in Real Property Tax Act (FIRPTA) treat the gain as effectively connected with a U.S. trade or business.

The FIRPTA rules may apply to a sale, exchange or other disposition of our Class A common stock if we are, or were within the shorter of the five-year period preceding the disposition and the non-U.S. holder's holding period, a "U.S. real property holding corporation," (USRPHC) under the Code. In general, we would be a USRPHC if interests in U.S. real estate comprised at least half of the value of our business assets. We do not believe that we are a USRPHC and we do not anticipate becoming one in the future. Even if we are or were to become a USRPHC, gain arising from the sale or other taxable disposition by a non-U.S. holder will not be subject to U.S. federal income tax if our Class A common stock is "regularly traded," as defined by applicable Treasury Regulations, on an established securities market, and such non-U.S. holder owned, actually and constructively, five percent or less of our Class A common stock throughout the shorter of the five-year period ending on the date of the sale or other taxable disposition or the non-U.S. holder's holding period.

If any gain from the sale, exchange or other disposition of our Class A common stock, (i) is effectively connected with a U.S. trade or business conducted by a non-U.S. holder and (ii) if required by an applicable income tax treaty between the United States and the non-U.S. holder's country of residence, is attributable to a permanent establishment maintained by such non-U.S. holder in the United States, then the gain generally will be subject to U.S. federal income tax at the same graduated rates applicable to U.S. persons, net of certain deductions and credits. If the non-U.S. holder is a corporation, under certain circumstances, that portion of its earnings and profits that is effectively connected with its U.S. trade or business, subject to certain adjustments, generally would be subject also to a "branch profits tax" at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty.

Backup Withholding and Information Reporting

We must report annually to the IRS and to each non-U.S. holder the amount of dividends paid to, and the tax withheld with respect to, each non-U.S. holder. These reporting requirements apply regardless of whether withholding was reduced or eliminated by an applicable tax treaty. Copies of this information reporting may also be made available under the provisions of a specific tax treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established.

A non-U.S. holder will generally be subject to backup withholding for dividends on our Class A common stock paid to such holder unless such holder certifies under penalties of perjury that, among other things, it is a non-U.S. holder (and the payer does not have actual knowledge or reason to know that such holder is a U.S. person) or otherwise establishes an exemption. Generally, a non-U.S. holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or W-8BEN-E or otherwise establishes an exemption.

Information reporting and backup withholding generally are not required with respect to the amount of any proceeds from the sale or other disposition of our Class A common stock by a non-U.S. holder outside the United States through a foreign office of a foreign broker that does not have certain specified connections to the United States. However, if a non-U.S. holder sells or otherwise disposes of its shares of Class A common stock through a U.S. broker or the U.S. offices of a foreign broker, the broker will generally be required to report the amount of proceeds paid to the non-U.S. holder to the IRS and impose backup withholding on that amount unless such non-U.S. holder provides appropriate certification to the broker of its status as a non-U.S. holder (and the payer does not have actual knowledge or reason to know that such holder is a U.S. person) or otherwise establishes an exemption.

Backup withholding is not an additional income tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder generally can be credited against the non-U.S. holder's U.S. federal income tax liability, if any, or refunded, provided that the required information is furnished to the IRS in a timely manner. Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them.

Foreign Account Tax Compliance Act

Under the Foreign Account Tax Compliance Act (FATCA), withholding tax of 30% applies to certain payments to foreign financial institutions, investment funds and certain other non-U.S. persons that fail to comply with certain information reporting and certification requirements pertaining to their direct and indirect U.S. securityholders and/or U.S. accountholders and do not otherwise qualify for an exemption. Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends on our common stock. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of our common stock on or after January 1, 2019, proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our Class A common stock.

Federal Estate Tax

The estates of nonresident alien individuals generally are subject to U.S. federal estate tax on property with a U.S. situs. Because we are a U.S. corporation, Class A common stock we have issued

that is owned (or treated as owned) by an individual who is not a citizen or a resident of the United States (as defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes unless an applicable estate or other tax treaty provides otherwise, and therefore may be subject to U.S. federal estate tax. Investors are urged to consult their own tax advisors regarding the U.S. federal estate tax consequences of the ownership or disposition of our Class A common stock.

PROSPECTIVE INVESTORS SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE POTENTIAL APPLICATION OF WITHHOLDING UNDER FATCA TO THEIR INVESTMENT IN OUR CLASS A COMMON STOCK. THE PRECEDING DISCUSSION OF U.S. FEDERAL TAX CONSIDERATIONS IS FOR GENERAL INFORMATION PURPOSES ONLY. IT IS NOT TAX ADVICE. EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE PARTICULAR U.S. FEDERAL, GIFT, ESTATE, STATE, LOCAL, AND NON-U.S. TAX CONSEQUENCES OF PURCHASING, HOLDING, AND DISPOSING OF OUR CLASS A COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY PROPOSED CHANGE IN APPLICABLE LAWS.

UNDERWRITING

We and the underwriters named below have entered into an underwriting agreement with respect to the shares being offered. Subject to certain conditions, each underwriter has severally agreed to purchase the number of shares indicated in the following table. Goldman Sachs & Co. LLC and Morgan Stanley & Co. LLC are the representatives of the underwriters.

Underwriters	Number of Shares
Goldman Sachs & Co. LLC	
Morgan Stanley & Co. LLC	
Stifel, Nicolaus & Company, Incorporated	
RBC Capital Markets, LLC	
Total	

The underwriters are committed to take and pay for all of the shares being offered, if any are taken, other than the shares covered by the option described below unless and until this option is exercised.

The underwriters have an option to buy up to an additional shares of our Class A common stock from us to cover sales by the underwriters of a greater number of shares than the total number set forth in the table above. They may exercise that option for 30 days. If any shares are purchased pursuant to this option, the underwriters will severally purchase shares in approximately the same proportion as set forth in the table above.

The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters by us. Such amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional shares of Class A common stock.

	Paid by the Company	
	No Exercise	Full Exercise
Per Share	$	$
Total	$	$

Shares sold by the underwriters to the public will initially be offered at the initial public offering price set forth on the cover of this prospectus. Any shares sold by the underwriters to securities dealers may be sold at a discount of up to $ per share from the initial public offering price. After the initial offering of the shares, the representatives may change the offering price and the other selling terms. The offering of the shares by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

We and our officers, directors, and holders of substantially all of our capital stock and securities convertible into or exchangeable for our Class A common stock have agreed or will agree with the underwriters, subject to certain exceptions, not to dispose of or hedge any of our or their Class A common stock or securities convertible into or exchangeable for shares of Class A common stock during the period from the date of this prospectus continuing through the date 180 days after the date of this prospectus, except with the prior written consent of Goldman Sachs & Co. LLC and Morgan Stanley. This agreement does not apply to any existing employee benefit plans. See the section titled "Shares Eligible for Future Sale" for a discussion of certain transfer restrictions.

Prior to the offering, there has been no public market for the shares of our Class A common stock. The initial public offering price will be negotiated among the company and the representatives.

Among the factors to be considered in determining the initial public offering price of the shares, in addition to prevailing market conditions, will be the company's historical performance, estimates of the business potential and earnings prospects of the company, an assessment of our management and the consideration of the above factors in relation to market valuation of companies in related businesses.

An application has been made to quote the common stock on the Nasdaq Global Select Market under the symbol "CTNM."

In connection with the offering, the underwriters may purchase and sell shares of our Class A common stock in the open market. These transactions may include short sales, stabilizing transactions and purchases to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering, and a short position represents the amount of such sales that have not been covered by subsequent purchases. A "covered short position" is a short position that is not greater than the amount of additional shares for which the underwriters' option described above may be exercised. The underwriters may cover any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to cover the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase additional shares pursuant to the option described above. "Naked" short sales are any short sales that create a short position greater than the amount of additional shares for which the option described above may be exercised. The underwriters must cover any such naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the Class A common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of Class A common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of our Class A common stock, and together with the imposition of the penalty bid, may stabilize, maintain or otherwise affect the market price of our Class A common stock. As a result, the price of our Class A common stock may be higher than the price that otherwise might exist in the open market. The underwriters are not required to engage in these activities and may end any of these activities at any time. These transactions may be effected on Nasdaq, in the over-the-counter market or otherwise.

We estimate that our share of the total expenses of the offering, excluding underwriting discounts and commissions, will be approximately $ million. We have agreed to reimburse the underwriters for certain of their expenses in an amount up to $.

We have agreed to indemnify the several underwriters against certain liabilities, including liabilities under the Securities Act.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory,

investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to us and to persons and entities with relationships with us, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of ours (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with us. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

European Economic Area

This prospectus is not a prospectus for the purposes of Regulation (EU) 2017/1129, as amended (Prospectus Regulation). This prospectus and any offer if made subsequently is directed only at persons in Member States of the EEA, each referred to as a Relevant State, who are “qualified investors” within the meaning of Article 2(e) of the Prospectus Regulation. This prospectus been prepared on the basis that any offer of shares in any Relevant State of the EEA will be made pursuant to an exemption under the Prospectus Regulation from the requirement to publish a prospectus for offers of shares. Accordingly any person making or intending to make an offer in a Relevant State of the EEA of shares which are the subject of the offering contemplated in this prospectus may only do so in circumstances in which no obligation arises for us or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Regulation in relation to such offer. Neither we nor the underwriters have authorized, nor do we or they authorize, the making of any offer of shares in the EEA in circumstances in which an obligation arises for us or the underwriters to publish a prospectus for such offer.

In relation to each Relevant State, no shares have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that the shares may be offered to the public in that Relevant State at any time:

(a) to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of the shares shall require us or any of the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to the shares in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares.

United Kingdom

In the United Kingdom, this prospectus is not a prospectus for the purposes of Regulation (EU) 2017/1129 as it forms part of domestic law in the United Kingdom by virtue of the European Union (Withdrawal) Act 2018, as amended (EUWA), referred to as the UK Prospectus Regulation. This prospectus has been prepared on the basis that any offer if made subsequently is directed only at persons in the United Kingdom who are "qualified investors" within the meaning of Article 2(e) of the UK Prospectus Regulation. This prospectus has been prepared on the basis that any offer of shares in the United Kingdom will be made pursuant to an exemption under the UK Prospectus Regulation from the requirement to publish a prospectus for offers of shares. Accordingly any person making or intending to make an offer in the United Kingdom of shares which are the subject of the offering contemplated in this offering may only do so in circumstances in which no obligation arises for us or any of the underwriters to publish a prospectus pursuant to Section 85 of the United Kingdom's Financial Services and Markets Act 2000, as amended (FSMA) in relation to such offer. Neither we nor the underwriters have authorized, nor do we or they authorize, the making of any offer of ordinary shares in circumstances in which an obligation arises for us or the underwriters to publish a prospectus for such offer.

Any invitation or inducement to engage in investment activity (within the meaning of Section 21 of the FSMA) in connection with the issue or sale of the ordinary shares may only be communicated or caused to be communicated in circumstances in which Section 21(1) of the FSMA does not apply to us.

All applicable provisions of the FSMA must be complied with in respect to anything done by any person in relation to the ordinary shares in, from or otherwise involving the United Kingdom.

No shares have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares which has been approved by the Financial Conduct Authority, except that the shares may be offered to the public in the United Kingdom at any time:

(a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Section 86 of the FSMA.

provided that no such offer of the shares shall require us or the underwriters to publish a prospectus pursuant to Section 85 of the FSMA. For the purposes of this provision, the expression an "offer to the public" in relation to the shares in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares to be offered so as to enable an investor to decide to purchase or subscribe for any shares.

This prospectus may not be distributed or circulated to any person in the United Kingdom other than to (i) persons who have professional experience in matters relating to investments falling within

Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, referred to in this section as the Order. and (ii) high net worth entities falling within Article 49(2)(a) to (d) of the Order, referred to as relevant persons. This prospectus is directed only at relevant persons. Other persons should not act on this prospectus or any of its contents. This prospectus is confidential and is being supplied to you solely for your information and may not be reproduced, redistributed or passed on to any other person or published, in whole or in part, for any other purpose.

Canada

The securities may be sold in Canada only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions, and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption form, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Hong Kong

The shares have not been and will not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) (the C(WUMP)O) or (ii) to "professional investors" as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong (the SFO)) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" as defined in the C(WUMP)O) no advertisement, invitation or document relating to the shares has been or will be issued or has been or will be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" in Hong Kong as defined in the SFO and any rules made thereunder.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares may not be circulated or distributed, nor may the shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an

institutional investor (as defined under Section 4A of the Securities and Futures Act, Chapter 289 of Singapore (the SFA)) under Section 274 of the SFA, (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, and in accordance with the conditions specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA, in each case subject to conditions set forth in the SFA.

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor, the securities (as defined in Section 239(1) of the SFA) of that corporation shall not be transferable for 6 months after that corporation has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer in that corporation's securities pursuant to Section 275(1A) of the SFA, (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore (Regulation 32).

Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is a trust (where the trustee is not an accredited investor (as defined in Section 4A of the SFA)) whose sole purpose is to hold investments and each beneficiary of the trust is an accredited investor, the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferable for 6 months after that trust has acquired the shares under Section 275 of the SFA except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person (as defined in Section 275(2) of the SFA), (2) where such transfer arises from an offer that is made on terms that such rights or interest are acquired at a consideration of not less than $200,000 (or its equivalent in a foreign currency) for each transaction (whether such amount is to be paid for in cash or by exchange of securities or other assets), (3) where no consideration is or will be given for the transfer, (4) where the transfer is by operation of law, (5) as specified in Section 276(7) of the SFA, or (6) as specified in Regulation 32.

Solely for the purposes of its obligations pursuant to Section 309B of the SFA, we have determined, and hereby notify all relevant persons (as defined in the CMP Regulations 2018), that the shares are "prescribed capital markets products" (as defined in the CMP Regulations 2018) and Excluded Investment Products (as defined in MAS Notice SFA 04-N12: Notice on the Sale of Investment Products and MAS Notice FAA-N16: Notice on Recommendations on Investment Products).

Japan

The securities have not been and will not be registered under the Financial Instruments and Exchange Act of Japan (Act No. 25 of 1948, as amended) (FIEA). The securities may not be offered or sold, directly or indirectly, in Japan or to or for the benefit of any resident of Japan (including any person resident in Japan or any corporation or other entity organized under the laws of Japan) or to others for reoffering or resale, directly or indirectly, in Japan or to or for the benefit of any resident of Japan, except pursuant to an exemption from the registration requirements of the FIEA and otherwise in compliance with any relevant laws and regulations of Japan.

Australia

No placement document, prospectus, product disclosure statement or other disclosure document has been lodged with the Australian Securities and Investments Commission (ASIC), in relation to the offering. This offering document does not constitute a prospectus, product disclosure statement or other disclosure document under the Corporations Act 2001 (the Corporations Act), and does not purport to include the information required for a prospectus, product disclosure statement or other disclosure document under the Corporations Act.

Any offer in Australia of the shares may only be made to persons (the Exempt Investors) who are "sophisticated investors" (within the meaning of section 708(8) of the Corporations Act), "professional investors" (within the meaning of section 708(11) of the Corporations Act) or otherwise pursuant to one or more exemptions contained in section 708 of the Corporations Act so that it is lawful to offer the shares without disclosure to investors under Chapter 6D of the Corporations Act.

The shares applied for by Exempt Investors in Australia must not be offered for sale in Australia in the period of 12 months after the date of allotment under the offering, except in circumstances where disclosure to investors under Chapter 6D of the Corporations Act would not be required pursuant to an exemption under section 708 of the Corporations Act or otherwise or where the offer is pursuant to a disclosure document which complies with Chapter 6D of the Corporations Act. Any person acquiring shares must observe such Australian on-sale restrictions.

This offering document contains general information only and does not take account of the investment objectives, financial situation or particular needs of any particular person. It does not contain any securities recommendations or financial product advice. Before making an investment decision, investors need to consider whether the information in this offering document is appropriate to their needs, objectives and circumstances, and, if necessary, seek expert advice on those matters.

Dubai International Financial Centre

This offering document relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority (DFSA). This offering document is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth in this prospectus and has no responsibility for the offering document. The securities to which this offering document relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the securities offered should conduct their own due diligence on the securities. If you do not understand the contents of this offering document you should consult an authorized financial advisor.

Switzerland

We have not and will not register with the Swiss Financial Market Supervisory Authority (FINMA) as a foreign collective investment scheme pursuant to Article 119 of the Federal Act on Collective Investment Scheme of 23 June 2006, as amended (CISA), and accordingly the securities being offered pursuant to this prospectus have not and will not be approved, and may not be licenseable, with FINMA. Therefore, the securities have not been authorized for distribution by FINMA as a foreign collective investment scheme pursuant to Article 119 CISA and the securities offered hereby may not be offered to the public (as this term is defined in Article 3 CISA) in or from Switzerland. The securities may solely be offered to "qualified investors," as this term is defined in Article 10 CISA, and in the

circumstances set out in Article 3 of the Ordinance on Collective Investment Scheme of 22 November 2006, as amended (CISO), such that there is no public offer. Investors, however, do not benefit from protection under CISA or CISO or supervision by FINMA. This prospectus and any other materials relating to the securities are strictly personal and confidential to each offeree and do not constitute an offer to any other person. This prospectus may only be used by those qualified investors to whom it has been handed out in connection with the offer described in this prospectus and may neither directly or indirectly be distributed or made available to any person or entity other than its recipients. It may not be used in connection with any other offer and shall in particular not be copied and/or distributed to the public in Switzerland or from Switzerland. This prospectus does not constitute an issue prospectus as that term is understood pursuant to Article 652a and/or 1156 of the Swiss Federal Code of Obligations. We have not applied for a listing of the securities on the SIX Swiss Exchange or any other regulated securities market in Switzerland, and consequently, the information presented in this prospectus does not necessarily comply with the information standards set out in the listing rules of the SIX Swiss Exchange and corresponding prospectus schemes annexed to the listing rules of the SIX Swiss Exchange.

LEGAL MATTERS

The validity of the issuance of our Class A common stock offered in this prospectus will be passed upon for us by Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP, San Diego, California. Sidley Austin LLP, San Francisco, California, is representing the underwriters in this offering.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements at December 31, 2022 and 2023 and for the years then ended, as set forth in their report. We've included our financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of Class A common stock offered by this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits, schedules and amendments to the registration statement. Please refer to the registration statement and to the exhibits and schedules for further information with respect to the Class A common stock offered by this prospectus. Statements contained in this prospectus regarding the contents of any contract, agreement or other document are only summaries. With respect to any contract, agreement or document that is filed as an exhibit to the registration statement, you should refer to the exhibit for a copy of the contract, agreement or document, and each statement in this prospectus regarding that contract, agreement or document is qualified by reference to the exhibit. The SEC maintains an Internet website that contains the registration statement of which this prospectus forms a part, as well as the exhibits thereto. These documents, along with future reports, proxy statements and other information about us, are available at the SEC's website, www.sec.gov. The information on the SEC's web site is not part of this prospectus, and any references to this web site or any other web site are inactive textual references only.

Upon completion of this offering, we will become subject to the information and reporting requirements of the Exchange Act, and, in accordance with this law, will be required to file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information will be available on the SEC's website referred to above. We also maintain a website at www.contineum-tx.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. The information contained on, or that can be accessed through, our website is not a part of this prospectus. Investors should not rely on any such information in deciding whether to purchase our Class A common stock. We have included our website address in this prospectus solely as an inactive textual reference.

CONTINEUM THERAPEUTICS, INC.

INDEX TO THE FINANCIAL STATEMENTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of Contineum Therapeutics, Inc.

Opinion on the Financial Statements

We have audited the accompanying balance sheets of Contineum Therapeutics, Inc. (the "Company") as of December 31, 2022 and 2023, the related statements of operations and comprehensive income (loss), convertible preferred stock and stockholders' deficit, and cash flows for the years then ended, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2022 and 2023, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2020.

San Diego, California
February 15, 2024

CONTINEUM THERAPEUTICS, INC.
BALANCE SHEETS
(in thousands, except share and par value data)

	December 31, 2022	December 31, 2023
Assets		
Current assets:		
Cash and cash equivalents	$ 5,569	$ 15,526
Marketable securities	41,670	109,664
Prepaid expenses and other current assets	1,153	2,516
Total current assets	48,392	127,706
Property and equipment, net	431	678
Other long-term assets	129	1,283
Operating lease right-of-use assets	1,684	719
Total assets	$ 50,636	$ 130,386
Liabilities, convertible preferred stock and stockholders' deficit		
Current liabilities:		
Accounts payable	$ 430	$ 635
Accrued expenses	2,062	4,385
Current portion of long-term debt, net	3,948	—
Current portion of operating lease liabilities	1,110	464
Total current liabilities	7,550	5,484
Investor rights and obligations liability	2,867	—
Other long-term liabilities	158	110
Operating lease liabilities, net of current portion	791	108
Total liabilities	11,366	5,702
Commitments and contingencies (See Note 12)		
Convertible preferred stock, $0.001 par value; authorized shares—66,819,899 and 94,819,899 at December 31, 2022 and December 31, 2023; issued shares and outstanding shares—66,549,019 and 89,030,591 at December 31, 2022 and December 31, 2023; $193,462 aggregate liquidation preference at December 31, 2023	132,482	192,620
Stockholders' deficit:		
Common stock, $0.001 par value; authorized shares—160,819,899 and 221,819,899 at December 31, 2022 and December 31, 2023; issued shares—12,773,728 and 13,151,230 at December 31, 2022 and December 31, 2023; outstanding shares—12,648,489 and 13,151,230 at December 31, 2022 and December 31, 2023	12	13
Additional paid-in-capital	4,716	7,087
Accumulated deficit	(97,864)	(75,144)
Accumulated other comprehensive income (loss)	(76)	108
Total stockholders' deficit	(93,212)	(67,936)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 50,636	$ 130,386

The accompanying notes are an integral part of these financial statements.

CONTINEUM THERAPEUTICS, INC.
STATEMENTS OF OPERATIONS AND COMPREHENSIVE INCOME (LOSS)
(in thousands, except share and per share data)

	Years Ended December 31,	
	2022	2023
Revenue		
License revenue	$ —	$ 50,000
Operating expenses:		
Research and development	16,894	27,603
General and administrative	5,826	6,320
Total operating expenses: .	22,720	33,923
Income (loss) from operations	(22,720)	16,077
Other income (expense):		
Interest income	761	4,606
Interest expense	(388)	(208)
Change in fair value of preferred stock warrant liability	3	5
Change in fair value of investor rights and obligations liability	(1,817)	2,867
Other expense, net	(92)	(177)
Total other income (expense)	(1,533)	7,093
Income (loss) before income taxes	(24,253)	23,170
Provision for income taxes	—	450
Net income (loss)	$ (24,253)	$ 22,720
Other comprehensive income (loss):		
Unrealized gain (loss) on marketable securities	(41)	184
Comprehensive income (loss)	$ (24,294)	$ 22,904
Net income (loss) attributable to common stockholders, basic	$ (24,253)	$ 3,146
Net income (loss) attributable to common stockholders, diluted	$ (24,253)	$ 274
Net income (loss) per share, basic	$ (1.93)	$ 0.24
Net income (loss) per share, diluted	$ (1.93)	$ 0.01
Weighted-average common shares outstanding, basic	12,554,891	12,923,777
Weighted-average common shares outstanding, diluted	12,554,891	19,005,369

The accompanying notes are an integral part of these financial statements.

CONTINEUM THERAPEUTICS, INC.
STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' DEFICIT
(in thousands, except share data)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balance at December 31, 2021	66,549,019	$ 132,482	12,304,967	$ 12	$ 2,740	$ (35)	$ (73,611)	$ (70,894)
Vesting of shares of common stock subject to repurchase	—	—	333,522	—	34	—	—	34
Exercise of stock options	—	—	10,000	—	15	—	—	15
Stock-based compensation expense	—	—	—	—	1,927	—	—	1,927
Net loss	—	—	—	—	—	—	(24,253)	(24,253)
Unrealized loss on marketable securities	—	—	—	—	—	(41)	—	(41)
Balance at December 31, 2022	66,549,019	$ 132,482	12,648,489	$ 12	$ 4,716	$ (76)	$ (97,864)	$ (93,212)
Vesting of shares of common stock subject to repurchase	—	—	125,176	1	21	—	—	22
Issuance of Series C convertible preferred stock, net of offering costs of $110	22,481,572	60,138	—	—	—	—	—	—
Exercise of stock options	—	—	392,565	—	159	—	—	159
Stock-based compensation expense	—	—	—	—	2,219	—	—	2,219
Repurchase of stock options	—	—	(15,000)	—	(28)	—	—	(28)
Net income	—	—	—	—	—	—	22,720	22,720
Unrealized loss on marketable securities	—	—	—	—	—	184	—	184
Balance at December 31, 2023	89,030,591	$ 192,620	13,151,230	$ 13	$ 7,087	$ 108	$ (75,144)	$ (67,936)

CONTINEUM THERAPEUTICS, INC.
STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,	
	2022	2023
Operating activities		
Net income (loss)	$(24,253)	$ 22,720
Adjustments to reconcile net income (loss) to cash used in operating activities:		
Depreciation and amortization	329	195
Non-cash operating lease expense	926	965
Stock-based compensation	1,927	2,219
Non-cash interest expense	1	—
Amortization (accretion) of debt discount and debt issuance costs	154	(198)
Amortization (accretion) of premiums/discounts on investments, net	252	(2,675)
Change in fair value of preferred stock warrant liability	(3)	(5)
Change in fair value of investor rights and obligations liability	1,817	(2,867)
Loss on disposal of property and equipment	2	—
Gain (loss) on marketable securities	(6)	19
Changes in operating assets and liabilities		
Prepaid expenses and other current assets	(378)	(1,277)
Other long-term assets	(32)	7
Accounts payable	(230)	—
Accrued expenses	298	1,594
Other long-term liabilities	(215)	(20)
Operating lease liabilities	(710)	(1,328)
Net cash provided by (used in) operating activities	(20,121)	19,349
Investing activities		
Purchase of property and equipment	(118)	(414)
Purchases of marketable securities	(64,699)	(141,866)
Sales and maturities of marketable securities	87,116	76,712
Net cash provided by (used in) investing activities	22,299	(65,568)
Financing activities		
Proceeds from issuance of Series C convertible preferred stock, net of offering costs	—	60,138
Payments of deferred offering costs	—	(343)
Principal payments on debt	(1,250)	(3,750)
Proceeds from exercise of stock options .	15	159
Repurchase of restricted stock	(4)	(28)
Net cash provided by (used in) financing activities	(1,239)	56,176
Net increase in cash and cash equivalents	939	9,957
Cash and cash equivalents at beginning of year	4,630	5,569
Cash and cash equivalents at end of year	$ 5,569	$ 15,526
Supplemental disclosure of cash flow information		
Income taxes paid	$ —	$ 450
Interest paid	$ 225	$ 150
Supplemental disclosure of noncash investing and financing activities		
Deferred offering costs included in accounts payable and accrued liabilities	$ —	$ 905
Property and equipment purchases included in accounts payable	$ —	$ 30
Right-of-use assets obtained in exchange for lease liabilities	$ 2,610	$ —

The accompanying notes are an integral part of these financial statements.

NOTES TO AUDITED FINANCIAL STATEMENTS

1. Organization and Basis of Presentation

Organization and Nature of Operations

Contineum Therapeutics, Inc. (the "Company"), is a clinical stage biopharmaceutical company focused on discovering and developing novel, oral small molecule therapies for neuroscience, inflammation and immunology indications with high unmet need. The Company, formerly named Sirocco Therapeutics, Inc. ("Sirocco" or "legacy Sirocco"), Inception 3, Inc. ("Inception") and Versense Pharmaceuticals, Inc. ("Versense"), was incorporated in the state of Delaware in 2009 as Versense. Versense changed its name to Inception on October 25, 2011, and commenced active operations on July 13, 2012. In May 2018, Inception changed its name to Sirocco. A separate entity named Pipeline Therapeutics, Inc. ("legacy Pipeline") was founded and incorporated in the state of Delaware on May 9, 2017. On May 7, 2019, legacy Sirocco acquired legacy Pipeline in a merger transaction (the "Merger"). As of December 31, 2019, legacy Pipeline was a wholly owned subsidiary of legacy Sirocco. In January 2020, legacy Pipeline was merged into legacy Sirocco and ceased to exist, and legacy Sirocco changed its name to Pipeline Therapeutics, Inc. In November 2023, Pipeline Therapeutics, Inc. changed its name to Contineum Therapeutics, Inc.

Liquidity and Capital Resources

Since its inception, the Company has devoted substantially all its resources to research and development activities, business planning, establishing and maintaining its intellectual property portfolio, hiring personnel, raising capital to support and expand such activities and providing general and administrative support for these operations. The Company incurred a net loss of $24.3 million for the year ended December 31, 2022 and net income of $22.7 million for the year ended December 31, 2023 due to a license agreement, dated February 3, 2023, by and between the Company and Johnson and Johnson Innovative Medicine (the "J&J License Agreement"). The Company had an accumulated deficit of $75.1 million as of December 31, 2023. From its inception through December 31, 2023, the Company has financed its operations primarily through issuance of convertible promissory notes, convertible preferred stock financings, a term loan and the J&J License Agreement.

As of December 31, 2023, the Company had cash, cash equivalents and marketable securities of $125.2 million. Management believes that it has sufficient working capital on hand to fund operations through at least the end of 2025.

As the Company continues to pursue its business plan, it expects to finance its operations through both public and private sales of equity, debt financings or other commercial arrangements, which could include income from collaborations, strategic partnerships or marketing, distribution, licensing or other strategic arrangements with third parties. However, there can be no assurance that any additional financing or strategic transactions will be available to the Company on acceptable terms, if at all. If events or circumstances occur such that the Company does not obtain additional funding, it may need to delay, reduce or eliminate its product development or future commercialization efforts, which could have a material adverse effect on the Company's business, results of operations, financial condition and cash flows. Further, if the Company raises funds through licensing or other similar arrangements with third parties, it may be required to relinquish valuable rights to its technology, future revenue streams, research programs or drug candidates or may be required to grant licenses on terms that may not be favorable to it and/or may reduce the value of its common stock.

Basis of Presentation

The Company's financial statements are prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP").

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the Company's financial statements and accompanying notes. Accounting estimates and management judgments reflected in the financial statements include: the accrual of research and development expenses; the incremental borrowing rate used to recognize the right-of-use assets and lease liabilities, the fair value of common stock and convertible preferred stock; stock-based compensation; and the fair value of the investor preferred stock purchase rights and obligations liability. Although these estimates are based on the Company's knowledge of current events and actions it may undertake in the future, actual results may materially differ from these estimates and assumptions.

Concentration of Credit Risk

Financial instruments which potentially subject the Company to significant concentration of credit risk consist of cash, cash equivalents and marketable securities. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts, and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. However, to the extent the Company holds cash deposits in amounts that exceed the FDIC insurance limitation, it may incur a loss in the event of a failure of any of the financial institutions where it maintains deposits.

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as a change in equity during a period from transactions and other events and circumstances from non-owner sources.

Fair Value of Financial Instruments

The accounting guidance defines fair value, establishes a consistent framework for measuring fair value, and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less at the date of purchase to be cash equivalents. Cash equivalents primarily represent funds invested in readily available money market accounts and short-term securities. As of December 31, 2022 and 2023, the Company had cash and cash equivalents balances deposited at major financial institutions.

Marketable Securities

The Company classifies all marketable debt securities as available for sale, as the sale of such securities may be required prior to maturity. These marketable securities are carried at fair value, with unrealized gains and losses reported in accumulated other comprehensive income (loss) until realized. The cost of debt securities is adjusted for amortization of premiums and accretion of discounts to

maturity. Such amortization and accretion, as well as interest and dividends, are included in interest income. Realized gains and losses from the sale of available for sale securities, if any, are determined on a specific identification basis and are also included in interest income. The Company's marketable securities are classified as current assets, even though the stated maturity date may be one year or more beyond the current balance sheet date, which reflects management's ability and intent to use the proceeds from sales of these securities to fund its operations, as necessary.

Property and Equipment, Net

Property and equipment, which consist of leasehold improvements, furniture and fixtures, research equipment, computers and software are stated at cost less accumulated depreciation and amortization. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the assets, which ranges from two to five years. Leasehold improvements are amortized over the shorter of the estimated useful life of the asset and remaining life of the lease for leasehold improvements at the time the asset is placed into service.

Leases

The Company applies Accounting Standards Codification ("ASC") 842, *Leases* which requires the Company to determine if a contract contains a lease at the inception of the contract and evaluate each lease agreement to determine whether the lease is an operating or finance lease. For leases where the Company is the lessee, right-of-use ("ROU") assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent an obligation to make lease payments arising from the lease. Liabilities from operating leases are included in current portion of operating lease liabilities, and operating lease liabilities, net of current portion on the accompanying balance sheets (see Note 12 for a summary of the Company's right-of-use-assets and lease liabilities as of December 31, 2023). The Company does not have any financing leases. Short-term leases with an initial term of 12 months or less are not recorded on the balance sheet. The Company does not have material short-term lease costs.

Lease liabilities are measured at the present value of the remaining lease payments discounted using the discount rate for the lease established at the lease commencement date. To determine the present value, the implicit rate is used when readily determinable. For those leases where the implicit rate is not provided, the Company determines an incremental borrowing rate based on the information available at the lease commencement date in determining the present value of lease payments. ROU assets are measured as the present value of the lease payments and also include any prepaid lease payments made and any other indirect costs incurred, and reduced by any lease incentives received. Lease terms may include the impact of options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for operating leases is recognized on a straight-line basis over the lease term. The Company's operating leases are subject to additional variable charges, including common area maintenance, property taxes, property insurance and other variable costs. Variable lease costs are experienced in the period incurred The Company has elected the practical expedient to account for the lease and non-lease components, such as common area maintenance charges, as a single lease component for the Company's facilities leases.

Revenue Recognition

The Company currently has no product revenue. The Company generates revenues from the J&J License Agreement, in which the Company transferred to J&J the worldwide rights to develop, manufacture, and commercialize products containing PIPE-307. Revenue for the J&J License Agreement is recognized in accordance with ASC 606, *Revenue from Contracts with Customers* ("ASC 606"). Revenue is recognized when control of the promised goods or services are transferred to the

customer, in an amount that reflects the consideration the Company expects to be entitled to in exchange for transferring those goods or services. The steps for recognizing revenue consist of: (1) identifying the contract; (2) identifying the distinct performance obligations; (3) determining the transaction price for which the Company expects to be entitled in exchange for the goods and services; (4) allocating the transaction price to the performance obligations in the contract; and (5) recognizing revenue when or as the performance obligations are satisfied.

The Company allocates fixed and variable consideration based on relative standalone selling prices, unless an allocation exception for variable consideration is met. The allocated transaction price is recognized when (or as) each respective performance obligation is satisfied. For performance obligations that are satisfied at a point in time, the Company evaluates the indicators of control in ASC 606 to determine the point in time upon which control is transferred and therefore the performance obligation is satisfied. For performance obligations that are satisfied over time, the Company uses a measure of progress that best reflects the Company's effort in satisfying the respective performance obligation to recognize revenue. The measure of progress is subject to estimates by management and may change over the course of the agreement.

A contract modification is a change in the scope or price (or both) of a contract that is approved by the parties to the contract. A contract modification exists when the rights and obligations that are created or changed by a modification are enforceable. The Company accounts for a contract modification as a separate contract when the scope of the contract increases, and the price of the contract increases by an amount that reflects the standalone selling prices of the additional promised goods or services that are distinct. If a contract modification is not accounted for as a separate contract, the Company's accounting of the contract modification depends on whether the remaining goods or services are distinct from those already provided on or before the date of the contract modification. If the remaining goods or services are distinct from those already provided, the Company accounts for the contract modification as a termination of the existing contract and creation of a new contract. The amount of the consideration to be allocated to the remaining performance obligations consists of the consideration promised by the customer that was included in the estimate of the transaction price for the existing contract and that had not been recognized as revenues and the consideration promised as part of the contract modification. If the remaining goods or services are not distinct from those already provided, the Company accounts for the contract modification as if it were part of the existing contract and accounts for the effect that the contract modification has on the transaction price, and on the measure of progress toward complete satisfaction of the performance obligation, as a cumulative catch-up adjustment at the date of the contract modification.

Contractual Terms for Receipt of Payments

The contractual terms that establish the Company's right to collect specified amounts from its customers and that require contemporaneous evaluation and documentation under U.S. GAAP for the corresponding timing and amount of revenue recognition, are as follows:

(1) ***Upfront License Fees:*** The Company allocates non-refundable license fee consideration to the distinct performance obligations identified in the contract on a relative standalone selling price basis and recognizes those amounts when or as each performance obligation is satisfied. Non-refundable license fee consideration that is allocated to a distinct license of functional intellectual property is recognized at the point in time upon which control of the license transfers to the customer and not before the customer has both access and the is able to use and benefit from the license.

(2) ***Development Milestones:*** The Company utilizes the most likely amount method to estimate the amount of consideration to which it will be entitled for achievement of the development milestones as these represent variable consideration. Variable consideration is included in the transaction price to

the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. For those payments based on development milestones (e.g., patient dosing in a clinical trial or the achievement of statistically significant clinical results), the Company assesses the probability that the milestone will be achieved, including its ability to control the timing or likelihood of achievement, and any associated revenue constraint. Given the high degree of uncertainty around the occurrence of these events, the Company determines the milestone and other contingent amounts to be constrained until it becomes probable that a significant reversal in the amount of cumulative revenue will not occur. At each reporting period, the Company re-evaluates this associated revenue recognition constraint. Any resulting adjustments are recorded to revenue on a cumulative catch-up basis and reflected in the financial statements in the period of adjustment.

(3) ***Regulatory Milestones:*** The Company utilizes the most likely amount method to estimate the consideration to which it will be entitled for achievement of the regulatory milestones as these represent variable consideration. Variable consideration is included in the transaction price to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. The Company recognizes regulatory milestones in the period in which it becomes probable that a significant reversal in the amount of cumulative revenue will not occur (the regulatory milestone is no longer constrained). Due to the inherent uncertainty of achieving regulatory approval, associated milestones are deemed constrained for revenue recognition until achievement. At each reporting period, the Company re-evaluates this associated revenue recognition constraint. Any resulting adjustments are recorded to revenue on a cumulative catch-up basis and reflected in the financial statements in the period of adjustment.

(4) ***Royalties:*** Under the sales-or-usage-based royalty exception the Company recognizes revenue based on the contractual percentage of the licensee's sale of products to its customers at the later of (i) the occurrence of the related product sales or (ii) the date upon which the performance obligation to which some or all of the royalty has been allocated has been satisfied or partially satisfied.

(5) ***Sales Threshold Milestones:*** Similar to royalties, applying the sales-or-usage-based royalty exception, the Company recognizes revenue from sales threshold milestones at the later of (i) the period the licensee achieves the one-time annual product sales levels in their territories for which the Company is contractually entitled to a specified lump-sum receipt, or (ii) the date upon which the performance obligation to which some or all of the milestone has been allocated has been satisfied or partially satisfied.

Impairment of Property and Equipment

The Company reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If circumstances require a long-lived asset or asset group to be tested for possible impairment, the Company first compares undiscounted cash flows expected to be generated by that asset or asset group to its carrying value. If the carrying value of the long-lived asset or asset group is not recoverable on an undiscounted-cash-flow basis, an impairment is recognized to the extent that the carrying value exceeds its fair value. The Company did not recognize impairment losses for the years ended December 31, 2022 and 2023.

Research and Development

Research and development expenses consist primarily of direct and indirect costs incurred in connection with the Company's discovery efforts, and the preclinical and formulation development of its drug candidates. In the future, the Company expects a substantial portion of its research and development expenses will relate to the clinical development of its drug candidates. Direct costs include contracted research development and manufacturing, consulting fees, license fees, laboratory supplies and other expenses incurred to sustain research and development programs. Indirect costs include salaries, benefits, travel, stock-based compensation charges for those individuals involved in research and development efforts, and associated overhead expenses. Research and development costs are expensed as incurred.

Accrued Research and Development Expense

The Company is required to estimate its expenses resulting from its obligations under contracts with vendors, consultants, and contract research organizations, in connection with conducting research and development activities. The Company reflects research and development expenses in its financial statements by matching those expenses with the period in which services and efforts are expended. The Company accounts for these expenses according to the progress of the activity as measured by the timing of various aspects of the study or related activities. The Company determines accrual estimates through review of the underlying contracts along with preparation of financial models taking into account discussions with research and other key personnel as to the progress of studies, or other services being conducted. During the course of an activity, the Company adjusts its rate of expense recognition if actual results differ from its estimate. Nonrefundable advance payments for goods and services, including fees for process development or manufacturing and distribution of clinical supplies that will be used in future research and development activities, are deferred and recognized as expense in the period that the related services are performed.

Convertible Preferred Stock

The Company records convertible preferred stock at fair value on the dates of issuance, net of issuance costs. Upon the occurrence of certain events that are outside the Company's control, including a deemed liquidation event, holders of the convertible preferred stock can cause redemption for cash or other assets. Therefore, convertible preferred stock is classified outside of stockholders' deficit on the balance sheets as events triggering the liquidation preferences are not solely within the Company's control. The carrying values of the convertible preferred stock are adjusted to their liquidation preferences if and when it becomes probable that such a liquidation event will occur.

Preferred Stock Warrant Liability

The Company has issued a warrant to purchase shares of its convertible preferred stock. Because the underlying convertible preferred stock is classified outside of permanent equity, this warrant is classified as a liability in the accompanying balance sheets as a component of other long-term liabilities. This warrant is recorded at its estimated fair value on the date of issuance and is revalued at each subsequent reporting period, with fair value changes recognized as increases or reductions to other income (expense), net in the accompanying statements of operations and comprehensive income (loss). The Company estimates the fair value of this warrant using the Black-Scholes option pricing model. This method requires certain assumptions be used as inputs, see "Stock-Based Compensation" below.

Investor Rights and Obligations Liability

As part of the Company's Series B convertible preferred stock issuance, an investor agreed to pay a premium for the preferred stock in exchange for certain additional rights and obligations which were not provided to the other Series B convertible preferred stock investors. The Company evaluated these additional rights and obligations and concluded they met the definition of a derivative and therefore these rights and obligations were recorded at their calculated fair value at issuance. The Company initially assessed the fair value of these rights and obligations as the additional premium paid by this investor to acquire these rights and obligations. The investor rights and obligations liability is revalued at each reporting period with changes in the fair value of the liability recorded as change in fair value of investor rights and obligations in the statements of operations and comprehensive income (loss). The noted agreement was amended and replaced in its entirety on November 30, 2022. On April 28, 2023 the Company was notified that an event occurred resulting in the termination of the transfer and put option rights and related obligations. See Note 4 for a discussion on the modification and subsequent termination.

Patent Costs

The Company expenses all costs as incurred in connection with patent applications (including direct application fees, and the legal and consulting expenses related to making such applications) and such costs are included in general and administrative expenses in the statement of operations and comprehensive income (loss).

Stock-Based Compensation

Stock-based compensation expense represents the cost of the grant date fair value of employee, officer, director and non-employee stock option grants, recognized on a straight-line basis over the vesting period. The vesting period generally approximates the expected service period of the awards. The Company recognizes forfeitures as they occur.

The fair value of stock options is estimated using a Black-Scholes valuation model on the date of grant. This method requires certain assumptions be used as inputs, such as the fair value of the underlying common stock, expected term of the option before exercise, expected volatility of the Company's common stock, risk-free interest rate and expected dividend yield. Options granted have a maximum contractual term of ten years. The Company has limited historical stock option activity and therefore estimates the expected term of stock options granted using the simplified method, which represents the arithmetic average of the original contractual term of the stock option and its weighted-average vesting term. The expected volatility of stock options is based upon the historical volatility of a number of publicly traded companies in similar stages of clinical development. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available. The risk-free interest rates used are based on the U.S. Treasury yield in effect at the time of grant for zero-coupon U.S. treasury notes with maturities approximately equal to the expected term of the stock options. The Company has historically not declared or paid any dividends and does not currently expect to do so in the foreseeable future, and therefore has estimated the dividend yield to be zero.

Commitments and Contingencies

The Company recognizes a liability with regards to loss contingencies when it believes it is probable a liability has been incurred, and the amount can be reasonably estimated. If some amount within a range of loss appears at the time to be a better estimate than any other amount within the range, the Company accrues that amount. When no amount within the range is a better estimate than any other amount, the Company accrues the minimum amount in the range. The Company has not recorded any such liabilities as of December 31, 2022 and 2023.

Segment Reporting

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision- making group ("CODM"). The Company has identified its Chief Executive Officer as the CODM who is responsible for making decisions regarding resource allocation and assessing performance. The Company views its operations and manages its business as one operating segment.

Income Taxes

The Company accounts for income taxes under the asset and liability method, which requires the recognition of deferred tax assets and liabilities for the expected future tax consequences of events that have been included in the financial statements. Under this method, deferred tax assets and liabilities are determined on the basis of the differences between the financial statements and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. The effect of a change in tax rates on deferred tax assets and liabilities is recognized in income in the period that includes the enactment date.

The Company recognizes deferred tax assets to the extent that the Company believes these assets are more likely than not to be realized. In making such a determination, management considers all available positive and negative evidence, including future reversals of existing taxable temporary differences, projected future taxable income, tax-planning strategies, and results of recent operations. If management determines that the Company would be able to realize its deferred tax assets in the future in excess of their recorded amount, management would make an adjustment to the deferred tax asset valuation allowance, which would reduce the provision for income taxes.

As of December 31, 2022 and 2023, the Company maintained valuation allowances against its deferred tax assets as the Company concluded it had not met the "more likely than not" to be realized threshold. Changes in the valuation allowance, when they are recognized in the provision for income taxes, may result in a change in the estimated annual effective tax rate.

The Company records uncertain tax positions on the basis of a two-step process whereby (1) management determines whether it is more likely than not that the tax positions will be sustained on the basis of the technical merits of the position and (2) for those tax positions that meet the more-likely-than-not recognition threshold, management recognizes the largest amount of tax benefit that is more than 50 percent likely to be realized upon ultimate settlement with the related tax authority. The Company recognizes interest and penalties related to unrecognized tax benefits within income tax expense. Any accrued interest and penalties are included within the related tax liability. As of and for the years ended December 31, 2022 and 2023, the Company had no accrued interest or penalties related to unrecognized tax benefits.

Net Income (Loss) Per Share

Basic net income (loss) per share allocable to commons stockholders is presented in conformity with the two-class method required for participating securities. All classes of outstanding preferred stock are considered participating securities as, in the event a dividend is paid on common stock, the holders of preferred stock would be entitled to receive dividends as the higher of their dividend preference or the amount they would receive if the shares were converted to common stock immediately prior to the dividend. The two-class method determines net income per share for each

class of common and participating securities according to dividends declared or accumulated as well as participation rights in undistributed earnings. The two-class method requires income available to stockholders for the period to be allocated between common and participating securities based upon their respective rights to receive dividends as if all income for the period had been distributed. Under the two-class method, any net loss attributable to common stockholders is not allocated to the preferred stock as the holders of the preferred stock do not have a contractual obligation to share in losses.

Basic net income (loss) is calculated by dividing net income (loss) attributable to common stockholders by the weighted-average number of common shares outstanding during the period. Common shares used in diluted net income (loss) per share include the dilutive effect of unvested common stock issued upon the early exercise of stock options, unvested common stock subject to repurchase, common shares potentially issuable upon the exercise of outstanding stock options under the treasury stock method, outstanding warrants under the treasury stock method, convertible preferred stock under the if-converted method, and the investor rights and obligations under the reverse treasury stock method. However, potentially issuable common shares are not used in computing diluted net loss per ordinary share as their effect would be anti-dilutive due to the loss recorded during the year ended December 31, 2022, and therefore diluted net loss per share is equal to basic net loss per share. During the year ended December 31, 2023, diluted net income per share is computed by giving effect to all dilutive potential common shares.

Emerging Growth Company Status

The Company is an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012 (“JOBS Act”). Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. The Company has elected to use this extended transition period under the JOBS Act until the earlier of the date the Company (1) is no longer an emerging growth company or (2) affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, the Company’s financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

Recently Issued Accounting Pronouncements

In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses (Topic 32), Measurement of Credit Losses on Financial Instruments. The standard amends the impairment model by requiring entities to use a forward-looking approach based on expected losses to estimate credit losses for most financial assets and certain other instruments that aren’t measured at fair value through net income. For available-for-sale debt securities, entities will be required to recognize an allowance for credit losses rather than a reduction in carrying value of the asset. Entities will no longer be permitted to consider the length of time that fair value has been less than amortized cost when evaluating when credit losses should be recognized. This new guidance was effective for the Company as of January 1, 2023 and did not have a material impact on its financial statements and related disclosures.

In December 2023, the FASB issued ASU No. 2023-09, “Improvements to Income Tax Disclosures.” ASU 2023-09 requires disaggregated information about a reporting entity’s effective tax rate reconciliation as well as information on income taxes paid. ASU 2023-09 is effective for public entities with annual periods beginning after December 15, 2024 and for private businesses for annual periods beginning after December 15, 2025, with early adoption permitted. The Company is currently evaluating the impact of this guidance on its consolidated financial statements.

3. Marketable Securities

The Company invests its excess cash in marketable securities, including debt securities, commercial paper, asset-backed securities, yankee debt and U.S. government agencies.

The following table summarizes the amortized cost and fair value of the Company's cash equivalents and marketable securities by major investment category (in thousands).

		As of December 31, 2022			
			Unrealized		
	Maturity in Years	Amortized Cost	Gains	Losses	Fair Value
US Government agency securities	2 years or less	$ 18,210	$ 6	$ (47)	$ 18,169
Corporate debt securities	Less than 1	8,029	1	(37)	7,993
Commercial paper	Less than 1	13,303	—	—	13,303
Asset-backed securities	Less than 1	2,202	4	(1)	2,205
		$ 41,744	$ 11	$ (85)	$ 41,670

		As of December 31, 2023			
			Unrealized		
	Maturity in Years	Amortized Cost	Gains	Losses	Fair Value
US Government agency securities	2 years or less	$ 18,883	$ 11	$ —	$ 18,894
Certificate of deposit	Less than 1	5,232	13	—	5,245
Corporate debt securities	2 years or less	52,310	65	(6)	52,369
Commercial paper	Less than 1	28,108	19	(1)	28,126
Yankee debt	Less than 1	2,445	3	—	2,448
Asset-backed securities	3 years or less	2,576	7	(1)	2,582
		$ 109,554	$ 118	$ (8)	$ 109,664

The Company segments its portfolio based on the underlying risk profiles of their current securities being held. The Company regularly reviews the securities in an unrealized loss position and evaluates the current expected credit loss by considering factors such as historical experience, market data, issuer-specific factors, current and expected future economic conditions. As of December 31, 2023, the Company did not record an allowance for credit loss related to its investment portfolio.

4. Fair Value Measurements

The accounting guidance defines fair value, establishes a consistent framework for measuring fair value and expands disclosure for each major asset and liability category measured at fair value on either a recurring or nonrecurring basis. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, the accounting guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1—Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Level 2—Quoted prices for similar assets and liabilities in active markets, quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3—Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e. supported by little or no market activity).

Assets and liabilities measured at fair value on a recurring basis are as follows (in thousands):

		Fair Value Measurements Using		
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
As of December 31, 2022:				
Cash equivalents	$ 5,434	$ 5,434	$ —	$ —
US Government agency securities	18,169	18,169	—	—
Corporate debt securities	7,993	—	7,993	—
Commercial paper	13,303	—	13,303	—
Asset-backed securities	2,205	—	2,205	—
Investor rights and obligations liability	(2,867)	—	—	(2,867)
Preferred stock warrant liability	(115)	—	—	(115)
	$ 44,122	$ 23,603	$ 23,501	$ (2,982)
As of December 31, 2023:				
Cash equivalents	$ 14,646	$ 14,646	$ —	$ —
US Government agency securities	18,894	16,360	2,534	—
Certificates of deposits	5,245	—	5,245	—
Corporate debt securities	52,369	—	52,369	—
Commercial paper	28,126	—	28,126	—
Yankee Debt	2,448	—	2,448	—
Asset-backed securities	2,582	—	2,582	—
Preferred stock warrant liability	(109)	—	—	(109)
	$124,201	$ 31,006	$ 93,304	$ (109)

The carrying amounts of the Company's financial instruments, including cash, cash equivalents and marketable securities, prepaid and other current assets, accounts payable, and accrued liabilities, approximate fair value due to their short maturities. Included in cash and cash equivalents at December 31, 2022 and 2023 are money market funds with a carrying value and fair value of $4.4 million and $11.8 million, respectively, based upon a Level 1 fair value assessment.

Preferred Stock Warrant Liability

The preferred stock warrant liability (included on the balance sheet under other long-term liabilities) consists of the fair value of a warrant to purchase Series B convertible preferred stock (see Note 8) and was based on significant unobservable inputs, which represent a Level 3 measurement within the fair value hierarchy. The Company's valuation of the preferred stock warrant utilized the Black-Scholes option-pricing model.

The quantitative elements associated with the Company's Level 3 inputs impacting the fair value measurement of the preferred stock warrant liability include the fair value per share of the underlying Series B convertible preferred stock, the remaining contractual term of the warrant, risk-free interest rate, expected dividend yield and expected volatility of the price of the underlying preferred stock. The most significant assumption in the Black-Scholes option-pricing model impacting the fair value of the preferred stock warrant is the fair value of the Company's Series B convertible preferred stock as of each remeasurement date. The Company determines the fair value per share of the underlying

preferred stock by taking into consideration its most recent sales of its convertible preferred stock as well as additional factors that the Company deems relevant. The Company historically has been a private company and lacks company-specific historical and implied volatility information of its stock. Therefore, it estimates its expected stock volatility based on the historical volatility of publicly traded peer companies for a term equal to the remaining contractual term of the warrant.

The risk-free interest rate is determined by reference to the U.S. Treasury yield curve for time periods approximately equal to the remaining contractual term of the warrant. The Company has estimated a 0% dividend yield based on the expected dividend yield and the fact that the Company has never paid or declared dividends.

The Company classifies this warrant as a liability on its balance sheets that it remeasures to fair value at each reporting date, and the Company recognizes changes in the fair value of the warrant liability as a component of other income (expense) in its statements of operations and comprehensive loss. The Company will continue to recognize changes in the fair value of the warrant liability until the warrant is exercised, expires or qualifies for equity classification.

Significant increases or decreases in any of these inputs in isolation would result in a significantly different fair value measurement. An increase in the risk-free interest rate, and/or an increase in the remaining contractual term or expected volatility, and/or an increase in the fair value of the convertible preferred stock would result in an increase in the fair value of the warrant.

Investor Rights and Obligations Liability

The investor rights and obligations liability consisted of the fair value of certain investor rights set forth in an agreement (the “Series B Investor 2019 Agreement”) between the Company and an investor (the “Series B Investor”) who participated in the Company’s Series B convertible preferred stock financing. The Company entered into the Series B Investor 2019 Agreement in exchange for a premium paid by the Series B Investor for the shares of the Company’s Series B convertible preferred stock (See Note 8) it purchased in November 2019. The total premium paid by the Series B Investor was $0.2 million. The Series B Investor Agreement required the Company to license the intellectual property it owns or controls in a defined geography to the Series B Investor unless the Company either spent $2.0 million in support of the development of its business in such defined geography or the Series B Investor recognized a rate of return of at least 15% per annum on the cash it invested in the Company’s Series B convertible preferred stock (the “Qualified Return”). The Series B Investor Agreement provided the Company with certain rights to repurchase the Series B Investor’s stock for an amount that represents a Qualified Return or to pay the Series B Investor an amount that results in the Series B Investor achieving a Qualified Return.

The Series B Investor 2019 Agreement was amended and replaced in its entirety on November 30, 2022. As a result of the amendment, the intellectual property license requirement noted above was removed and the updated agreement stated that if the Company completed a Liquidation Event, an Acquisition, or an Asset Transfer, as defined in the amended agreement (collectively referred to as “Transfer Event Right”) prior to June 30, 2024, the Series B Investor would be entitled, automatically to receive the greater of (1) the amount payable to the investor in the Transfer Event Right as a result of its ownership of the shares held by the investor on the effective date of the Transfer Event or (2) an amount equal to a rate of return of 15% per annum for the shares held by the investor on the effective date of the Transfer Event with respect to the investor’s initial cash investment in such shares. If no Transfer Event were to take place by June 2024, the Series B investor had a right (to be exercised between June 30, 2024 and July 15, 2024) to sell shares to Company at a 15% rate of return (“Put Option Right”). The amended agreement also noted that if a certain limited partner of the Series B Investor is no longer a limited partner prior to June 30, 2024 then the Transfer Event Right and the

Put Option Right noted above would automatically terminate. The Company was informed on May 17, 2023 that the certain limited partner of the Series B Investor was no longer a limited partner of the Series B Investor and therefore the Transfer Event Right and the Put Option Right have terminated. Following the termination of the Transfer Event Right and the Put Option Right due to the change in the limited partner's status in May 2023, the Company settled the Series B Premium liability resulting in a gain of $2.9 million in 2023.

Roll-Forward of Level 3 Financial Instruments

A reconciliation of the Level 3 financial instruments for the year ended December 31, 2023 is as follows (in thousands):

	Preferred Stock Warrant Liability	Investor Rights and Obligations Liability
Balance at December 31, 2021	$ 117	$ 1,050
Change in fair value of preferred stock warrant liability	(2)	—
Change in fair value of investor rights and obligations liability	—	1,817
Balance at December 31, 2022	$ 115	$ 2,867
Change in fair value of preferred stock warrant liability	(5)	—
Change in fair value of investor rights and obligations liability	—	(2,867)
Balance at December 31, 2023	$ 110	$ —

5. Property and Equipment

Property and equipment, net consisted of the following (in thousands):

	December 31, 2022	December 31, 2023
Lab equipment	$ 1,665	$ 2,052
Leasehold improvements	18	48
Computer equipment and software	23	50
Furniture and fixtures	5	5
	1,711	2,155
Less: accumulated depreciation and amortization	(1,280)	(1,477)
Total property and equipment, net	$ 431	$ 678

The Company recognized $0.3 million and $0.2 million in depreciation and amortization expense for the years ended December 31, 2022 and 2023, respectively.

6. Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	December 31, 2022	December 31, 2023
Accrued compensation expenses	$ 1,310	$ 1,904
Accrued research and development expenses	363	1,546
Accrued professional and consulting expenses	303	834
Other accrued expenses	86	101
Total accrued expenses	$ 2,062	$ 4,385

7. Debt

In September 2020, the Company entered into a loan and security agreement (the "Loan Agreement", and all amounts borrowed thereunder the "Term Loan") with First Citizens Bank, as administrative and collateral agent, and lender. The Company borrowed $5.0 million at the inception of the Loan Agreement and had the option to borrow an additional $5.0 million upon closing a new capital round of no less than $30.0 million from a syndicate of investors. The option to borrow an additional $5.0 million expired on June 30, 2021.

In June 2023, the Company fully paid the remaining balance of the Term Loan and final prepayment fee of $3.0 million.

8. Convertible Preferred Stock and Stockholders' Deficit

Under its Amended and Restated Certificate of Incorporation dated April 10, 2023, the Company had a total of 316,639,798 shares of capital stock authorized for issuance, consisting of 221,819,899 shares of common stock, par value of $0.001 per share, and 94,819,899 shares of convertible preferred stock, par value of $0.001 per share. Shares of authorized convertible preferred stock are designated as 10,000,000 shares of Series A convertible preferred stock, 8,000,000 shares of Series A-1 convertible preferred stock, 18,819,899 shares of Series B convertible preferred stock and 58,000,000 shares of Series C convertible preferred stock.

Convertible Preferred Stock

As of December 31, 2022 and 2023, the Company's Series A, Series A-1, Series B, and Series C convertible preferred stock have been classified as temporary equity in the accompanying balance sheets given that a majority of the Company's board of director seats are held and/or voted upon by convertible preferred stockholders and they could cause certain events to occur requiring redemption of the preferred stock that are outside of the Company's control. The Company has not adjusted the carrying values of the convertible preferred stock to the respective liquidation preferences of such shares as the instruments are currently not redeemable and the Company believes it is not probable that the instruments will become redeemable at this point in time. Adjustments to increase the carrying values to the respective liquidation preferences will be made if and when it becomes probable that an event would occur obligating the Company to pay such amounts.

The authorized, issued, and outstanding shares of convertible preferred stock as of December 31, 2023 consist of the following:

	Shares Authorized	Shares Issued and Outstanding	Liquidation Preference (in thousands)
Series A	10,000,000	10,000,000	$ 10,000
Series A-1	8,000,000	7,965,485	11,179
Series B	18,819,899	18,731,664	32,034
Series C	58,000,000	52,333,442	140,249
	94,819,899	89,030,591	$ 193,462

Series B Convertible Preferred Stock

In November 2019, the Company executed a Preferred Stock Purchase Agreement whereby it agreed to issue an aggregate of 18,731,664 shares of Series B convertible preferred stock, at a price of $1.70 per share. From November 2019 through August 2020, the Company issued 14,117,642 shares of its Series B convertible preferred stock at a price of $1.70 per share resulting in total net

proceeds of approximately $23.8 million, including issuance costs of $0.2 million. In addition, the Company converted convertible promissory notes plus accrued interest of $4.0 million into 2,373,124 shares of Series B convertible preferred Stock for $1.70 per share.

Series C Convertible Preferred Stock

In February 2021, the Company issued 29,851,870 shares of its Series C convertible preferred stock, at a price of $2.68 per share, resulting in total net proceeds of approximately $79.7 million, including issuance costs of $0.3 million. From April 2023 through August 2023, the Company issued an additional 22,481,572 shares of its Series C convertible preferred stock, at a price of $2.68 per share, resulting in total net proceeds of approximately $60.1 million, including issuance costs of $0.1 million.

The Company's convertible preferred stock has the following characteristics:

1) Dividends

Holders of the Series A and A-1 convertible preferred stock, in preference to any distributions to the holders of common stock, shall be entitled to receive non-cumulative cash dividends at an annual rate of $0.08 and $0.11 per share, respectively. Holders of the Series B convertible preferred stock, in preference to any distributions to the holders of common stock, Series A, and Series A-1 stock, shall be entitled to receive non-cumulative cash dividends at an annual rate of $0.14 per share. Holders of the Series C convertible preferred stock, in preference to any distributions to the holder of common stock, Series A, Series A-1 and Series B convertible preferred stock shall be entitled to receive non-cumulative cash dividends at an annual rate of $0.21 per share. Such dividends are payable only when and if declared by the Company's board of directors.

No such dividends have been declared or paid through December 31, 2023.

2) Preference on Liquidation

The holders of the Series A, Series A-1, Series B, and Series C convertible preferred stock are entitled to receive liquidation preferences upon the liquidation, dissolution or winding-up of the Company at the greater of 1) the Series A, Series A-1, Series B, and Series C convertible preferred stock original issue prices of $1.00, $1.40, $1.70, $2.68 per share, respectively, plus all accrued and declared but unpaid dividends or 2) the amount that would have been payable had all shares been converted to common stock immediately prior to such liquidation, dissolution or winding up of the Company. Liquidation payments to the holders of the Series A and Series A-1 convertible preferred stock have priority and are made in preference to any payments to the holders of common stock. Liquidation payments to the holders of the Series B convertible preferred stock have priority and are made in preference to any payments to the holders of common stock, Series A and Series A-1 convertible preferred stock. Liquidation payments to the holders of the Series C convertible preferred stock have priority and are made in preference to any payments to the holders of common stock, Series A, Series A-1, and Series B convertible preferred stock.

After full payment of the liquidation preference to the holders of the Series A, Series A-1, Series B and Series C convertible preferred stock upon the liquidation, dissolution or winding-up of the Company, the remaining assets, if any, will be distributed ratably to all holders of common stock.

3) Conversion Rights

Each share of outstanding Series A, Series A-1, Series B, and Series C convertible preferred stock is convertible into one share of common stock at the option of the holder, subject to certain anti-dilution adjustments. The conversion rate for the convertible preferred stock is determined by dividing the applicable original issue price, as adjusted for stock splits, by the applicable conversion price. The conversion price is

initially the original issue price for such series of convertible preferred stock, but is subject to adjustment for dividends, stock splits, and other distributions. The conversion rate at December 31, 2023 for the Series A, Series A-1, Series B, and Series C convertible preferred stock was 1:1.

Each share of Series A, Series A-1, Series B, and Series C convertible preferred stock will be automatically converted into common stock at the then effective conversion rate (i) immediately upon the closing of a firmly underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of common stock for the account of the Company in which the gross cash proceeds to the Company are at least $50.0 million or (ii) upon written request for such conversion from the Requisite Investors (defined under the terms of the convertible preferred stock as at least 60% of the holders of preferred stock).

4) Redemption Rights

The holders of Series A, Series A-1, Series B and Series C convertible preferred stock do not have any redemption rights.

5) Voting

The holder of each share of Series A, Series A-1, Series B and Series C convertible preferred stock generally vote together with the shares of common stock as a single class, but also have class vote approval rights as provided by the Company's certificate of incorporation or as required by applicable law.

Common Stock

As of December 31, 2023, of the authorized 221,819,899 shares of common stock, 13,151,230 shares of Class A common stock were issued and outstanding. No shares of Class B common stock are outstanding. The Company has two classes of common stock: the Class A common stock and Class B common stock. Class A common stock has one vote per share and Class B common stock has no votes per share. The fair value of the Company's Class A common stock was approximately $1.89 and $2.05 per share as of December 31, 2022 and December 31, 2023, respectively, and was determined in part based on third-party valuations.

Voting, dividend, and liquidation rights of the holders of the common stock are subject to, and qualified by, the rights, preferences and privileges of the holders of the convertible preferred stock. The holders of the common stock are entitled to one vote for each share of common stock held at all meetings of stockholders.

Common stock reserved for future issuance consisted of the following:

	As of December 31, 2023
Convertible preferred stock	89,030,591
Common stock options granted and outstanding	14,969,471
Shares available for issuance under the 2012 Incentive Plan	2,812,543
Preferred stock warrant	88,235
Total common stock reserved for future issuance	106,900,840

Stock Options

In 2012, the Company adopted the 2012 Equity Incentive Plan (the "Plan"), which allowed for the issuance of incentive stock options ("ISOs"), nonstatutory stock options ("NSOs"), stock appreciation

rights, restricted stock, restricted stock units, and other stock awards (collectively “Stock Awards”). The Plan was established to secure and retain the services of the group of persons eligible to receive Stock Awards and to provide additional incentives to its employees, directors, and consultants of the Company. Under the Plan, the Company can offer ISOs to employees and NSOs to employees, non-employee directors, and consultants. The Plan allows the Company to issue stock awards for shares of its common stock up to a total of 19,194,633 shares, subject to appropriate adjustments for stock splits, combinations and other similar events for issuance pursuant to awards made under the Plan.

Under the Plan, the exercise price of each ISO shall be established in the sole discretion of the Company’s board of directors (or any of the committees of the Company’s board of directors); provided, however, that (i) the exercise price per share for an ISO shall not be less than the fair market value for shares of the Company’s common stock on the date of grant and (ii) the exercise price per share of an ISO granted to an optionee who on the date of the grant owns stock possessing more than 10% stockholder of the Company shall not be less than 110% of the fair market value of a share of its common stock on the date of grant and the option shall not be exercisable after five years from the date of grant.

The options that are granted under the Plan are exercisable at various dates as determined upon grant and terminate within ten years of the date of grant, unless the optionee owns 10% or more of the common shares at which point the expiration period is 5 years, or upon the employee’s termination (whereupon the terminated employee has ninety days after termination to exercise vested options from the date of termination). The vesting period generally occurs over four years.

Stock option activity under the Plan is as follows:

	Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value (in thousands)
Balance at December 31, 2022	12,317,211	$ 0.80	7.22	$ 13,453
Options granted	3,310,000	1.93	—	—
Options exercised	(392,565)	0.40	—	—
Options cancelled and forfeited	(149,175)	1.65	—	—
Options expired	(116,000)	0.19	—	—
Balance at December 31, 2023	14,969,471	$ 1.06	7.14	$ 14,888
Options Vested and Expected to Vest as of December 31, 2023	14,969,471	$ 1.06	7.14	$ 14,888
Options Exercisable as of December 31, 2023	11,354,068	$ 0.78	6.36	$ 14,399

The aggregate intrinsic value of options exercised during the year ended December 31, 2022 and 2023 was $3.8 thousand and $0.6 million, respectively, determined as of the date of exercise. Options exercisable includes options which are not vested, but are available to be early exercised as of December 31, 2023.

The Company estimated the fair value of stock options using the Black-Scholes valuation model. The Company accounts for any forfeitures of options when they occur. Previously recognized compensation expense for an award is reversed in the period that the award is forfeited. The fair value of stock options was estimated using the following weighted-average assumptions:

	For the Year Ended December 31, 2022	For the Year Ended December 31, 2023
Assumptions:		
Expected term (in years)	5.8	6.08
Expected volatility	88.38%	94.57%
Risk free interest rate	2.64%	4.74%
Dividend yield	—	—

The weighted-average grant-date fair value per share of stock options granted during the year ended December 31, 2022 and 2023 was $1.11 and $1.53 per share, respectively. The Company recorded $1.0 million and $0.9 million in stock-based compensation expense in general and administrative and research and development, respectively, for the year ended December 31, 2022. The Company recorded $1.2 million and $1.0 million in stock-based compensation expense in general and administrative and research and development, respectively, for the year ended December 31, 2023.

As of December 31, 2023 there was approximately $6.6 million of total unrecognized stock-based compensation expense related to awards granted under the Plan, which is expected to be recognized over a weighted-average period of approximately 1.3 years.

Liability for Early Exercise of Restricted Stock Options

Certain individuals were granted the ability to early exercise their stock options. The shares of common stock issued from the early exercise of unvested stock options are restricted and continue to vest in accordance with the original vesting schedule. The Company has the option to repurchase any unvested shares at the original purchase price upon any voluntary or involuntary termination. The shares purchased by the employees and non-employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be outstanding until those shares vest. The cash received in exchange for exercised and unvested shares related to stock options granted is recorded as a liability for the early exercise of stock options on the accompanying balance sheets and will be transferred into common stock and additional paid-in capital as the shares vest. As of December 31, 2022 and 2023, 128,910 and zero, respectively, unvested shares issued under early exercise provisions were subject to repurchase by the Company. As of December 31, 2022 and 2023, the Company recorded $23,000 and $0, respectively, associated with shares issued with repurchase rights in other long-term liabilities.

9. Income Taxes

The following is a reconciliation between the provision for income taxes and income taxes computed using the U.S. federal statutory corporate tax rate for the years ended December 31, 2022 and 2023 is as follows (in thousands):

	Year Ended December 31, 2022	Year Ended December 31, 2023
Expected tax benefit at statutory rate	$ (5,094)	$ 4,886
State income tax, net of federal benefit	(1,483)	5
Change in fair value of investor rights and obligations liability	379	(602)
Permanent differences	214	127
Research credits	(929)	(1,140)
IRC Sec. 382 & 383 adjustments	551	—
Change in valuation allowance	6,362	(2,826)
	$ —	$ 450

The tax provision for the year ended December 31, 2022 consisted of state minimum taxes. For the year ended December 31, 2023, the Company recorded $0.4 million of current federal tax expense due to tax law limitations on the ability to fully utilize net operating loss and research and development credit carryforwards against taxable income.

The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities as of December 31, 2022 and 2023 are as follows:

	Year Ended December 31, 2022	Year Ended December 31, 2023
Deferred tax assets:		
Net operating loss carryforwards	$ 20,208	$ 12,498
Research and development credit carryforwards	4,259	4,476
Capitalized research and development	3,003	7,469
Lease liabilities	399	120
Other, net	729	1,018
Total deferred tax assets	28,597	25,580
Valuation allowance	(28,193)	(25,328)
Deferred tax assets, net of valuation allowance	404	252
Deferred tax liabilities:		
Property and equipment	(50)	(101)
Right-of-use assets	(354)	(151)
Total deferred tax liabilities	(404)	(252)
Net deferred tax assets/(liabilities)	$ —	$ —

The Company has established a valuation allowance against its net deferred tax assets due to the uncertainty surrounding the realization of such assets. The Company periodically evaluates the recoverability of the deferred tax assets. At such time as it is determined that it is more likely than not that deferred tax assets are realizable, the valuation allowance will be reduced. The Company has recorded a full valuation allowance of $28.2 million and $25.3 million as of December 31, 2022 and 2023, respectively, as it does not believe it is more likely than not that certain deferred tax assets will be realized primarily due to the generation of pre-tax book losses, no ability to carryback losses, the lack of feasible tax-planning strategies, the limited existing taxable temporary differences, and the subjective nature of forecasting future taxable income into the future.

At December 31, 2023, the Company had federal and California tax loss carry forwards of approximately $37.3 million and $81.4 million, respectively. Out of the total federal net operating losses, approximately $37.3 million were generated after January 1, 2018, and therefore do not expire. Net operating losses generated after January 1, 2018, are subject to 80% limitation in accordance with the Tax Cuts and Jobs Act of 2017. The remaining federal and state net operating loss carry forwards begin to expire in 2035 and 2036, respectively, if unused.

At December 31, 2023, the Company had federal and state research and development tax credit carry forwards of approximately $3.5 million and $2.7 million, respectively. The Company has not performed a formal research and development credit study with respect to these credits. The federal credits will begin to expire in 2032, if unused, and the state credits carry forward indefinitely.

Pursuant to the Internal Revenue Code ("IRC") of 1986, as amended, specifically IRC §382 and IRC §383, the Company's ability to use net operating loss and R&D tax credit carry forwards ("tax attribute carry forwards") to offset future taxable income is limited if the Company experiences a cumulative change in ownership of more than 50% within a three-year testing period. The Company has completed an ownership change analysis pursuant to IRC Section 382 and identified that ownership changes occurred in July 2012, April 2018, March 2019 and February 2021. The Company's deferred tax assets related to the tax attributes impacted have been adjusted through December 31, 2021 based on such analysis. As a result of limitations arising from the prior ownership changes, $0.5 million of federal and $3.7 million of California net operating loss carry-forwards were removed from the inventory of deferred tax assets. In addition, $0.2 million of federal R&D tax credits were removed as of December 31, 2022. If further ownership changes within the meaning of IRC Section 382 are identified as having occurred, the amount of remaining tax attribute carry-forwards available to offset future taxable income and income tax expense in future years may be significantly restricted or eliminated. Further, the Company's deferred tax assets associated with such tax attributes could be significantly reduced upon realization of an ownership change within the meaning of IRC §382.

The following table summarizes the reconciliation of the unrecognized tax benefits activity during the years ended December 31, 2022 and 2023 (in thousands):

	Year Ended December 31, 2022	Year Ended December 31, 2023
Unrecognized tax benefits—beginning	$ 2,417	$ 2,749
Gross increases—tax positions in current period	332	357
Decreases related to prior year positions	(1)	(532)
Unrecognized tax benefits—ending	$ 2,749	$ 2,574

The unrecognized tax benefit amounts are reflected in the determination of the Company's deferred tax assets. If recognized, none of these amounts would affect the Company's effective tax rate, since it would be offset by an equal corresponding adjustment in the deferred tax asset valuation allowance. The Company does not foresee material changes to its liability for uncertain tax benefits within the next twelve months.

During the year ended December 31, 2023, the Company reduced their reserve against research and development credits generated prior to 2022 as a result of the completion of a formal study of research and development credits generated through that period. The reduction in the reserve for uncertain tax positions was fully offset by an offsetting increase in the valuation allowance against research and development credit carryforwards resulting in no net tax provision impact from the change in the reserve.

The Company's policy is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had no accrual for interest or penalties on the Company's balance sheets as of December 31, 2022 and 2023 and has not recognized interest and/or penalties in the statement of operations and comprehensive income (loss) for the years ended December 31, 2022 and 2023.

All tax years for both federal and state purposes remain open and subject to examination by tax jurisdictions.

10. License Agreement

In February 2023, the Company entered into the J&J License Agreement, pursuant to which the Company granted J&J an exclusive, worldwide license to develop, manufacture and commercialize PIPE-307 in all indications. The agreement allows the Company to elect, at its sole discretion and cost, to conduct a Phase 2 trial of PIPE-307 for patients with multiple sclerosis. After such trial, J&J may, at its sole discretion, further develop PIPE-307 for patients with multiple sclerosis. Additionally, upon J&J deciding to conduct a first Phase 3 clinical trial for a product using PIPE-307, the agreement allows the Company the option to co-fund a portion of all Phase 3 and subsequent development costs for PIPE-307, with such cost capped annually. If the Company opts to fund such development costs, then the royalties the Company is eligible to receive will increase. Pursuant to the terms of the agreement, the Company received an upfront, non-refundable and non-creditable payment of $50.0 million upon transferring the license and know-how, existing inventory and manufacturing technology. The Company is also eligible to receive approximately $1.0 billion in non-refundable, non-creditable milestone payments. Additionally, the Company is eligible to receive tiered royalties in the low-double digit to high-teen percent range on net sales of products containing PIPE-307.

Under the Preferred Stock Purchase Agreement, the Company sold approximately 9.3 million shares of series C convertible preferred stock to JJDC, an affiliate of J&J, at $2.68 per share, for an aggregate purchase price of approximately $25.0 million, in April 2023. The Company determined that this preferred stock purchase was at fair value as other new investors purchased shares of preferred stock at the same price.

The Company concluded that J&J represented a customer and applied relevant guidance from ASC 606 to evaluate the appropriate accounting for the J&J License Agreement. The Company evaluated the J&J agreement and concluded that it had promises to transfer a license of functional intellectual property, know-how, existing inventory and manufacturing technology (each of which was determined to be a distinct performance obligation). Control of the promised goods was transferred to J&J in the second quarter of 2023, and the $50 million upfront payment was recognized in May 2023 upon satisfaction of the performance obligations. The remaining consideration consists of future contingent milestone-based payments and sales-based royalties. As of December 31, 2023, all variable consideration under the J&J License Agreement was fully constrained.

In August 2023, the Company elected to conduct a Phase 2 trial using PIPE-307 for patients with multiple sclerosis, which was considered a contract modification under the accounting guidance that added promised goods or services that are distinct at a price that is below the standalone selling price. Therefore, the Company accounted for the modification as a termination of the existing contract and creation of a new contract. Accordingly, the amount of consideration to be allocated to the remaining performance obligations consists of future contingent milestone-based payments and sales-based royalties, all of which were constrained. The only remaining performance obligation is the promise to conduct the Phase 2 trial as the other performance obligations had been satisfied prior to the modification date. Accordingly, the variable consideration allocated to the Phase 2 trial will be recognized as the study is completed using a cost-based measure of progress and when the amounts are no longer probable of a significant reversal. As of December 31, 2023, no amounts had been recognized related to the Phase 2 trial.

11. Related Party Transactions

In the second quarter of 2023, the Company issued 10,416,381 shares of its Series C convertible preferred stock for total cash proceeds of $27.9 million to three significant stockholders two that have designated members on the Company's board of directors and each of whom is considered to be a related party (see Note 8).

12. Commitments and Contingencies

Operating Lease

The Company leases office and lab space in San Diego, California under a non-cancelable operating lease ("Science Center Drive Lease"). The lease commenced in March 2018 and has a 5-year initial term. The lease includes a renewal option, which includes an option to renew for five additional years. During the quarter ended June 30, 2021, the Company amended the lease to include additional space in the building with the right to use the new space beginning in October 2021, for an additional 3 years. Base rent for the new unit was abated for the first three months of the lease term and thereafter is $0.05 million per month during the first year of the lease term, with specified annual increases thereafter. This amendment extended the original leased office space term from June 2023 to September 2024.

In October 2023, the Company executed a noncancelable operating lease for new premises to be used for office, research and development and laboratory purposes, with the same landlord as the Science Center Drive Lease. The lease is currently scheduled to commence in September 2024 and has a five-year term with an option to extend for another three-year period subject to certain conditions. As a result of the new lease, the Company received rent abatement from January until occupancy of the new space for its existing Science Center Drive Lease. This resulted in a modification of the Science Center Drive Lease and a remeasurement of the existing lease liability and the associated right-of-use asset in October 2023. As a result, $0.6 million from the future payments of the new lease were allocated to the Science Center Drive Lease, based on a relative standalone selling price analysis. The new lease is currently scheduled to commence in September 2024 and currently has no associated ROU asset or lease liability as the Company does not have access to the building and does not own any ongoing tenant improvements. The new ROU asset will be recorded upon occupancy of the space.

Below is a summary of the Company's right-of-use assets and lease liabilities for the Science Center Drive Lease (in thousands, except for years and %):

	Year Ended December 31, 2022	Year Ended December 31, 2023
Right of use assets	$ 1,684	$ 719
Lease liability obligations, current	1,110	464
Lease liability obligations, less current portion	791	108
Total lease liability obligations	$ 1,901	$ 572
Weighted-average remaining lease term	1.7	0.8
Weighted-average discount rate	7.4%	9.0%

During the years ended December 31, 2022 and 2023, the Company recognized $0.9 million and $0.9 million, respectively, in operating lease expenses, which are included in operating expenses in the Company's statements of operations and comprehensive income (loss).

Future minimum lease payments for the Company's Science Center Drive operating lease as of December 31, 2023 were as follows (in thousands):

Years ending December 31:	
2024	$252
2025	372
Total minimum lease payments	624
Less : amount representing interest	52
Total lease liability obligations	$572

The following table summarizes the Company's future lease obligations under the new lease agreement (in thousands):

Years ending December 31,	New Lease
2024	$ 252
2025	1,523
2026	1,568
2027	1,615
2028 and beyond	2,814
Total	$ 7,771

Litigation

The Company, from time to time, may be involved in legal proceedings, regulatory actions, claims and litigation arising in the ordinary course of business. The Company was not a defendant in any pending or threatened lawsuit for the years ended December 31, 2022 and 2023.

Other Commitments

The Company has various manufacturing, clinical, research and other contracts with vendors in the conduct of the normal course of its business. Such contracts are generally terminable with advanced written notice and payment for any products or services received by the Company through the effective time of termination and any non-cancelable and non-refundable obligations incurred by the vendor at the effective time of the termination. In the case of terminating a clinical trial agreement at a particular site, the Company would also be obligated to provide continued support for appropriate medical procedures at that site until completion or termination.

13. Net Income (Loss) Per Share

The following table sets forth the computation of the basic and diluted net loss per share (in thousands, except share and per share amounts):

	Year Ended December 31, 2022	Year Ended December 31, 2023
Numerator, basic:		
Net income (loss)	$ (24,253)	$ 22,720
Allocation of earnings to participating preferred stockholders	—	19,574
Net income (loss) applicable to common stockholders	$ (24,253)	$ 3,146
Denominator, basic:		
Weighted average common shares issued	12,778,392	12,946,966
Less: weighted average unvested common stock issued upon early exercise of stock options	(204,381)	(23,189)
Less: weighted average unvested common stock subject to repurchase.	(19,120)	—
Weighted average shares used to compute net income (loss) per common share, basic	12,554,891	12,923,777
Numerator, diluted:		
Net income (loss) attributable to common stockholders	$ (24,253)	$ 3,146
Change in fair value of preferred stock warrant liability	—	(5)
Change in fair value of investor rights and obligations liability	—	(2,867)
Net income (loss) applicable to common stockholders	$ (24,253)	$ 274
Denominator, diluted:		
Weighted average shares used to compute net income (loss) per common share, diluted	12,554,891	12,923,777
Common stock options	—	5,588,535
Unvested common stock issued upon early exercise of stock options	—	23,189
Preferred stock warrants (as converted to common stock)	—	9,502
Investor rights and obligations	—	460,366
Weighted average shares used to compute net income (loss) per common share, diluted	12,554,891	19,005,369
Net income (loss) per share, basic	$ (1.93)	$ 0.24
Net income (loss) per share, diluted	$ (1.93)	$ 0.01

The Companys potentially dilutive securities, which include convertible preferred stock, preferred stock warrants, common stock issued upon early exercise of stock options, common stock subject to repurchase, common stock options, and the investor rights and obligations liability, have been excluded from the computation of diluted net loss per share for the year ended December 31, 2022 as the effect would reduce the net loss per share. Therefore, the weighted-average number of shares common stock outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same. The Company excluded the following potential common securities, presented based on amounts outstanding at each year end, from the computation of diluted net income (loss) per share attributable to common stockholders for the years indicated because including them would have had an anti-dilutive effect:

	December 31, 2022	December 31, 2023
Convertible preferred stock (as converted to common stock)	66,549,019	—
Common stock options	12,317,211	4,050,444
Unvested common stock issued upon early exercise of stock options	128,910	—
Preferred stock warrant (as converted to common stock)	88,235	—
	79,083,375	4,050,444

14. Employee Benefit Plan

In January 2018, the Company adopted a defined contribution retirement savings plan under Section 401(k) of the Internal Revenue Code. This plan covers all employees who meet minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. The Company's contributions to the plan may be made at the discretion of the Company's board of directors. Total contributions by the Company during the years ended December 31, 2022 and 2023 was $0.2 million.

15. Subsequent Events

The Company has evaluated subsequent events through February 15, 2024, which is the date the financial statements were available to be issued.

Shares

Contineum Therapeutics, Inc.

Class A Common Stock

PROSPECTUS

Goldman Sachs & Co. LLC **Morgan Stanley** **Stifel** **RBC Capital Markets**

, 2024

Through and including , 2024 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution

The following table presents the costs and expenses, other than underwriting discounts, payable in connection with this offering. All amounts are estimates except the SEC registration fee, the Financial Industry Regulatory Authority, Inc. (FINRA) filing fee and the Nasdaq Global Select Market (Nasdaq) listing fee. Except as otherwise noted, all expenses below will be paid by us.

	Amount Paid or to Be Paid
SEC registration fee	$ *
FINRA filing fee	*
Nasdaq listing fee	*
Printing and engraving expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and register fees	*
Miscellaneous fees and expenses	
Total	$ *

* To be completed by amendment.

Item 14. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law authorizes a court to award, or a corporation's board of directors to grant, indemnity to directors and officers under certain circumstances and subject to certain limitations. The terms of Section 145 of the Delaware General Corporation Law are sufficiently broad to permit indemnification under certain circumstances for liabilities, including reimbursement of expenses incurred, arising under the Securities Act of 1933, as amended (Securities Act).

As permitted by the Delaware General Corporation Law, our amended and restated certificate of incorporation and amended and restated bylaws contain provisions relating to the limitation of liability and indemnification of directors and officers. The amended and restated certificate of incorporation provides that neither our directors nor officers will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, except for liability:

- for any breach of the director's or officer's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- in respect of unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law;
- an officer in any action by or in the right of the Registrant; or
- for any transaction from which the director or officer derives any improper personal benefit.

Our amended and restated certificate of incorporation also provides that if Delaware law is amended after the approval by our stockholders of the certificate of incorporation to authorize

corporate action further eliminating or limiting the personal liability of directors or officers, then the liability of our directors or officers will be eliminated or limited to the fullest extent permitted by Delaware law.

Our amended and restated bylaws provide that we will indemnify our directors and officers to the fullest extent permitted by Delaware law, as it now exists or may in the future be amended, against all expenses and liabilities reasonably incurred in connection with their service for or on our behalf. Our amended and restated bylaws provide that we shall advance the expenses incurred by a director or officer in advance of the final disposition of an action or proceeding, and permit us to secure insurance on behalf of any director, officer, employee, or other enterprise agent for any liability arising out of his or her action in that capacity, whether or not Delaware law would otherwise permit indemnification.

We intend to enter into indemnification agreements with each of our directors and executive officers and certain other key employees, a form of which is attached as Exhibit 10.1 to this registration statement. The form of agreement provides that we will indemnify each of our directors, executive officers and such other key employees against any and all expenses incurred by that director, executive officer, or other key employee because of his or her status as one of our directors, executive officers, or other key employees, to the fullest extent permitted by Delaware law, our restated certificate of incorporation and our amended and restated bylaws. In addition, the form agreement provides that, to the fullest extent permitted by Delaware law, we will advance all expenses incurred by our directors, executive officers and other key employees in connection with a legal proceeding.

Reference is made to the underwriting agreement contained in Exhibit 1.1 to this registration statement, indemnifying our directors and officers against limited liabilities. In addition, Section 2.8 of our amended and restated investors' rights agreement (the Investors' Rights Agreement) contained in Exhibit 4.2 to this registration statement provides for indemnification of certain of our stockholders against liabilities described in the Investors' Rights Agreement.

We currently carry and intend to continue to carry liability insurance for our directors and officers.

Item 15. Recent Sales of Unregistered Securities

The following list sets forth information regarding all unregistered securities sold by us since January 1, 2021. No underwriters were involved in the sales and the certificates representing the securities sold and issued contain legends restricting transfer of the securities without registration under the Securities Act or an applicable exemption from registration.

(a) From January 2021 through December 2023, we granted to our directors, officers, employees, consultants stock options to purchase an aggregate of 9,300,181 shares of Class A common stock upon the exercise of options under our 2012 Plan at exercise prices per share ranging from $1.34 to $2.05, for an aggregate exercise price of approximately $16.0 million.

(b) From February 2021 through August 2023, we issued and sold an aggregate of 52,333,442 shares of our Series C preferred stock at a purchase price of $2.6799 per share, for aggregate consideration of approximately $140.3 million.

The offers, sales and issuances of the securities described in Item (a) above were exempt from registration under the Securities Act under either (1) Rule 701 in that the transactions were under compensatory benefit plans and contracts relating to compensation as provided under Rule 701 or (2) Section 4(a)(2) of the Securities Act or Regulation D promulgated thereunder as transactions by an issuer not involving any public offering. The recipients of such securities were the registrant's directors, officers, employees, consultants or other service providers and received the securities under our 2012

Stock Plan. The recipients of securities in each of these transactions represented their intention to acquire the securities for investment only and not with view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions.

The offers, sales and issuances of the securities described in Item (b) above were exempt from registration under the Securities Act under Section 4(a)(2) of the Securities Act or Regulation D promulgated thereunder as transactions by an issuer not involving a public offering. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the securities issued in these transactions. Each of the recipients of securities in these transactions was an accredited person and had adequate access, through employment, business or other relationships, to information about the registrant.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits. The following exhibits are included herein or incorporated herein by reference:

Exhibit Number	Description
1.1*	Form of Underwriting Agreement.
3.1*	Amended and Restated Certificate of Incorporation of Registrant, as currently in effect.
3.2*	Form of Amended and Restated Certificate of Incorporation of Registrant, to be effective upon completion of this offering.
3.3	Bylaws of Registrant, as currently in effect.
3.4	Amendment No. 1 to Bylaws of Registrant, as currently in effect.
3.5*	Form of Amended and Restated Bylaws of Registrant, to be effective upon completion of this offering.
4.1*	Form of Registrant's common stock certificate.
4.2	Amended and Restated Investors' Rights Agreement, dated February 9, 2021, by and among the Registrant and the other parties thereto.
4.3^	Warrant to Purchase Stock, issued to Silicon Valley Bank, dated as of September 1, 2020.
4.4	Letter Agreement, dated as of July 9, 2021, by and among the Registrant, Baker Brothers Life Sciences, L.P. and 667, L.P.
4.5	Amended and Restated Registration Rights Agreement dated as of July 9, 2021, by and among the Registrant and Baker Bros. Advisors LP.
5.1*	Opinion of Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP.
10.1+*	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.
10.2+	2012 Equity Incentive Plan, as amended, and forms of agreements thereunder.
10.3+*	2024 Stock Plan and form of agreements thereunder.
10.4+*	2024 Employee Stock Purchase Plan.
10.5+*	Offer Letter, dated as of , by and between the Registrant and Carmine Stengone.
10.6+*	Offer Letter, dated as of , by and between the Registrant and Dan Lorrain Ph.D.

Exhibit Number	Description
10.7+*	Offer Letter, dated as of , by and between the Registrant and Peter Slover.
10.8^	Lease Agreement, dated January 3, 2018, by and between ARE-SD Region No. 44, LLC and the Registrant.
10.9	First Amendment to Lease dated February 16, 2018, by and between ARE-SD Region No. 44, LLC and the Registrant.
10.10	Second Amendment to Lease, dated April 2, 2018, by and between ARE-SD Region No. 44, LLC and the Registrant.
10.11	Third Amendment to Lease, dated June 15, 2021, by and between ARE-SD Region No. 44, LLC and the Registrant.
10.12	Lease Termination, dated October 25, 2023, by and between ARE-SD Region No. 44, LLC and the Registrant.
10.13^	Lease Agreement, dated October 25, 2023, by and between ARE-3535/3566 General Atomics Court, LLC and the Registrant.
10.14	Loan and Security Agreement, dated as of September 1, 2020, by and between the Registrant and Silicon Valley Bank.
10.15	First Amendment to Loan and Security Agreement, dated as of March 15, 2021, by and between the Registrant and Silicon Valley Bank.
10.16†	License Agreement, dated February 3, 2023, by and between the Registrant and Janssen Pharmaceutica NV.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2*	Consent of Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP (contained in Exhibit 5.1).
24.1	Power of Attorney (included on signature page).
107	Fee table.

* To be filed by amendment.
\+ Indicates management contract or compensatory plan.
† Pursuant to Item 601(b)(10) of Regulation S-K, certain confidential portions of this exhibit have been omitted by means of marking such portions with asterisks as the identified confidential portions are both not material and are the type of information that the Registrant treats as private or confidential. The Registrant agrees to supplementally furnish an unredacted copy of this exhibit to the SEC upon its request.
^ Pursuant to Item 601(a)(5) of Regulation S-K, certain exhibits and schedules have been omitted. The Registrant hereby undertakes to furnish supplementally a copy of any omitted exhibit or schedule upon request by the SEC.

(b) Financial Statement Schedules. All schedules have been omitted because the information required to be presented in them is not applicable or is shown in the financial statements or related notes.

Item 17. Undertakings

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on this 15th day of March, 2024.

Contineum Therapeutics, Inc.

/s/ Carmine Stengone
Carmine Stengone
President, Chief Executive Officer and Chairman

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Carmine Stengone and Peter Slover, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution, for him or her in any and all capacities, to sign any and all amendments to this registration statement (including post-effective amendments) and any registration statement related thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or his or her substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Carmine Stengone Carmine Stengone	President, Chief Executive Officer and Chairman (*Principal Executive Officer*)	March 15, 2024
/s/ Peter Slover Peter Slover	Chief Financial Officer (*Principal Financial Officer and Principal Accounting Officer*)	March 15, 2024
/s/ Clare Ozawa Clare Ozawa	Director	March 15, 2024
/s/ Stefan Larson Stefan Larson	Director	March 15, 2024
/s/ Todd Brady Todd Brady	Director	March 15, 2024
/s/ Lori Lyons-Williams Lori Lyons-Williams	Director	March 15, 2024
/s/ Evert Schimmelpennink Evert Schimmelpennink	Director	March 15, 2024
/s/ Olivia Ware Olivia Ware	Director	March 15, 2024

Exhibit 3.3

AMENDED AND RESTATED BYLAWS

OF

PIPELINE THERAPEUTICS, INC.

(A DELAWARE CORPORATION)

TABLE OF CONTENTS

AMENDED AND RESTATED BYLAWS

OF

PIPELINE THERAPEUTICS, INC.

(A DELAWARE CORPORATION)

ARTICLE I

OFFICES

Section 1. Registered Office. The registered office of the corporation in the State of Delaware shall be in the City of Wilmington, County of New Castle. (Del. Code Ann., tit. 8, § 131)

Section 2. Other Offices. The corporation shall also have and maintain an office or principal place of business at such place as may be fixed by the Board of Directors, and may also have offices at such other places, both within and without the State of Delaware, as the Board of Directors may from time to time determine or the business of the corporation may require. (Del. Code Ann., tit. 8, § 122(8))

ARTICLE II

CORPORATE SEAL

Section 3. Corporate Seal. The Board of Directors may adopt a corporate seal. The corporate seal shall consist of a die bearing the name of the corporation and the inscription, "Corporate Seal-Delaware." Said seal may be used by causing it or a facsimile thereof to be impressed or affixed or reproduced or otherwise. (Del. Code Ann., tit. 8, § 122(3))

ARTICLE III

STOCKHOLDERS' MEETINGS

Section 4. Place of Meetings. Meetings of the stockholders of the corporation may be held at such place, either within or without the State of Delaware, as may be determined from time to time by the Board of Directors. The Board of Directors may, in its sole discretion, determine that the meeting shall not be held at any place, but may instead be held solely by means of remote communication as provided under the Delaware General Corporation Law ("DGCL"). (Del. Code Ann., tit. 8, § 211(a))

Section 5. Annual Meeting.

(a) The annual meeting of the stockholders of the corporation, for the purpose of election of directors and for such other business as may lawfully come before it, shall be held on such date and at such time as may be designated from time to time by the Board of Directors. Nominations of persons for election to the Board of Directors of the corporation and the proposal of business to be considered by the stockholders may be made at an annual meeting of stockholders: (i) pursuant to the corporation's notice of meeting of stockholders; (ii) by or at the direction of the Board of Directors; or (iii) by any stockholder of the corporation who was a stockholder of record at the time of giving of notice provided for in the following paragraph, who is entitled to vote at the meeting and who complied with the notice procedures set forth in Section 5. (Del. Code Ann., tit. 8, § 211(b)).

(b) At an annual meeting of the stockholders, only such business shall be conducted as shall have been properly brought before the meeting. For nominations or other business to be properly brought before an annual meeting by a stockholder pursuant to clause (iii) of Section 5(a) of these Bylaws, (i) the stockholder must have given timely notice thereof in writing to the Secretary of the corporation, (ii) such other business must be a proper matter for stockholder action under the DGCL, (iii) if the stockholder, or the beneficial owner on whose behalf any such proposal or nomination is made, has provided the corporation with a Solicitation Notice (as defined in this Section 5(b)), such stockholder or beneficial owner must, in the case of a proposal, have delivered a proxy statement and form of proxy to holders of at least the percentage of the corporation's voting shares required under applicable law to carry any such proposal, or, in the case of a nomination or nominations, have delivered a proxy statement and form of proxy to holders of a percentage of the corporation's voting shares reasonably believed by such stockholder or beneficial owner to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder, and must, in either case, have included in such materials the Solicitation Notice, and (iv) if no Solicitation Notice relating thereto has been timely provided pursuant to this section, the stockholder or beneficial owner proposing such business or nomination must not have solicited a number of proxies sufficient to have required the delivery of such a Solicitation Notice under this Section 5. To be timely, a stockholder's notice shall be delivered to the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the first anniversary of the preceding year's annual meeting; provided, however, that in the event that the date of the annual meeting is advanced more than thirty (30) days prior to or delayed by more than thirty (30) days after the anniversary of the preceding year's annual meeting, notice by the stockholder to be timely must be so delivered not earlier than the close of business on the one hundred twentieth (120th) day prior to such annual meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such annual meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made. In no event shall the public announcement of an adjournment of an annual meeting commence a new time period for the giving of a stockholder's notice as described above. Such stockholder's notice shall set forth: (A) as to each person whom the stockholder proposed to nominate for election or reelection as a director all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended (the "1934

Act") and Rule 14a-4(d) thereunder (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected); (B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the reasons for conducting such business at the meeting and any material interest in such business of such stockholder and the beneficial owner, if any, on whose behalf the proposal is made; and (C) as to the stockholder giving the notice and the beneficial owner, if any, on whose behalf the nomination or proposal is made (i) the name and address of such stockholder, as they appear on the corporation's books, and of such beneficial owner, (ii) the class and number of shares of the corporation which are owned beneficially and of record by such stockholder and such beneficial owner, and (iii) whether either such stockholder or beneficial owner intends to deliver a proxy statement and form of proxy to holders of, in the case of the proposal, at least the percentage of the corporation's voting shares required under applicable law to carry the proposal or, in the case of a nomination or nominations, a sufficient number of holders of the corporation's voting shares to elect such nominee or nominees (an affirmative statement of such intent, a "Solicitation Notice").

(c) Notwithstanding anything in the second sentence of Section 5(b) of these Bylaws to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the corporation at least one hundred (100) days prior to the first anniversary of the preceding year's annual meeting, a stockholder's notice required by this Section 5 shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be delivered to the Secretary at the principal executive offices of the corporation not later than the close of business on the tenth (10^{th}) day following the day on which such public announcement is first made by the corporation.

(d) Only such persons who are nominated in accordance with the procedures set forth in this Section 5 shall be eligible to serve as directors and only such business shall be conducted at a meeting of stockholders as shall have been brought before the meeting in accordance with the procedures set forth in this Section 5. Except as otherwise provided by law, the Chairman of the meeting shall have the power and duty to determine whether a nomination or any business proposed to be brought before the meeting was made, or proposed, as the case may be, in accordance with the procedures set forth in these Bylaws and, if any proposed nomination or business is not in compliance with these Bylaws, to declare that such defective proposal or nomination shall not be presented for stockholder action at the meeting and shall be disregarded.

(e) Notwithstanding the foregoing provisions of this Section 5, in order to include information with respect to a stockholder proposal in the proxy statement and form of proxy for a stockholders' meeting, stockholders must provide notice as required by the regulations promulgated under the 1934 Act. Nothing in these Bylaws shall be deemed to affect any rights of stockholders to request inclusion of proposals in the corporation proxy statement pursuant to Rule 14a-8 under the 1934 Act.

(f) For purposes of this Section 5, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the 1934 Act.

Section 6. Special Meetings.

(a) Special meetings of the stockholders of the corporation may be called, for any purpose or purposes, by (i) the Chairman of the Board of Directors, (ii) the Chief Executive Officer, (iii) the Board of Directors pursuant to a resolution adopted by a majority of the total number of authorized directors (whether or not there exist any vacancies in previously authorized directorships at the time any such resolution is presented to the Board of Directors for adoption) or (iv) by the holders of shares entitled to cast not less than ten percent (10%) of the votes at the meeting, and shall be held at such place, on such date, and at such time as the Board of Directors shall fix.

At any time or times that the corporation is subject to Section 2115(b) of the California General Corporation Law ("CGCL"), stockholders holding five percent (5%) or more of the outstanding shares shall have the right to call a special meeting of stockholders as set forth in Section 18(b) herein.

(b) If a special meeting is properly called by any person or persons other than the Board of Directors, the request shall be in writing, specifying the general nature of the business proposed to be transacted, and shall be delivered personally or sent by certified or registered mail, return receipt requested, or by telegraphic or other facsimile transmission to the Chairman of the Board of Directors, the Chief Executive Officer, or the Secretary of the corporation. No business may be transacted at such special meeting otherwise than specified in such notice. The Board of Directors shall determine the time and place of such special meeting, which shall be held not less than thirty-five (35) nor more than one hundred twenty (120) days after the date of the receipt of the request. Upon determination of the time and place of the meeting, the officer receiving the request shall cause notice to be given to the stockholders entitled to vote, in accordance with the provisions of Section 7 of these Bylaws. Nothing contained in this paragraph (b) shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board of Directors may be held.

Section 7. Notice of Meetings. Except as otherwise provided by law, notice, given in writing or by electronic transmission, of each meeting of stockholders shall be given not less than ten (10) nor more than sixty (60) days before the date of the meeting to each stockholder entitled to vote at such meeting, such notice to specify the place, if any, date and hour, in the case of special meetings, the purpose or purposes of the meeting, and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at any such meeting. If mailed, notice is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the corporation. Notice of the time, place, if any, and purpose of any meeting of stockholders may be waived in writing, signed by the person entitled to notice thereof or by electronic transmission by such person, either before or after such meeting, and will be waived by any stockholder by his

attendance thereat in person, by remote communication, if applicable, or by proxy, except when the stockholder attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Any stockholder so waiving notice of such meeting shall be bound by the proceedings of any such meeting in all respects as if due notice thereof had been given. (Del. Code Ann., tit. 8, §§ 222, 229, 232)

Section 8. Quorum. At all meetings of stockholders, except where otherwise provided by statute or by the Certificate of Incorporation, or by these Bylaws, the presence, in person, by remote communication, if applicable, or by proxy duly authorized, of the holders of a majority of the outstanding shares of stock entitled to vote shall constitute a quorum for the transaction of business. In the absence of a quorum, any meeting of stockholders may be adjourned, from time to time, either by the chairman of the meeting or by vote of the holders of a majority of the shares represented thereat, but no other business shall be transacted at such meeting. The stockholders present at a duly called or convened meeting, at which a quorum is present, may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum. Except as otherwise provided by statute, or by the Certificate of Incorporation or these Bylaws, in all matters other than the election of directors, the affirmative vote of a majority of shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the subject matter shall be the act of the stockholders. Except as otherwise provided by statute, the Certificate of Incorporation or these Bylaws, directors shall be elected by a plurality of the votes of the shares present in person, by remote communication, if applicable, or represented by proxy duly authorized at the meeting and entitled to vote generally on the election of directors. Where a separate vote by a class or classes or series is required, except where otherwise provided by the statute or by the Certificate of Incorporation or these Bylaws, a majority of the outstanding shares of such class or classes or series, present in person, by remote communication, if applicable, or represented by proxy duly authorized, shall constitute a quorum entitled to take action with respect to that vote on that matter. Except where otherwise provided by statute or by the Certificate of Incorporation or these Bylaws, the affirmative vote of the majority (plurality, in the case of the election of directors) of shares of such class or classes or series present in person, by remote communication, if applicable, or represented by proxy at the meeting shall be the act of such class or classes or series. (Del. Code Ann., tit. 8, § 216)

Section 9. Adjournment and Notice of Adjourned Meetings. Any meeting of stockholders, whether annual or special, may be adjourned from time to time either by the chairman of the meeting or by the vote of a majority of the shares present in person, by remote communication, if applicable, or represented by proxy. When a meeting is adjourned to another time or place, if any, notice need not be given of the adjourned meeting if the time and place, if any, thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty (30) days or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting. (Del. Code Ann., tit. 8, § 222(c))

Section 10. Voting Rights. For the purpose of determining those stockholders entitled to vote at any meeting of the stockholders, except as otherwise provided by law, only persons in whose names shares stand on the stock records of the corporation on the record date, as provided in Section 12 of these Bylaws, shall be entitled to vote at any meeting of stockholders. Every person entitled to vote or execute consents shall have the right to do so either in person, by remote communication, if applicable, or by an agent or agents authorized by a proxy granted in accordance with Delaware law. An agent so appointed need not be a stockholder. No proxy shall be voted after three (3) years from its date of creation unless the proxy provides for a longer period. (Del. Code Ann., tit. 8, §§ 211(e), 212(b))

Section 11. Joint Owners of Stock. If shares or other securities having voting power stand of record in the names of two (2) or more persons, whether fiduciaries, members of a partnership, joint tenants, tenants in common, tenants by the entirety, or otherwise, or if two (2) or more persons have the same fiduciary relationship respecting the same shares, unless the Secretary is given written notice to the contrary and is furnished with a copy of the instrument or order appointing them or creating the relationship wherein it is so provided, their acts with respect to voting shall have the following effect: (a) if only one (1) votes, his act binds all; (b) if more than one (1) votes, the act of the majority so voting binds all; (c) if more than one (1) votes, but the vote is evenly split on any particular matter, each faction may vote the securities in question proportionally, or may apply to the Delaware Court of Chancery for relief as provided in the DGCL, Section 217(b). If the instrument filed with the Secretary shows that any such tenancy is held in unequal interests, a majority or even-split for the purpose of subsection (c) shall be a majority or even-split in interest. (Del. Code Ann., tit. 8, § 217(b))

Section 12. List of Stockholders. The Secretary shall prepare and make, at least ten (10) days before every meeting of stockholders, a complete list of the stockholders entitled to vote at said meeting, arranged in alphabetical order, showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or during ordinary business hours, at the principal place of business of the corporation. In the event that the corporation determines to make the list available on an electronic network, the corporation may take reasonable steps to ensure that such information is available only to stockholders of the corporation. The list shall be open to examination of any stockholder during the time of the meeting as provided by law. (Del. Code Ann., tit. 8, § 219)

Section 13. Action Without Meeting.

(a) Unless otherwise provided in the Certificate of Incorporation, any action required by statute to be taken at any annual or special meeting of the stockholders, or any action which may be taken at any annual or special meeting of the stockholders, may be taken without a meeting, without prior notice and without a vote, if a consent in writing, or by electronic transmission setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take

such action at a meeting at which all shares entitled to vote thereon were present and voted. (Del. Code Ann., tit. 8, § 228)

(b) Every written consent or electronic transmission shall bear the date of signature of each stockholder who signs the consent, and no written consent or electronic transmission shall be effective to take the corporate action referred to therein unless, within sixty (60) days of the earliest dated consent delivered to the corporation in the manner herein required, written consents or electronic transmissions signed by a sufficient number of stockholders to take action are delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. (Del. Code Ann., tit. 8, § 228)

(c) Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing or by electronic transmission and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of stockholders to take action were delivered to the corporation as provided in Section 228(c) of the DGCL. If the action which is consented to is such as would have required the filing of a certificate under any section of the DGCL if such action had been voted on by stockholders at a meeting thereof, then the certificate filed under such section shall state, in lieu of any statement required by such section concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

(d) A telegram, cablegram or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this section, provided that any such telegram, cablegram or other electronic transmission sets forth or is delivered with information from which the corporation can determine (i) that the telegram, cablegram or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such telegram, cablegram or electronic transmission. The date on which such telegram, cablegram or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by telegram, cablegram or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the corporation by delivery to its registered office in the state of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by telegram, cablegram or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by resolution of the board of directors of the corporation. Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for

any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing. (Del. Code Ann., tit. 8 § 228(d))

Section 14. Organization.

(a) At every meeting of stockholders, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or, if the President is absent, a chairman of the meeting chosen by a majority in interest of the stockholders entitled to vote, present in person or by proxy, shall act as chairman. The Secretary, or, in his absence, an Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

(b) The Board of Directors of the corporation shall be entitled to make such rules or regulations for the conduct of meetings of stockholders as it shall deem necessary, appropriate or convenient. Subject to such rules and regulations of the Board of Directors, if any, the chairman of the meeting shall have the right and authority to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are necessary, appropriate or convenient for the proper conduct of the meeting, including, without limitation, establishing an agenda or order of business for the meeting, rules and procedures for maintaining order at the meeting and the safety of those present, limitations on participation in such meeting to stockholders of record of the corporation and their duly authorized and constituted proxies and such other persons as the chairman shall permit, restrictions on entry to the meeting after the time fixed for the commencement thereof, limitations on the time allotted to questions or comments by participants and regulation of the opening and closing of the polls for balloting on matters which are to be voted on by ballot. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at the meeting shall be announced at the meeting. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with rules of parliamentary procedure.

ARTICLE IV

DIRECTORS

Section 15. Number and Term of Office.

The authorized number of directors of the corporation shall be fixed by the Board of Directors from time to time. Directors need not be stockholders unless so required by the Certificate of Incorporation. If for any cause, the directors shall not have been elected at an annual meeting, they may be elected as soon thereafter as convenient. (Del. Code Ann., tit. 8, §§ 141(b), 211(b), (c))

Section 16. Powers. The powers of the corporation shall be exercised, its business conducted and its property controlled by the Board of Directors, except as may be otherwise provided by statute or by the Certificate of Incorporation. (Del. Code Ann., tit. 8, § 141(a))

Section 17. Term of Directors.

(a) Subject to the rights of the holders of any series of Preferred Stock to elect additional directors under specified circumstances, directors shall be elected at each annual meeting of stockholders for a term of one year. Each director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director.

(b) No person entitled to vote at an election for directors may cumulate votes to which such person is entitled, unless, at the time of such election, the corporation is subject to Section 2115(b) of the CGCL. During such time or times that the corporation is subject to Section 2115(b) of the CGCL, every stockholder entitled to vote at an election for directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which such stockholder's shares are otherwise entitled, or distribute the stockholder's votes on the same principle among as many candidates as such stockholder thinks fit. No stockholder, however, shall be entitled to so cumulate such stockholder's votes unless (i) the names of such candidate or candidates have been placed in nomination prior to the voting and (ii) the stockholder has given notice at the meeting, prior to the voting, of such stockholder's intention to cumulate such stockholder's votes. If any stockholder has given proper notice to cumulate votes, all stockholders may cumulate their votes for any candidates who have been properly placed in nomination. Under cumulative voting, the candidates receiving the highest number of votes, up to the number of directors to be elected, are elected.

Section 18. Vacancies.

(a) Unless otherwise provided in the Certificate of Incorporation, and subject to the rights of the holders of any series of Preferred Stock, any vacancies on the Board of Directors resulting from death, resignation, disqualification, removal or other causes and any newly created directorships resulting from any increase in the number of directors shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled only by the affirmative vote of a majority of the directors then in office, even though less than a quorum of the Board of Directors, or by a sole remaining director, provided, however, that whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the Certificate of Incorporation, vacancies and newly created directorships of such class or classes or series shall, unless the Board of Directors determines by resolution that any such vacancies or newly created directorships shall be filled by stockholders, be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected. Any director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the director for which the vacancy was created or occurred and until such director's successor shall have been elected and qualified. A vacancy in the Board of Directors shall be deemed to exist under this Bylaw in the case of the death, removal or resignation of any director. (Del. Code Ann., tit. 8, § 223(a), (b)).

(b) At any time or times that the corporation is subject to §2115(b) of the CGCL, if, after the filling of any vacancy, the directors then in office who have been elected by stockholders shall constitute less than a majority of the directors then in office, then

(i) any holder or holders of an aggregate of five percent (5%) or more of the total number of shares at the time outstanding having the right to vote for those directors may call a special meeting of stockholders; or

(ii) the Superior Court of the proper county shall, upon application of such stockholder or stockholders, summarily order a special meeting of the stockholders, to be held to elect the entire board, all in accordance with Section 305(c) of the CGCL, the term of office of any director shall terminate upon that election of a successor. (CGCL §305(c).

Section 19. Resignation. Any director may resign at any time by delivering his or her notice in writing or by electronic transmission to the Secretary, such resignation to specify whether it will be effective at a particular time, upon receipt by the Secretary or at the pleasure of the Board of Directors. If no such specification is made, it shall be deemed effective at the pleasure of the Board of Directors. When one or more directors shall resign from the Board of Directors, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective, and each Director so chosen shall hold office for the unexpired portion of the term of the Director whose place shall be vacated and until his successor shall have been duly elected and qualified. (Del. Code Ann., tit. 8, §§ 141(b), 223(d))

Section 20. Removal.

(a) Subject to any limitations imposed by applicable law (and assuming the corporation is not subject to Section 2115 of the CGCL), the Board of Directors or any director may be removed from office at any time (i) with cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation entitled to vote generally at an election of directors or (ii) without cause by the affirmative vote of the holders of a majority of the voting power of all then-outstanding shares of capital stock of the corporation, entitled to vote generally at an election of directors.

(b) During such time or times that the corporation is subject to Section 2115(b) of the CGCL, the Board of Directors or any individual director may be removed from office at any time without cause by the affirmative vote of the holders of at least a majority of the outstanding shares entitled to vote on such removal; provided, however, that unless the entire Board is removed, no individual director may be removed when the votes cast against such director's removal, or not consenting in writing to such removal, would be sufficient to elect that director if voted cumulatively at an election which the same total number of votes were cast (or, if such action is taken by written consent, all shares entitled to vote were voted) and the entire number of directors authorized at the time of such director's most recent election were then being elected.

Section 21. Meetings

(a) Regular Meetings. Unless otherwise restricted by the Certificate of Incorporation, regular meetings of the Board of Directors may be held at any time or date and at any place within or without the State of Delaware which has been designated by the Board of Directors and publicized among all directors, either orally or in writing, including a voice-messaging system or other system designated to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means. No further notice shall be required for a regular meeting of the Board of Directors. (Del. Code Ann., tit. 8, § 141(g))

(b) Special Meetings. Unless otherwise restricted by the Certificate of Incorporation, special meetings of the Board of Directors may be held at any time and place within or without the State of Delaware whenever called by the Chairman of the Board, the President or any director. (Del. Code Ann., tit. 8, § 141(g))

(c) Meetings by Electronic Communications Equipment. Any member of the Board of Directors, or of any committee thereof, may participate in a meeting by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting by such means shall constitute presence in person at such meeting. (Del. Code Ann., tit. 8, § 141(i))

(d) Notice of Special Meetings. Notice of the time and place of all special meetings of the Board of Directors shall be orally or in writing, by telephone, including a voice messaging system or other system or technology designed to record and communicate messages, facsimile, telegraph or telex, or by electronic mail or other electronic means, during normal business hours, at least twenty-four (24) hours before the date and time of the meeting. If notice is sent by US mail, it shall be sent by first class mail, postage prepaid at least three (3) days before the date of the meeting. Notice of any meeting may be waived in writing or by electronic transmission at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends the meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. (Del. Code Ann., tit. 8, § 229)

(e) Waiver of Notice. The transaction of all business at any meeting of the Board of Directors, or any committee thereof, however called or noticed, or wherever held, shall be as valid as though had at a meeting duly held after regular call and notice, if a quorum be present and if, either before or after the meeting, each of the directors not present who did not receive notice shall sign a written waiver of notice or shall waive notice by electronic transmission. All such waivers shall be filed with the corporate records or made a part of the minutes of the meeting. (Del. Code Ann., tit. 8, § 229)

Section 22. Quorum and Voting.

(a) Unless the Certificate of Incorporation requires a greater number, a quorum of the Board of Directors shall consist of a majority of the exact number of directors fixed from time to time by the Board of Directors in accordance with the Certificate of Incorporation;

provided, however, at any meeting, whether a quorum be present or otherwise, a majority of the directors present may adjourn from time to time until the time fixed for the next regular meeting of the Board of Directors, without notice other than by announcement at the meeting. (Del. Code Ann., tit. 8, § 141(b))

(b) At each meeting of the Board of Directors at which a quorum is present, all questions and business shall be determined by the affirmative vote of a majority of the directors present, unless a different vote be required by law, the Certificate of Incorporation or these Bylaws. (Del. Code Ann., tit. 8, § 141(b))

Section 23. Action Without Meeting. Unless otherwise restricted by the Certificate of Incorporation or these Bylaws, any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent thereto in writing or by electronic transmission, and such writing or writings or transmission or transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. (Del. Code Ann., tit. 8, § 141(f))

Section 24. Fees and Compensation. Directors shall be entitled to such compensation for their services as may be approved by the Board of Directors, including, if so approved, by resolution of the Board of Directors, a fixed sum and expenses of attendance, if any, for attendance at each regular or special meeting of the Board of Directors and at any meeting of a committee of the Board of Directors. Nothing herein contained shall be construed to preclude any director from serving the corporation in any other capacity as an officer, agent, employee, or otherwise and receiving compensation therefor. (Del. Code Ann., tit. 8, § 141(h))

Section 25. Committees.

(a) Executive Committee. The Board of Directors may appoint an Executive Committee to consist of one (1) or more members of the Board of Directors. The Executive Committee, to the extent permitted by law and provided in the resolution of the Board of Directors shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopting, amending or repealing any bylaw of the corporation. (Del. Code Ann., tit. 8, § 141(c))

(b) Other Committees. The Board of Directors may, from time to time, appoint such other committees as may be permitted by law. Such other committees appointed by the Board of Directors shall consist of one (1) or more members of the Board of Directors and shall have such powers and perform such duties as may be prescribed by the resolution or resolutions creating such committees, but in no event shall any such committee have the powers denied to the Executive Committee in these Bylaws. (Del. Code Ann., tit. 8, § 141(c))

(c) Term. The Board of Directors, subject to any requirements of any outstanding series of Preferred Stock and the provisions of subsections (a) or (b) of this Bylaw may at any time increase or decrease the number of members of a committee or terminate the existence of a committee. The membership of a committee member shall terminate on the date of his death or voluntary resignation from the committee or from the Board of Directors. The Board of Directors may at any time for any reason remove any individual committee member and the Board of Directors may fill any committee vacancy created by death, resignation, removal or increase in the number of members of the committee. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee, and, in addition, in the absence or disqualification of any member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. (Del. Code Ann., tit. 8, §141(c))

(d) Meetings. Unless the Board of Directors shall otherwise provide, regular meetings of the Executive Committee or any other committee appointed pursuant to this Section 25 shall be held at such times and places as are determined by the Board of Directors, or by any such committee, and when notice thereof has been given to each member of such committee, no further notice of such regular meetings need be given thereafter. Special meetings of any such committee may be held at any place which has been determined from time to time by such committee, and may be called by any director who is a member of such committee, upon notice to the members of such committee of the time and place of such special meeting given in the manner provided for the giving of notice to members of the Board of Directors of the time and place of special meetings of the Board of Directors. Notice of any special meeting of any committee may be waived in writing at any time before or after the meeting and will be waived by any director by attendance thereat, except when the director attends such special meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Unless otherwise provided by the Board of Directors in the resolutions authorizing the creation of the committee, a majority of the authorized number of members of any such committee shall constitute a quorum for the transaction of business, and the act of a majority of those present at any meeting at which a quorum is present shall be the act of such committee. (Del. Code Ann., tit. 8, §§ 141(c), 229)

Section 26. Organization. At every meeting of the directors, the Chairman of the Board of Directors, or, if a Chairman has not been appointed or is absent, the President, or if the President is absent, the most senior Vice President, (if a director) or, in the absence of any such person, a chairman of the meeting chosen by a majority of the directors present, shall preside over the meeting. The Secretary, or in his absence, any Assistant Secretary directed to do so by the President, shall act as secretary of the meeting.

ARTICLE V

OFFICERS

Section 27. Officers Designated. The officers of the corporation shall include, if and when designated by the Board of Directors, the Chief Executive Officer**,** the President, one or more Vice Presidents, the Secretary, the Chief Financial Officer, the Treasurer and the Controller, all of whom shall be elected at the annual organizational meeting of the Board of Directors. The Board of Directors may also appoint one or more Assistant Secretaries, Assistant Treasurers, Assistant Controllers and such other officers and agents with such powers and duties as it shall deem necessary. The Board of Directors may assign such additional titles to one or more of the officers as it shall deem appropriate. Any one person may hold any number of offices of the corporation at any one time unless specifically prohibited therefrom by law. The salaries and other compensation of the officers of the corporation shall be fixed by or in the manner designated by the Board of Directors. (Del. Code Ann., tit. 8, §§ 122(5), 142(a), (b))

Section 28. Tenure and Duties of Officers.

(a) General. All officers shall hold office at the pleasure of the Board of Directors and until their successors shall have been duly elected and qualified, unless sooner removed. Any officer elected or appointed by the Board of Directors may be removed at any time by the Board of Directors. If the office of any officer becomes vacant for any reason, the vacancy may be filled by the Board of Directors. (Del. Code Ann., tit. 8, § 141(b), (e))

(b) Duties of Chairman of the Board of Directors. The Chairman of the Board of Directors, when present, shall preside at all meetings of the stockholders and the Board of Directors. The Chairman of the Board of Directors shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. If there is no President, then the Chairman of the Board of Directors shall also serve as the Chief Executive Officer of the corporation and shall have the powers and duties prescribed in paragraph (c) of this Section 28. (Del. Code Ann., tit. 8, § 142(a))

(c) Duties of President. The President shall preside at all meetings of the stockholders and at all meetings of the Board of Directors, unless the Chairman of the Board of Directors has been appointed and is present. Unless some other officer has been elected Chief Executive Officer of the corporation, the President shall be the chief executive officer of the corporation and shall, subject to the control of the Board of Directors, have general supervision, direction and control of the business and officers of the corporation. The President shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. (Del. Code Ann., tit. 8, § 142(a))

(d) Duties of Vice Presidents. The Vice Presidents may assume and perform the duties of the President in the absence or disability of the President or whenever the office of President is vacant. The Vice Presidents shall perform other duties commonly incident to their

office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. (Del. Code Ann., tit. 8, § 142(a))

(e) Duties of Secretary. The Secretary shall attend all meetings of the stockholders and of the Board of Directors and shall record all acts and proceedings thereof in the minute book of the corporation. The Secretary shall give notice in conformity with these Bylaws of all meetings of the stockholders and of all meetings of the Board of Directors and any committee thereof requiring notice. The Secretary shall perform all other duties provided for in these Bylaws and other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors shall designate from time to time. The President may direct any Assistant Secretary to assume and perform the duties of the Secretary in the absence or disability of the Secretary, and each Assistant Secretary shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. (Del. Code Ann., tit. 8, § 142(a))

(f) Duties of Chief Financial Officer. The Chief Financial Officer shall keep or cause to be kept the books of account of the corporation in a thorough and proper manner and shall render statements of the financial affairs of the corporation in such form and as often as required by the Board of Directors or the President. The Chief Financial Officer, subject to the order of the Board of Directors, shall have the custody of all funds and securities of the corporation. The Chief Financial Officer shall perform other duties commonly incident to his office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. The President may direct the Treasurer or any Assistant Treasurer, or the Controller or any Assistant Controller to assume and perform the duties of the Chief Financial Officer in the absence or disability of the Chief Financial Officer, and each Treasurer and Assistant Treasurer and each Controller and Assistant Controller shall perform other duties commonly incident to the office and shall also perform such other duties and have such other powers as the Board of Directors or the President shall designate from time to time. (Del. Code Ann., tit. 8, § 142(a))

Section 29. Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

Section 30. Resignations. Any officer may resign at any time by giving notice in writing or by electronic transmission notice to the Board of Directors or to the President or to the Secretary. Any such resignation shall be effective when received by the person or persons to whom such notice is given, unless a later time is specified therein, in which event the resignation shall become effective at such later time. Unless otherwise specified in such notice, the acceptance of any such resignation shall not be necessary to make it effective. Any resignation shall be without prejudice to the rights, if any, of the corporation under any contract with the resigning officer. (Del. Code Ann., tit. 8, § 142(b))

Section 31. Removal. Any officer may be removed from office at any time, either with or without cause, by the affirmative vote of a majority of the directors in office at the time, or by

the unanimous written consent of the directors in office at the time, or by any committee or superior officers upon whom such power of removal may have been conferred by the Board of Directors.

ARTICLE VI

EXECUTION OF CORPORATE INSTRUMENTS AND VOTING OF SECURITIES OWNED BY THE CORPORATION

Section 32. Execution of Corporate Instruments. The Board of Directors may, in its discretion, determine the method and designate the signatory officer or officers, or other person or persons, to execute on behalf of the corporation any corporate instrument or document, or to sign on behalf of the corporation the corporate name without limitation, or to enter into contracts on behalf of the corporation, except where otherwise provided by law or these Bylaws, and such execution or signature shall be binding upon the corporation. (Del. Code Ann., tit. 8, §§ 103(a), 142(a), 158)

All checks and drafts drawn on banks or other depositaries on funds to the credit of the corporation or in special accounts of the corporation shall be signed by such person or persons as the Board of Directors shall authorize so to do.

Unless authorized or ratified by the Board of Directors or within the agency power of an officer, no officer, agent or employee shall have any power or authority to bind the corporation by any contract or engagement or to pledge its credit or to render it liable for any purpose or for any amount. (Del. Code Ann., tit. 8, §§ 103(a), 142(a), 158).

Section 33. Voting of Securities Owned by the Corporation. All stock and other securities of other corporations owned or held by the corporation for itself, or for other parties in any capacity, shall be voted, and all proxies with respect thereto shall be executed, by the person authorized so to do by resolution of the Board of Directors, or, in the absence of such authorization, by the Chairman of the Board of Directors, the Chief Executive Officer, the President, or any Vice President. (Del. Code Ann., tit. 8, § 123)

ARTICLE VII

SHARES OF STOCK

Section 34. Form and Execution of Certificates. The shares of the corporation shall be represented by certificates, or shall be uncertificated. Certificates for the shares of stock, if any, shall be in such form as is consistent with the Certificate of Incorporation and applicable law. Every holder of stock in the corporation represented by certificate shall be entitled to have a certificate signed by or in the name of the corporation by the Chairman of the Board of Directors, or the President or any Vice President and by the Treasurer or Assistant Treasurer or the Secretary or Assistant Secretary, certifying the number of shares owned by him in the corporation. Any or all of the signatures on the certificate may be facsimiles. In case any officer, transfer agent, or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent, or registrar before such certificate is issued, it may be

issued with the same effect as if he were such officer, transfer agent, or registrar at the date of issue. (Del. Code Ann., tit. 8, § 158)

Section 35. Lost Certificates. A new certificate or certificates shall be issued in place of any certificate or certificates theretofore issued by the corporation alleged to have been lost, stolen, or destroyed, upon the making of an affidavit of that fact by the person claiming the certificate of stock to be lost, stolen, or destroyed. The corporation may require, as a condition precedent to the issuance of a new certificate or certificates, the owner of such lost, stolen, or destroyed certificate or certificates, or the owner's legal representative, to agree to indemnify the corporation in such manner as it shall require or to give the corporation a surety bond in such form and amount as it may direct as indemnity against any claim that may be made against the corporation with respect to the certificate alleged to have been lost, stolen, or destroyed. (Del. Code Ann., tit. 8, § 167)

Section 36. Transfers.

(a) Transfers of record of shares of stock of the corporation shall be made only upon its books by the holders thereof, in person or by attorney duly authorized, and, in the case of stock represented by certificate, upon the surrender of a properly endorsed certificate or certificates for a like number of shares. (Del. Code Ann., tit. 8, § 201, tit. 6, § 8- 401(1))

(b) The corporation shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the corporation to restrict the transfer of shares of stock of the corporation of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL. (Del. Code Ann., tit. 8, § 160 (a))

Section 37. Fixing Record Dates.

(a) In order that the corporation may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, subject to applicable law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; *provided, however,* that the Board of Directors may fix a new record date for the adjourned meeting.

(b) In order that the corporation may determine the stockholders entitled to consent to corporate action in writing without a meeting, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which date shall not be more than ten (10) days after the date upon which the resolution fixing the record date is adopted by the Board of Directors. Any

stockholder of record seeking to have the stockholders authorize or take corporate action by written consent shall, by written notice to the Secretary, request the Board of Directors to fix a record date. The Board of Directors shall promptly, but in all events within ten (10) days after the date on which such a request is received, adopt a resolution fixing the record date. If no record date has been fixed by the Board of Directors within ten (10) days of the date on which such a request is received, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting, when no prior action by the Board of Directors is required by applicable law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to the corporation's registered office shall be by hand or by certified or registered mail, return receipt requested. If no record date has been fixed by the Board of Directors and prior action by the Board of Directors is required by law, the record date for determining stockholders entitled to consent to corporate action in writing without a meeting shall be at the close of business on the day on which the Board of Directors adopts the resolution taking such prior action.

(c) In order that the corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix, in advance, a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty (60) days prior to such action. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto. (Del. Code Ann., tit. 8, § 213)

Section 38. Registered Stockholders. The corporation shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends, and to vote as such owner, and shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of any other person whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware. (Del. Code Ann., tit. 8, §§ 213(a), 219)

ARTICLE VIII

OTHER SECURITIES OF THE CORPORATION

Section 39. Execution of Other Securities. All bonds, debentures and other corporate securities of the corporation, other than stock certificates (covered in Section 34), may be signed by the Chairman of the Board of Directors, the President or any Vice President, or such other person as may be authorized by the Board of Directors, and the corporate seal impressed thereon or a facsimile of such seal imprinted thereon and attested by the signature of the Secretary or an Assistant Secretary, or the Chief Financial Officer or Treasurer or an Assistant Treasurer; *provided, however,* that where any such bond, debenture or other corporate security shall be authenticated by the manual signature, or where permissible facsimile signature, of a trustee under

an indenture pursuant to which such bond, debenture or other corporate security shall be issued, the signatures of the persons signing and attesting the corporate seal on such bond, debenture or other corporate security may be the imprinted facsimile of the signatures of such persons. Interest coupons appertaining to any such bond, debenture or other corporate security, authenticated by a trustee as aforesaid, shall be signed by the Treasurer or an Assistant Treasurer of the corporation or such other person as may be authorized by the Board of Directors, or bear imprinted thereon the facsimile signature of such person. In case any officer who shall have signed or attested any bond, debenture or other corporate security, or whose facsimile signature shall appear thereon or on any such interest coupon, shall have ceased to be such officer before the bond, debenture or other corporate security so signed or attested shall have been delivered, such bond, debenture or other corporate security nevertheless may be adopted by the corporation and issued and delivered as though the person who signed the same or whose facsimile signature shall have been used thereon had not ceased to be such officer of the corporation.

ARTICLE IX

DIVIDENDS

Section 40. Declaration of Dividends. Dividends upon the capital stock of the corporation, subject to the provisions of the Certificate of Incorporation and applicable law, if any, may be declared by the Board of Directors pursuant to law at any regular or special meeting. Dividends may be paid in cash, in property, or in shares of the capital stock, subject to the provisions of the Certificate of Incorporation and applicable law. (Del. Code Ann., tit. 8, §§ 170, 173)

Section 41. Dividend Reserve. Before payment of any dividend, there may be set aside out of any funds of the corporation available for dividends such sum or sums as the Board of Directors from time to time, in their absolute discretion, think proper as a reserve or reserves to meet contingencies, or for equalizing dividends, or for repairing or maintaining any property of the corporation, or for such other purpose as the Board of Directors shall think conducive to the interests of the corporation, and the Board of Directors may modify or abolish any such reserve in the manner in which it was created. (Del. Code Ann., tit. 8, § 171)

ARTICLE X

FISCAL YEAR

Section 42. Fiscal Year. The fiscal year of the corporation shall be fixed by resolution of the Board of Directors.

ARTICLE XI

INDEMNIFICATION

Section 43. Indemnification of Directors, Executive Officers, Other Officers, Employees and Other Agents.

(a) Directors and Officers. The corporation shall indemnify its directors and officers to the fullest extent not prohibited by the DGCL or any other applicable law; *provided, however,* that the corporation may modify the extent of such indemnification by individual contracts with its directors and officers; and, *provided, further,* that the corporation shall not be required to indemnify any director or officer in connection with any proceeding (or part thereof) initiated by such person unless (i) such indemnification is expressly required to be made by law, (ii) the proceeding was authorized by the Board of Directors of the corporation, (iii) such indemnification is provided by the corporation, in its sole discretion, pursuant to the powers vested in the corporation under the Delaware General Corporation Law or any other applicable law or (iv) such indemnification is required to be made under subsection (d).

(b) Employees and Other Agents. The corporation shall have power to indemnify its employees and other agents as set forth in the DGCL or any other applicable law. The Board of Directors shall have the power to delegate the determination of whether indemnification shall be given to any such person to such officers or other persons as the Board of Directors shall determine.

(c) Expenses. The corporation shall advance to any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he is or was a director or officer, of the corporation, or is or was serving at the request of the corporation as a director or officer of another corporation, partnership, joint venture, trust or other enterprise, prior to the final disposition of the proceeding, promptly following request therefor, all expenses incurred by any director or officer in connection with such proceeding, provided, however, that, if the DGCL requires, an advancement of expenses incurred by a director or officer in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the corporation of an undertaking, by or on behalf of such indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal that such indemnitee is not entitled to be indemnified for such expenses under this Section 43 or otherwise.

Notwithstanding the foregoing, unless otherwise determined pursuant to paragraph (e) of this Bylaw, no advance shall be made by the corporation to an officer of the corporation (except by reason of the fact that such officer is or was a director of the corporation, in which event this paragraph shall not apply) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, if a determination is reasonably and promptly made (i) by a majority vote of a quorum consisting of directors who were not parties to the proceeding, even if not a quorum, or (ii) by a committee of such directors designated by a majority of such directors, even though less

than a quorum, or (iii) if there are no such directors, or such directors so direct, by independent legal counsel in a written opinion, that the facts known to the decision-making party at the time such determination is made demonstrate clearly and convincingly that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation.

(d) Enforcement. Without the necessity of entering into an express contract, all rights to indemnification and advances to directors and officers under this Bylaw shall be deemed to be contractual rights and be effective to the same extent and as if provided for in a contract between the corporation and the director or officer. Any right to indemnification or advances granted by this Bylaw to a director or officer shall be enforceable by or on behalf of the person holding such right in any court of competent jurisdiction if (i) the claim for indemnification or advances is denied, in whole or in part, or (ii) no disposition of such claim is made within ninety (90) days of request therefor. The claimant in such enforcement action, if successful in whole or in part, shall be entitled to be paid also the expense of prosecuting the claim. In connection with any claim for indemnification, the corporation shall be entitled to raise as a defense to any such action that the claimant has not met the standards of conduct that make it permissible under the DGCL or any other applicable law for the corporation to indemnify the claimant for the amount claimed. In connection with any claim by an officer of the corporation (except in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such officer is or was a director of the corporation) for advances, the corporation shall be entitled to raise a defense as to any such action clear and convincing evidence that such person acted in bad faith or in a manner that such person did not believe to be in or not opposed to the best interests of the corporation, or with respect to any criminal action or proceeding that such person acted without reasonable cause to believe that his conduct was lawful. Neither the failure of the corporation (including its Board of Directors, independent legal counsel or its stockholders) to have made a determination prior to the commencement of such action that indemnification of the claimant is proper in the circumstances because he has met the applicable standard of conduct set forth in the DGCL or any other applicable law, nor an actual determination by the corporation (including its Board of Directors, independent legal counsel or its stockholders) that the claimant has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that claimant has not met the applicable standard of conduct. In any suit brought by a director or officer to enforce a right to indemnification or to an advancement of expenses hereunder, the burden of proving that the director or officer is not entitled to be indemnified, or to such advancement of expenses, under this Article XI or otherwise shall be on the corporation.

(e) Non-Exclusivity of Rights. The rights conferred on any person by this Bylaw shall not be exclusive of any other right which such person may have or hereafter acquire under any applicable statute, provision of the Certificate of Incorporation, Bylaws, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in another capacity while holding office. The corporation is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advances, to the fullest extent not prohibited by the DGCL or any other applicable law.

(f) Survival of Rights. The rights conferred on any person by this Bylaw shall continue as to a person who has ceased to be a director, officer, employee or other agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

(g) Insurance. To the fullest extent permitted by the DGCL, or any other applicable law, the corporation, upon approval by the Board of Directors, may purchase insurance on behalf of any person required or permitted to be indemnified pursuant to this Bylaw.

(h) Amendments. Any repeal or modification of this Bylaw shall only be prospective and shall not affect the rights under this Bylaw in effect at the time of the alleged occurrence of any action or omission to act that is the cause of any proceeding against any agent of the corporation.

(i) Saving Clause. If this Bylaw or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the corporation shall nevertheless indemnify each director and officer to the full extent not prohibited by any applicable portion of this Bylaw that shall not have been invalidated, or by any other applicable law. If this Section 43 shall be invalid due to the application of the indemnification provisions of another jurisdiction, then the corporation shall indemnify each director and officer to the full extent under applicable law.

(j) Certain Definitions. For the purposes of this Bylaw, the following definitions shall apply:

(1) The term "proceeding" shall be broadly construed and shall include, without limitation, the investigation, preparation, prosecution, defense, settlement, arbitration and appeal of, and the giving of testimony in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative.

(2) The term "expenses" shall be broadly construed and shall include, without limitation, court costs, attorneys' fees, witness fees, fines, amounts paid in settlement or judgment and any other costs and expenses of any nature or kind incurred in connection with any proceeding.

(3) The term the "corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this Bylaw with respect to the resulting or surviving corporation as he would have with respect to such constituent corporation if its separate existence had continued.

(4) References to a "director," "executive officer," "officer," "employee," or "agent" of the corporation shall include, without limitation, situations where such person is serving at the request of the corporation as, respectively, a director, executive officer,

officer, employee, trustee or agent of another corporation, partnership, joint venture, trust or other enterprise.

(5) References to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "serving at the request of the corporation" shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee, or agent with respect to an employee benefit plan, its participants, or beneficiaries; and a person who acted in good faith and in a manner he reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "not opposed to the best interests of the corporation" as referred to in this Bylaw.

ARTICLE XII

NOTICES

Section 44. Notices.

(a) Notice to Stockholders. Written notice to stockholders of stockholder meetings shall be given as provided in Section 7 herein. Without limiting the manner by which notice may otherwise be given effectively to stockholders under any agreement or contract with such stockholder, and except as otherwise required by law, written notice to stockholders for purposes other than stockholder meetings may be sent by United States mail or nationally recognized overnight courier, or by facsimile, telegraph or telex or by electronic mail or other electronic means. (Del. Code Ann., tit. 8, §§ 222, 232)

(b) Notice to Directors. Any notice required to be given to any director may be given by the method stated in subsection (a), or as provided for in Section 21 of these Bylaws. If such notice is not delivered personally, it shall be sent to such address as such director shall have filed in writing with the Secretary, or, in the absence of such filing, to the last known post office address of such director.

(c) Affidavit of Mailing. An affidavit of mailing, executed by a duly authorized and competent employee of the corporation or its transfer agent appointed with respect to the class of stock affected or other agent, specifying the name and address or the names and addresses of the stockholder or stockholders, or director or directors, to whom any such notice or notices was or were given, and the time and method of giving the same, shall in the absence of fraud, be prima facie evidence of the facts therein contained. (Del. Code Ann., tit. 8, § 222)

(d) Methods of Notice. It shall not be necessary that the same method of giving notice be employed in respect of all recipients of notice, but one permissible method may be employed in respect of any one or more, and any other permissible method or methods may be employed in respect of any other or others.

(e) Notice to Person with Whom Communication Is Unlawful. Whenever notice is required to be given, under any provision of law or of the Certificate of Incorporation or

Bylaws of the corporation, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the corporation is such as to require the filing of a certificate under any provision of the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

(f) Notice to Stockholders Sharing an Address. Except as otherwise prohibited under DGCL, any notice given under the provisions of DGCL, the Certificate of Incorporation or the Bylaws shall be effective if given by a single written notice to stockholders who share an address if consented to by the stockholders at that address to whom such notice is given. Such consent shall have been deemed to have been given if such stockholder fails to object in writing to the corporation within 60 days of having been given notice by the corporation of its intention to send the single notice. Any consent shall be revocable by the stockholder by written notice to the corporation.

ARTICLE XIII

AMENDMENTS

Section 45. Amendments. The Board of Directors is expressly empowered to adopt, amend or repeal Bylaws of the corporation. The stockholders shall also have power to adopt, amend or repeal the Bylaws of the corporation; provided, however, that, in addition to any vote of the holders of any class or series of stock of the corporation required by law or by the Certificate of Incorporation, such action by stockholders shall requite the affirmative vote of the holders of at least a majority of the voting power of all of the then-outstanding shares of the capital stock of the corporation entitled to vote generally in the election of directors, voting together as a single class.

ARTICLE XIV

RIGHT OF FIRST REFUSAL

Section 46. Right of First Refusal. No stockholder shall sell, assign, pledge, or in any manner transfer any of the shares of stock of the corporation or any right or interest therein, whether voluntarily or by operation of law, or by gift or otherwise, except by a transfer which meets the requirements hereinafter set forth in this bylaw:

(a) If the stockholder desires to sell or otherwise transfer any of his shares of stock, then the stockholder shall first give written notice thereof to the corporation. The notice shall name the proposed transferee and state the number of shares to be transferred, the proposed consideration, and all other terms and conditions of the proposed transfer.

(b) For thirty (30) days following receipt of such notice, the corporation shall have the option to purchase all (but not less than all) of the shares specified in the notice at the price and upon the terms set forth in such notice; *provided, however,* that, with the consent of the stockholder, the corporation shall have the option to purchase a lesser portion of the shares specified in said notice at the price and upon the terms set forth therein. In the event of a gift, property settlement or other transfer in which the proposed transferee is not paying the full price for the shares, and that is not otherwise exempted from the provisions of this Section 46, the price shall be deemed to be the fair market value of the stock at such time as determined in good faith by the Board of Directors. In the event the corporation elects to purchase all of the shares or, with consent of the stockholder, a lesser portion of the shares, it shall give written notice to the transferring stockholder of its election and settlement for said shares shall be made as provided below in paragraph (d).

(c) The corporation may assign its rights hereunder.

(d) In the event the corporation and/or its assignee(s) elect to acquire any of the shares of the transferring stockholder as specified in said transferring stockholder's notice, the Secretary of the corporation shall so notify the transferring stockholder and settlement thereof shall be made in cash within thirty (30) days after the Secretary of the corporation receives said transferring stockholder's notice; provided that if the terms of payment set forth in said transferring stockholder's notice were other than cash against delivery, the corporation and/or its assignee(s) shall pay for said shares on the same terms and conditions set forth in said transferring stockholder's notice.

(e) In the event the corporation and/or its assignees(s) do not elect to acquire all of the shares specified in the transferring stockholder's notice, said transferring stockholder may, within the sixty-day period following the expiration of the option rights granted to the corporation and/or its assignees(s) herein, transfer the shares specified in said transferring stockholder's notice which were not acquired by the corporation and/or its assignees(s) as specified in said transferring stockholder's notice. All shares so sold by said transferring stockholder shall continue to be subject to the provisions of this bylaw in the same manner as before said transfer.

(f) Anything to the contrary contained herein notwithstanding, the following transactions shall be exempt from the provisions of this bylaw:

(1) A stockholder's transfer of any or all shares held either during such stockholder's lifetime or on death by will or intestacy to such stockholder's immediate family or to any custodian or trustee for the account of such stockholder or such stockholder's immediate family or to any limited partnership of which the stockholder, members of such stockholder's immediate family or any trust for the account of such stockholder or such stockholder's immediate family will be the general of limited partner(s) of such partnership. "Immediate family" as used herein shall mean spouse, lineal descendant, father, mother, brother, or sister of the stockholder making such transfer.

(2) A stockholder's bona fide pledge or mortgage of any shares with a commercial lending institution, provided that any subsequent transfer of said shares by said institution shall be conducted in the manner set forth in this bylaw.

(3) A stockholder's transfer of any or all of such stockholder's shares to the corporation or to any other stockholder of the corporation.

(4) A stockholder's transfer of any or all of such stockholder's shares to a person who, at the time of such transfer, is an officer or director of the corporation.

(5) A corporate stockholder's transfer of any or all of its shares pursuant to and in accordance with the terms of any merger, consolidation, reclassification of shares or capital reorganization of the corporate stockholder, or pursuant to a sale of all or substantially all of the stock or assets of a corporate stockholder.

(6) A corporate stockholder's transfer of any or all of its shares to any or all of its stockholders.

(7) A transfer by a stockholder which is a limited or general partnership to any or all of its partners or former partners.

In any such case, the transferee, assignee, or other recipient shall receive and hold such stock subject to the provisions of this bylaw, and there shall be no further transfer of such stock except in accord with this bylaw.

(g) The provisions of this bylaw may be waived with respect to any transfer either by the corporation, upon duly authorized action of its Board of Directors, or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation (excluding the votes represented by those shares to be transferred by the transferring stockholder). This bylaw may be amended or repealed either by a duly authorized action of the Board of Directors or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation.

(h) Any sale or transfer, or purported sale or transfer, of securities of the corporation shall be null and void unless the terms, conditions, and provisions of this bylaw are strictly observed and followed.

(i) The foregoing right of first refusal shall terminate on either of the following dates, whichever shall first occur:

(1) On the date which is one day prior to the tenth anniversary of the original adoption of these Bylaws; or

(2) Upon the date securities of the corporation are first offered to the public pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Securities Act of 1933, as amended.

(j) The certificates representing shares of stock of the corporation shall bear on their face the following legend so long as the foregoing right of first refusal remains in effect:

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION AND/OR ITS ASSIGNEE(S), AS PROVIDED IN THE BYLAWS OF THE CORPORATION."

ARTICLE XV

LOANS TO OFFICERS

Section 47. Loans to Officers. Except as otherwise prohibited under applicable law, the corporation may lend money to, or guarantee any obligation of, or otherwise assist any officer or other employee of the corporation or of its subsidiaries, including any officer or employee who is a Director of the corporation or its subsidiaries, whenever, in the judgment of the Board of Directors, such loan, guarantee or assistance may reasonably be expected to benefit the corporation. The loan, guarantee or other assistance may be with or without interest and may be unsecured, or secured in such manner as the Board of Directors shall approve, including, without limitation, a pledge of shares of stock of the corporation. Nothing in these Bylaws shall be deemed to deny, limit or restrict the powers of guaranty or warranty of the corporation at common law or under any statute. (Del. Code Ann., tit. 8, §143)

ARTICLE XVI

MISCELLANEOUS

Section 48. Annual Report.

(a) Subject to the provisions of paragraph (b) of this Bylaw, the Board of Directors shall cause an annual report to be sent to each stockholder of the corporation not later than one hundred twenty (120) days after the close of the corporation's fiscal year. Such report shall include a balance sheet as of the end of such fiscal year and an income statement and statement of changes in financial position for such fiscal year, accompanied by any report thereon of independent accounts or, if there is no such report, the certificate of an authorized officer of the corporation that such statements were prepared without audit from the books and records of the corporation. When there are more than 100 stockholders of record of the corporation's shares, as determined by Section 605 of the CGCL, additional information as required by Section 1501(b) of the CGCL shall also be contained in such report, provided that if the corporation has a class of securities registered under Section 12 of the 1934 Act, the 1934 Act shall take precedence. Such report shall be sent to stockholders at least fifteen (15) days prior to the next annual meeting of stockholders after the end of the fiscal year to which it relates.

(b) If and so long as there are fewer than 100 holders of record of the corporation's shares, the requirement of sending of an annual report to the stockholders of the corporation is hereby expressly waived.

Exhibit 3.4

AMENDMENT NO. 1 TO THE

BYLAWS

OF

PIPELINE THERAPEUTICS, INC.
(formerly, Sirocco Therapeutics, Inc.)

THIS AMENDMENT NO. 1 TO THE BYLAWS (the "Bylaws") of Pipeline Therapeutics, Inc., a Delaware corporation (the "Company"), is made as of this 7th day of February, 2021.

1. Article XIV, Section 46 is hereby amended and restated in its entirety as follows:

"**Section 46. Right of First Refusal.** No stockholder shall sell, assign, pledge, or in any manner transfer any of the shares of the corporation's common stock or any right or interest therein, whether voluntarily or by operation of law, or by gift or otherwise, except by a transfer which meets the requirements hereinafter set forth in this bylaw:

(a) If the stockholder desires to sell or otherwise transfer any of his shares of common stock, then the stockholder shall first give written notice thereof to the corporation. The notice shall name the proposed transferee and state the number of shares of common stock to be transferred, the proposed consideration, and all other terms and conditions of the proposed transfer.

(b) For thirty (30) days following receipt of such notice, the corporation shall have the option to purchase all (but not less than all) of the shares of common stock specified in the notice at the price and upon the terms set forth in such notice; *provided, however,* that, with the consent of the stockholder, the corporation shall have the option to purchase a lesser portion of the shares of common stock specified in said notice at the price and upon the terms set forth therein. In the event of a gift, property settlement or other transfer in which the proposed transferee is not paying the full price for the shares of common stock, and that is not otherwise exempted from the provisions of this Section 46, the price shall be deemed to be the fair market value of the common stock at such time as determined in good faith by the Board of Directors. In the event the corporation elects to purchase all of the shares of common stock or, with consent of the stockholder, a lesser portion of the shares of common stock, it shall give written notice to the transferring stockholder of its election and settlement for said shares of common stock shall be made as provided below in paragraph (d).

(c) The corporation may assign its rights hereunder.

(d) In the event the corporation and/or its assignee(s) elect to acquire any of the shares of common stock of the transferring stockholder as specified in said transferring stockholder's notice, the Secretary of the corporation shall so notify the transferring stockholder and settlement thereof shall be made in cash within thirty (30) days after the Secretary of the corporation receives said transferring stockholder's notice; provided that if the terms of payment set forth in said transferring stockholder's notice were other than cash against delivery, the

corporation and/or its assignee(s) shall pay for said shares of common stock on the same terms and conditions set forth in said transferring stockholder's notice.

(e) In the event the corporation and/or its assignees(s) do not elect to acquire all of the shares of common stock specified in the transferring stockholder's notice, said transferring stockholder may, within the sixty-day period following the expiration of the option rights granted to the corporation and/or its assignees(s) herein, transfer the shares of common stock specified in said transferring stockholder's notice which were not acquired by the corporation and/or its assignees(s) as specified in said transferring stockholder's notice. All shares of common stock so sold by said transferring stockholder shall continue to be subject to the provisions of this bylaw in the same manner as before said transfer.

(f) Anything to the contrary contained herein notwithstanding, the following transactions shall be exempt from the provisions of this bylaw:

(1) A stockholder's transfer of any or all shares of common stock held either during such stockholder's lifetime or on death by will or intestacy to such stockholder's immediate family or to any custodian or trustee for the account of such stockholder or such stockholder's immediate family or to any limited partnership of which the stockholder, members of such stockholder's immediate family or any trust for the account of such stockholder or such stockholder's immediate family will be the general of limited partner(s) of such partnership. "Immediate family" as used herein shall mean spouse, lineal descendant, father, mother, brother, or sister of the stockholder making such transfer.

(2) A stockholder's transfer of any or all of such stockholder's shares of common stock to the corporation or to any other stockholder of the corporation.

(3) A stockholder's transfer of any or all of such stockholder's shares of common stock to a person who, at the time of such transfer, is an officer or director of the corporation.

(4) A corporate stockholder's transfer of any or all of its shares of common stock pursuant to and in accordance with the terms of any merger, consolidation, reclassification of shares or capital reorganization of the corporate stockholder, or pursuant to a sale of all or substantially all of the stock or assets of a corporate stockholder.

(5) A corporate stockholder's transfer of any or all of its shares of common stock to any or all of its stockholders.

(6) A transfer by a stockholder which is a limited or general partnership to any or all of its partners or former partners.

In any such case, the transferee, assignee, or other recipient shall receive and hold such common stock subject to the provisions of this bylaw, and there shall be no further transfer of such common stock except in accord with this bylaw.

(g) The provisions of this bylaw may be waived with respect to any transfer either by the corporation, upon duly authorized action of its Board of Directors, or by the

stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation (excluding the votes represented by those shares of common stock to be transferred by the transferring stockholder). This bylaw may be amended or repealed either by a duly authorized action of the Board of Directors or by the stockholders, upon the express written consent of the owners of a majority of the voting power of the corporation.

(h) Any sale or transfer, or purported sale or transfer, of securities of the corporation shall be null and void unless the terms, conditions, and provisions of this bylaw are strictly observed and followed.

(i) The foregoing right of first refusal shall terminate upon the date securities of the corporation are first offered to the public pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Securities Act of 1933, as amended.

(j) The certificates representing shares of stock of the corporation shall bear on their face the following legend so long as the foregoing right of first refusal remains in effect:

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A RIGHT OF FIRST REFUSAL OPTION IN FAVOR OF THE CORPORATION AND/OR ITS ASSIGNEE(S), AS PROVIDED IN THE BYLAWS OF THE CORPORATION.

(k) Notwithstanding anything to the contrary in this Section 46, the restrictions and obligations in this Section 46 shall not apply to any shares of the corporation's preferred stock or to any shares of common stock issued or issuable upon conversion of any shares of the corporation's preferred stock. "

2. Article XVI is hereby amended by adding the following as Section 49:

"**49. Resolution of Conflicts**

To the fullest extent permitted by applicable law, in the event that the provisions of the Bylaws conflict with either the provisions of (i) that certain investors' rights agreement dated as of February 9, 2021 between the Corporation and the Investors party thereto (as may be amended, amended and restated, modified or supplemented from time to time) (the "***Investors' Rights Agreement***") or (ii) that certain voting agreement dated as of February 9, 2021 between the Corporation, the Key Holders party thereto and the Investors party thereto (as may be amended, amended and restated, modified or supplemented from time to time) (the "***Voting Agreement***"), in any such case, the terms of the Investors' Rights Agreement or the Voting Agreement, as applicable, shall take precedence over the Bylaws Fourth Amended and Restated Certificate of Incorporation, to the extent applicable."

3. Except as specifically amended herein, the Bylaws of the Company shall remain unchanged and in full force and effect.

[*Remainder of Page Intentionally Left Blank*]

CERTIFICATE OF SECRETARY OF
PIPELINE THERAPEUTICS, INC.

The undersigned certifies:

1. That the undersigned is the duly elected and acting Secretary of Pipeline Therapeutics, Inc., a Delaware corporation (the "Company"); and

2. That the foregoing Amendment No. 1 to the Bylaws constitutes the entire amendment to the Bylaws of the Corporation as duly adopted by the stockholders of the Company on February 7, 2021.

IN WITNESS WHEREOF, I have hereunto subscribed my name as of this 7th day of February, 2021.

By: /s/ Carmine Stengone
Name: Carmine Stengone
Title: Secretary

PIPELINE THERAPEUTICS, INC.
AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

THIS AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT (the "***Agreement***") is entered into as of the 9th day of February, 2021, by and among **PIPELINE THERAPEUTICS, INC.** (f/k/a Sirocco Therapeutics, Inc.), a Delaware corporation (the "***Company***"), and the investors listed on **Exhibit A** hereto, referred to hereinafter as the "***Investors***" and each individually as an "***Investor***."

RECITALS

WHEREAS, the Company is party to that certain Series C Preferred Stock Purchase Agreement dated as of the date hereof, by and among the Company and the other parties named therein (the "***Purchase Agreement***"), pursuant to which the Company is issuing shares of the Company's Series C Preferred Stock (the "***Series C Preferred Stock***") to certain Investors and under which certain of the obligations of the parties thereto are conditioned upon the Company's execution and delivery of this Agreement;

WHEREAS, certain of the Investors (the "***Prior Investors***") are holders of the Company's Series A Preferred Stock (the "***Series A Stock***") and/or Series A-1 Preferred Stock (the "***Series A-1 Preferred Stock***" and together with the Series A Stock, the "***Series A Preferred Stock***") and/or Series B Preferred Stock (the "***Series B Preferred Stock***" and collectively with the Series B Preferred Stock the "***Preferred Stock***");

WHEREAS, the Prior Investors and the Company are parties to that certain Amended and Investor Rights Agreement dated as of November 26, 2019 (the "***Prior Agreement***");

WHEREAS, the parties to the Prior Agreement desire to amend and restate the Prior Agreement and to accept the rights and covenants hereof in lieu of their rights and covenants under the Prior Agreement, with the Prior Agreement to be amended and restated in its entirety by this Agreement; and

WHEREAS, in connection with the consummation of the transactions contemplated by the Purchase Agreement, the parties desire to enter into this Agreement in order to grant registration rights, information rights and other rights to the Investors as set forth herein.

NOW, THEREFORE, in consideration of these premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

SECTION 1. GENERAL.

1.1 Definitions. As used in this Agreement the following terms shall have the following respective meanings:

(a) "***Affiliate***" means, with respect to any Person, any other Person who or which, directly or indirectly, controls, is controlled by, or is under common control with such

specified Person, including, without limitation, any general partner, managing member, officer, director, trustee or manager of such Person and any venture capital fund or investment fund now or hereafter existing that is controlled by one or more general partners or managing members of, or is under common investment management with, such Person. For purposes of this definition, "***control***" means, directly or indirectly, ownership of 50% or more of the legal or beneficial interest in any Person or possession of the power to direct or cause the direction of the management and/or policies of such Person, whether through the ownership of (voting) securities, by contract or otherwise.

(b) "***Board***" shall mean the Board of Directors of the Company.

(c) "***Common Stock***" means the common stock of the Company.

(d) "***Competitor***" means a Person engaged, directly or indirectly (including, without limitation, through any partnership, limited liability company, corporation, joint venture or similar arrangement (whether now existing or formed hereafter)), in the developing small molecule therapeutics focused on neuroregeneration, but shall not include any financial investment firm or collective investment vehicle that, together with its Affiliates, holds less than ten percent (10%) of the outstanding equity of any Competitor and does not, nor do any of its Affiliates, have, or have the right to designate, any members of the Board of Directors of any Competitor.

(e) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended.

(f) "***Form S-3***" means such form under the Securities Act as in effect on the date hereof or any successor or similar registration form under the Securities Act subsequently adopted by the SEC which permits inclusion or incorporation of substantial information by reference to other documents filed by the Company with the SEC.

(g) "***Holder***" means any person that is party to this Agreement owning of record Registrable Securities that have not been sold to the public or any assignee of record of such Registrable Securities in accordance with Section 2.9 hereof.

(h) "***Initial Offering***" means the Company's first firm commitment underwritten public offering of the Common Stock registered under the Securities Act.

(i) "***Major Investor***" means an Investor (with its Affiliates) and any Person to whom any of the rights of such Person are assigned pursuant to Section 5.2 that owns at least 500,000 Registrable Securities (as adjusted for stock dividends, combinations, splits, recapitalizations and the like).

(j) "***Person***" means any individual, corporation, partnership, trust, limited liability company, joint venture, association or other entity.

(k) "***Register***," "***registered***," and "***registration***" refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of effectiveness of such registration statement or document by the SEC.

(l) "***Registrable Securities***" means (i) Common Stock issuable or issued upon conversion of the Shares, (ii) (A) any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company held by the Investors and (B) any Common Stock held by the Investors as of the date hereof, and (iii) any Common Stock of the Company issued as (or issuable upon the conversion or exercise of any warrant, right or other security which is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, such above-described securities. Notwithstanding the foregoing, Registrable Securities shall not include any securities (x) sold by a person to the public either pursuant to a registration statement or Rule 144; (y) sold in a private transaction in which the transferor's rights under Section 2 of this Agreement are not assigned or (z) that may be sold following the Initial Offering during any ninety (90) day period by a Holder, *provided* that all shares of Common Stock issuable or issued upon conversion of the Shares held by and issuable to such Holder (and its Affiliates) may be sold pursuant to Rule 144 during such ninety (90) day period.

(m) "***Registrable Securities then outstanding***" shall be the number of shares of Common Stock that are Registrable Securities and either (i) are then issued and outstanding or (ii) are issuable pursuant to then exercisable or convertible securities.

(n) "***Registration Expenses***" shall mean all expenses incurred by the Company in complying with Sections 2.2, 2.3, and 2.4 hereof, including, without limitation, all registration and filing fees, printing expenses, fees and disbursements of counsel for the Company, reasonable fees and disbursements not to exceed forty-five thousand dollars ($45,000) of a single special counsel for the Holders per registration, blue sky fees and expenses and the expense of any special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company which shall be paid in any event by the Company).

(o) "***Restated Certificate***" means the Company's Fourth Amended and Restated Certificate of Incorporation, as may be amended from time to time.

(p) "***SEC***" or "***Commission***" means the Securities and Exchange Commission.

(q) "***Securities Act***" shall mean the Securities Act of 1933, as amended.

(r) "***Selling Expenses***" shall mean all underwriting discounts and selling commissions applicable to any registration hereunder.

(s) "***Shares***" shall mean the shares of Preferred Stock held from time to time by the Investors listed on **Exhibit A** hereto and their permitted assigns.

(t) "***Special Registration Statement***" shall mean a registration statement relating to (i) any employee benefit plan, (ii) any corporate reorganization or transaction under Rule 145 of the Securities Act, including any registration statement related to the issuance or resale of securities issued in such a transaction, or (iii) any stock issued upon conversion of debt securities.

SECTION 2. REGISTRATION; RESTRICTIONS ON TRANSFER.

2.1 Restrictions on Transfer.

(a) Each Holder agrees not to make any disposition of all or any portion of the Shares or Registrable Securities unless and until:

(i) there is then in effect a registration statement under the Securities Act covering such proposed disposition and such disposition is made in accordance with such registration statement; or

(ii) (A) The transferee has agreed in writing to be bound by the terms of this Agreement, (B) such Holder shall have notified the Company of the proposed disposition and shall have furnished the Company with a detailed statement of the circumstances surrounding the proposed disposition, and (C) if reasonably requested by the Company, such Holder shall have furnished the Company with an opinion of counsel, reasonably satisfactory to the Company, that such disposition will not require registration of such shares under the Securities Act. It is agreed that the Company will not require opinions of counsel for transactions made in compliance with Rule 144. After its Initial Offering, the Company will not require any transferee pursuant to Rule 144 to be bound by the terms of this Agreement if the shares so transferred do not remain Registrable Securities hereunder following such transfer.

(b) Notwithstanding the provisions of Section 2.1(a) above, no such restriction shall apply to a transfer by a Holder that is (A) a partnership transferring to its partners or former partners in accordance with partnership interests, (B) a corporation transferring to a wholly-owned subsidiary or a parent corporation that owns all of the capital stock of the Holder, (C) a limited liability company transferring to (x) one or more affiliated partnerships or funds managed by it, (y) its directors or officers, or (z) its members or former members in accordance with their interest in the limited liability company (or equivalent outside of the United States of America), (D) an individual transferring to the Holder's family member or trust for the benefit of an individual Holder, or (E) an entity transferring to any Affiliate of such Holder; *provided* that in each case the transferee will agree in writing to be subject to the terms of this Agreement to the same extent as if he were an original Holder hereunder. For the avoidance of doubt, with respect to Hadean Capital I AS and Hventures Capital I AB, the restrictions set out in Section 2.1(a) shall not apply in case of transfers between these entities or other entities that are funds managed by Hadean Ventures AS or Hventures AB.

(c) Each certificate, instrument or book entry representing Shares or Registrable Securities shall be stamped or otherwise imprinted with legends substantially similar to the following (in addition to any legend required under applicable state securities laws):

> THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "***ACT***") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, ASSIGNED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR UNLESS THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL SATISFACTORY TO THE

COMPANY AND ITS COUNSEL THAT SUCH REGISTRATION IS NOT REQUIRED.

THE SALE, PLEDGE, HYPOTHECATION OR TRANSFER OF THE SECURITIES REPRESENTED BY THIS CERTIFICATE IS SUBJECT TO THE TERMS AND CONDITIONS OF A CERTAIN INVESTOR RIGHTS AGREEMENT BY AND BETWEEN THE STOCKHOLDER AND THE COMPANY. COPIES OF SUCH AGREEMENT MAY BE OBTAINED UPON WRITTEN REQUEST TO THE SECRETARY OF THE COMPANY.

(d) The Company shall be obligated to reissue promptly unlegended certificates at the request of any Holder thereof if the Company has completed its Initial Offering and the Holder shall have obtained an opinion of counsel (which counsel may be counsel to the Company) reasonably acceptable to the Company to the effect that the securities proposed to be disposed of may lawfully be so disposed of without registration, qualification and legend, *provided that* the second legend listed above shall be removed only at such time as the Holder of such certificate is no longer subject to any restrictions hereunder.

(e) Any legend endorsed on an instrument pursuant to applicable state securities laws and the stop-transfer instructions with respect to such securities shall be removed upon receipt by the Company of an order of the appropriate blue sky authority authorizing such removal.

(f) Notwithstanding anything to the contrary contained herein, in no event will the restrictions set forth in this Section 2.1 be applicable to any shares purchased in connection with a public offering by the Company or on the open market.

2.2 Demand Registration.

(a) Subject to the conditions of this Section 2.2, if the Company shall receive a written request from the Holders of at least sixty percent (60%) of the Registrable Securities (the "***Initiating Holders***") that the Company file a registration statement under the Securities Act covering the registration of at least eighty-five percent (85%) of the Registrable Securities then outstanding (or a lesser percentage if the anticipated aggregate offering price, net of underwriting discounts and commissions, is not less than $10,000,000), then the Company shall use commercially reasonable efforts to, within thirty (30) days of the receipt thereof, give written notice of such request to all Holders, and subject to the limitations of this Section 2.2, effect, as expeditiously as reasonably possible, the registration under the Securities Act of all Registrable Securities that all Holders request to be registered.

(b) If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to this Section 2.2 or any request pursuant to Section 2.4 and the Company shall include such information in the written notice referred to in Section 2.2(a) or Section 2.4(a), as applicable. In such event, the right of any Holder to include its Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the

extent provided herein. All Holders proposing to distribute their securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Initiating Holders (which underwriter or underwriters shall be reasonably acceptable to the Company). Notwithstanding any other provision of this Section 2.2 or Section 2.4, if the underwriter in good faith advises the Company that marketing factors require a limitation of the number of securities to be underwritten (including Registrable Securities) then the Company shall so advise all Holders of Registrable Securities that would otherwise be underwritten pursuant hereto, and the number of shares that may be included in the underwriting shall be allocated to the Holders of such Registrable Securities on a pro rata basis based on the number of Registrable Securities held by all such Holders (including the Initiating Holders); *provided*, *however*, that the number of shares of Registrable Securities to be included in such underwriting and registration shall not be reduced unless all other securities of the Company are first entirely excluded from the underwriting and registration. Any Registrable Securities excluded or withdrawn from such underwriting shall be withdrawn from the registration.

(c) The Company shall not be required to effect a registration pursuant to this Section 2.2:

(i) prior to the earlier of (A) the fifth anniversary of the date of this Agreement or (B) the expiration of the restrictions on transfer set forth in Section 2.11 following the Initial Offering;

(ii) after the Company has effected two (2) registrations pursuant to this Section 2.2, and such registrations have been declared or ordered effective;

(iii) during the period starting with the date of filing of, and ending on the date one hundred eighty (180) days following the effective date of the registration statement pertaining to the Initial Offering (or such longer period as may be determined pursuant to Section 2.11 hereof); *provided* that the Company makes reasonable good faith efforts to cause such registration statement to become effective;

(iv) if within thirty (30) days of receipt of a written request from Initiating Holders pursuant to Section 2.2(a), the Company gives notice to the Holders of the Company's intention to file a registration statement for its Initial Offering within ninety (90) days;

(v) if the Company shall furnish to Holders requesting a registration statement pursuant to this Section 2.2 a certificate signed by the Chairman of the Board stating that in the good faith judgment of the Board, it would be materially detrimental to the Company and its stockholders for such registration statement to be effected at such time because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, in which event the Company shall have the right to defer such filing for a period of not more than ninety (90) days after receipt of the request of the Initiating Holders; *provided* that such right to delay a request shall be exercised by the Company not more than once in any twelve (12) month period; and *provided further* that the Company shall not register any securities for its own account

or that of any other stockholder during such ninety (90) day period other than a Special Registration Statement;

(vi) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be registered on Form S-3 pursuant to a request made pursuant to Section 2.4 below; or

(vii) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

2.3 Piggyback Registrations. The Company shall notify all Holders of Registrable Securities in writing at least fifteen (15) business days prior to the filing of any registration statement under the Securities Act for purposes of a public offering of securities of the Company (including, but not limited to, registration statements relating to secondary offerings of securities of the Company, but excluding Special Registration Statements) and will afford each such Holder an opportunity to include in such registration statement all or part of such Registrable Securities held by such Holder. Each Holder desiring to include in any such registration statement all or any part of the Registrable Securities held by it shall, within fifteen (15) business days after the above-described notice from the Company, so notify the Company in writing. Such notice shall state the intended method of disposition of the Registrable Securities by such Holder. If a Holder decides not to include all of its Registrable Securities in any registration statement thereafter filed by the Company, such Holder shall nevertheless continue to have the right to include any Registrable Securities in any subsequent registration statement or registration statements as may be filed by the Company with respect to offerings of its securities, all upon the terms and conditions set forth herein. Upon the request of any Holder timely given in accordance with this Section 2.3, the Company shall, subject to the provisions of this Section 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration on the same terms and conditions as the other securities proposed to be sold.

(a) Underwriting. If the registration statement of which the Company gives notice under this Section 2.3 is for an underwritten offering, the Company shall so advise the Holders of Registrable Securities. In such event, the right of any such Holder to include Registrable Securities in a registration pursuant to this Section 2.3 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their Registrable Securities through such underwriting shall enter into an underwriting agreement in customary form with the underwriter or underwriters selected for such underwriting by the Company. Notwithstanding any other provision of this Agreement, if the Company and underwriter determine in good faith that marketing factors require a limitation of the number of shares to be underwritten, the number of shares that may be included in the underwriting shall be allocated, first, to the Company; second, to the Holders on a *pro rata* basis based on the total number of Registrable Securities held by the Holders; and third, to any stockholder of the Company (other than a Holder) on a *pro rata* basis; *provided*, *however*, that no such reduction shall reduce the amount of securities of the selling Holders included in the registration below thirty-five percent (35%) of the total amount of securities requested to be included by the Holders in such registration, unless such offering is the Initial Offering and such registration does not include shares of any other selling

stockholders, in which event any or all of the Registrable Securities of the Holders may be excluded in accordance with the immediately preceding clause. In no event will shares of any other selling stockholder be included in such registration that would reduce the number of shares which may be included by Holders without the written consent of the Initiating Holders. If any Holder disapproves of the terms of any such underwriting, such Holder may elect to withdraw therefrom by written notice to the Company and the underwriter, delivered at least ten (10) business days prior to the effective date of the registration statement. Any Registrable Securities excluded or withdrawn from such underwriting shall be excluded and withdrawn from the registration. For any Holder which is a partnership, limited liability company or corporation, the partners, retired partners, members, retired members and stockholders of such Holder, or the estates and family members of any such partners, retired partners, members and retired members and any trusts for the benefit of any of the foregoing persons shall be deemed to be a single "***Holder***," and any *pro rata* reduction with respect to such "***Holder***" shall be based upon the aggregate amount of shares carrying registration rights owned by all entities and individuals included in such "***Holder***," as defined in this sentence.

(b) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.3 whether or not any Holder has elected to include securities in such registration, and shall promptly notify any Holder that has elected to include shares in such registration of such termination or withdrawal. The Registration Expenses of such withdrawn registration shall be borne by the Company in accordance with Section 2.5 hereof.

2.4 Form S-3 Registration. In case the Company shall receive from any Holder or Holders of Registrable Securities a written request or requests that the Company effect a registration on Form S-3 (or any successor to Form S-3) or any similar short-form registration statement and any related qualification or compliance with respect to all or a part of the Registrable Securities owned by such Holder or Holders, the Company will:

(a) promptly give written notice of the proposed registration, and any related qualification or compliance, to all other Holders of Registrable Securities; and

(b) as soon as practicable, effect such registration and all such qualifications and compliances as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Holder's or Holders' Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any other Holder or Holders joining in such request as are specified in a written request given within fifteen (15) business days after receipt of such written notice from the Company; *provided, however*, that the Company shall not be obligated to effect any such registration, qualification or compliance pursuant to this Section 2.4:

(i) if Form S-3 is not available for such offering by the Holders;

(ii) if the Holders, together with the holders of any other securities of the Company entitled to inclusion in such registration, propose to sell Registrable Securities and such other securities (if any) at an aggregate price to the public of less than two million dollars ($2,000,000);

(iii) if within thirty (30) days of receipt of a written request from any Holder or Holders pursuant to this Section 2.4, the Company gives notice to such Holder or Holders of the Company's intention to make a public offering within ninety (90) days, other than pursuant to a Special Registration Statement;

(iv) if the Company shall furnish to the Holders a certificate signed by the Chairman of the Board stating that in the good faith judgment of the Board, it would be materially detrimental to the Company and its stockholders for such Form S-3 registration to be effected at such time because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, in which event the Company shall have the right to defer the filing of the Form S-3 registration statement for a period of not more than ninety (90) days after receipt of the request of the Holder or Holders under this Section 2.4; *provided*, that such right to delay a request shall be exercised by the Company not more than twice in any twelve (12) month period; and *provided further* that the Company shall not register any securities for its own account or that of any other stockholder during such ninety (90) day period other than a Special Registration Statement;

(v) if the Company has, within the twelve (12) month period preceding the date of such request, already effected two (2) registrations on Form S-3 for the Holders pursuant to this Section 2.4; or

(vi) in any particular jurisdiction in which the Company would be required to qualify to do business or to execute a general consent to service of process in effecting such registration, qualification or compliance.

(c) Subject to the foregoing, the Company shall file a Form S-3 registration statement covering the Registrable Securities and other securities so requested to be registered as soon as practicable after receipt of the requests of the Holders. Registrations effected pursuant to this Section 2.4 shall not be counted as demands for registration or registrations effected pursuant to Section 2.2.

2.5 Expenses of Registration. Except as specifically provided herein, all Registration Expenses incurred in connection with any registration, qualification or compliance pursuant to Section 2.2, 2.3, or 2.4 herein shall be borne by the Company. All Selling Expenses incurred in connection with any registrations hereunder, shall be borne by the holders of the securities so registered *pro rata* on the basis of the number of shares so registered. The Company shall not, however, be required to pay for expenses of any registration proceeding begun pursuant to Section 2.2 or 2.4, the request of which has been subsequently withdrawn by the Initiating Holders unless (a) the withdrawal is based upon material adverse information concerning the Company of which the Initiating Holders were not aware at the time of such request or (b) the Initiating Holders (excluding, for this purpose, any Registrable Securities within clause (ii) of the definition of Registrable Securities) agree to deem such registration to have been effected as of the date of such withdrawal for purposes of determining whether the Company shall be obligated pursuant to Section 2.2(c) or 2.4(b), as applicable, to undertake any subsequent registration, in which event

such right shall be forfeited by all Holders). If the Holders are required to pay the Registration Expenses, such expenses shall be borne by the holders of securities (including Registrable Securities) requesting such registration in proportion to the number of shares for which registration was requested. If the Company is required to pay the Registration Expenses of a withdrawn offering pursuant to clause (a) above, then such registration shall not be deemed to have been effected for purposes of determining whether the Company shall be obligated pursuant to Section 2.2(c) or 2.4(b), as applicable, to undertake any subsequent registration.

2.6 Obligations of the Company. Whenever required to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use all reasonable efforts to cause such registration statement to become effective as promptly as practicable and to keep such registration statement effective (including by filing any amendments and supplements as may be necessary to keep such registration statement current and up-to-date) for up to sixty (60) days or, if earlier, until the Holder or Holders have completed the distribution related thereto; *provided*, *however*, that at any time, upon written notice to the participating Holders and for a period not to exceed sixty (60) days thereafter (the "***Suspension Period***"), the Company may delay the filing or effectiveness of any registration statement or suspend the use of any registration statement (and the Holders hereby agree not to offer or sell any Registrable Securities pursuant to such registration statement during the Suspension Period) if the Company reasonably believes that there is or may be in existence material nonpublic information or events involving the Company, the failure of which to be disclosed in the prospectus included in the registration statement could result in a Violation (as defined below). In the event that the Company shall exercise its right to delay the filing or effectiveness or suspend the use of a registration hereunder, the applicable time period during which the registration statement is to remain effective shall be extended by a period of time equal to the duration of the Suspension Period. The Company may extend the Suspension Period for an additional consecutive sixty (60) days with the consent of the holders of at least eighty-five percent (85%) of the Registrable Securities registered under the applicable registration statement, which consent shall not be unreasonably withheld. No more than two (2) such Suspension Periods shall occur in any twelve (12) month period. If so directed by the Company, all Holders registering shares under such registration statement shall (i) not offer to sell any Registrable Securities pursuant to the registration statement during the period in which the delay or suspension is in effect after receiving notice of such delay or suspension; and (ii) use their commercially reasonable efforts to deliver to the Company (at the Company's expense) all copies, other than permanent file copies then in such Holders' possession, of the prospectus relating to such Registrable Securities in such Holders' possession at the time of receipt of such notice. Notwithstanding the foregoing, the Company shall not be required to file, cause to become effective or maintain the effectiveness of any registration statement other than a registration statement on Form S-3 that contemplates a distribution of securities on a delayed or continuous basis pursuant to Rule 415 under the Securities Act.

(b) Prepare and file with the SEC such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition

of all securities covered by such registration statement for the period set forth in Section 2.6(a) above.

(c) Furnish to the Holders and their attorneys, accountants and other representatives such number of copies of a prospectus, including a preliminary prospectus, in conformity with the requirements of the Securities Act, and such other documents as they may reasonably request in order to facilitate the disposition of Registrable Securities owned by them and provide the Holders the reasonable opportunity to review and comment on each draft of such prospectus or preliminary prospectus, and any amendment or supplement thereto, and consider and incorporate in good faith any reasonable comments furnished by such Holders.

(d) Use its reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; *provided* that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form (including any "lock-ups" on behalf of the Company and its directors and officers), with the managing underwriter(s) of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the occurrence of any event which would cause the prospectus included in such registration statement, as then in effect, to include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing. The Company will use commercially reasonable efforts to amend or supplement such prospectus in order to cause such prospectus not to include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing.

(g) Use its commercially reasonable efforts to furnish, on the date that such Registrable Securities are delivered to the underwriters for sale, if such securities are being sold through underwriters, (i) an opinion, dated as of such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is reasonably acceptable to the managing underwriter, , addressed to the underwriters, if any, and (ii) a letter, dated as of such date, from the independent certified public accountants of the Company, in form and substance as is as is reasonably acceptable to the managing underwriter, addressed to the underwriters.

(h) Use commercially reasonable efforts to obtain all other approvals, consents, exemptions or authorizations from such governmental agencies or authorities as may be necessary to enable the Holders and underwriters to consummate the disposition of Registrable Securities.

(i) Promptly make available for inspection by the Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith, subject to such Holders, and any attorney, accountant, agent, or other representative thereof, entering into a customary non-disclosure agreement.

(j) Use its commercially reasonable efforts to avoid the issuance of, or, if issued, obtain the withdrawal of (i) any order stopping or suspending the effectiveness of a registration statement or suspending or preventing the use of any related prospectus, or (ii) any suspension of the qualification (or exemption from qualification) of any of the Registrable Securities for sale in any jurisdiction, as promptly as practicable.

(k) Notify each Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed.

(l) After such registration statement becomes effective, notify each Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

(m) Use commercially reasonable efforts to assist a Holder in facilitating any sales (including but not limited to private sales) or other transfers of Registrable Securities by, among other things, providing officers' certificates and other customary closing documents reasonably requested by a Holder.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.7 Delay of Registration; Furnishing Information.

(a) No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any such registration as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

(b) It shall be a condition precedent to the obligations of the Company to take any action pursuant to Section 2.2, 2.3, or 2.4 that the selling Holders shall furnish to the Company such information regarding themselves, the Registrable Securities held by them and the intended method of disposition of such securities as shall be required to effect the registration of their Registrable Securities.

(c) The Company shall have no obligation with respect to any registration requested pursuant to Section 2.2 or Section 2.4 if the number of shares or the anticipated aggregate offering price of the Registrable Securities to be included in the registration does not equal or exceed the number of shares or the anticipated aggregate offering price required to originally trigger the Company's obligation to initiate such registration as specified in Section 2.2 or Section 2.4, whichever is applicable.

2.8 Indemnification. In the event any Registrable Securities are included in a registration statement under Sections 2.2, 2.3, or 2.4:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each Holder, its Affiliates, and its and their respective partners, members, managers, stockholders, officers and directors, legal counsel and accountants, any underwriter (as defined in the Securities Act) for such Holder and each person, if any, who controls such Holder or Affiliate or underwriter within the meaning of the Securities Act or the Exchange Act, against any losses, claims, damages, or liabilities (joint or several) to which they may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any of the following statements, omissions or violations (collectively, a "***Violation***") by the Company: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement or incorporated by reference therein, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto and any related document incident to any such registration, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law in connection with the offering covered by such registration statement; and the Company will reimburse each such Holder, Affiliate, partner, member, stockholder, officer, director, underwriter or other aforementioned Person or controlling person for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; *provided however*, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, conditioned or delayed, nor shall the Company be liable in any such case for any such loss, claim, damage, liability or action to the extent that it arises out of or is based upon a Violation which occurs in reliance upon and in conformity with written information furnished expressly for use in connection with such registration by such Holder, partner, member, stockholder officer, director, underwriter or other aforementioned Person or controlling person of such Holder.

(b) To the extent permitted by law, each Holder will, severally and not jointly with any other Holder and only if Registrable Securities held by such Holder are included in the securities as to which such registration, qualification or compliance is being effected, indemnify and hold harmless the Company, each of its directors, its officers and each person, if any, who controls the Company within the meaning of the Securities Act, any underwriter and any other Holder selling securities under such registration statement or any of such other Holder's partners, directors or officers or any person who controls such Holder, against any losses, claims, damages

or liabilities (joint or several) to which the Company or any such director, officer, controlling person, underwriter or other such Holder, or partner, director, officer or controlling person of such other Holder may become subject under the Securities Act, the Exchange Act or other federal or state law, insofar as such losses, claims, damages or liabilities (or actions in respect thereto) arise out of or are based upon any of the following statements: (i) any untrue statement or alleged untrue statement of a material fact contained in such registration statement or incorporated by reference therein, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto, (ii) the omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act (collectively, a "***Holder Violation***"), in each case to the extent (and only to the extent) that such Holder Violation occurs in reliance upon and in conformity with written information furnished by such Holder under an instrument duly executed by such Holder and stated to be specifically for use in connection with such registration; and each such Holder will reimburse any reasonable and documented out-of-pocket legal or other expenses reasonably incurred by the Company or any such director, officer, controlling person, underwriter or other Holder, or partner, officer, director or controlling person of such other Holder in connection with investigating or defending any such loss, claim, damage, liability or action if it is judicially determined that there was such a Holder Violation; *provided, however,* that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such loss, claim, damage, liability or action if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld, conditioned or delayed; *provided further*, that in no event shall any indemnity under this Section 2.8 exceed the net proceeds from the offering received by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action (including any governmental action), such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, deliver to the indemnifying party a written notice of the commencement thereof and the indemnifying party shall have the right to participate in, and, to the extent the indemnifying party so desires, jointly with any other indemnifying party similarly noticed, to assume the defense thereof with counsel mutually satisfactory to the parties; *provided, however,* that an indemnified party shall have the right to retain its own counsel, with the fees and expenses thereof to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such proceeding or the indemnified party may have defenses not available to the indemnifying party in respect of such claim. The failure to deliver written notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8 to the extent, and only to the extent, prejudicial to its ability to defend such action, but the omission so to deliver written notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

(d) If the indemnification provided for in this Section 2.8 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any losses, claims, damages or liabilities referred to herein, the indemnifying party, in lieu of indemnifying such indemnified party thereunder, shall to the extent permitted by applicable law contribute to the

amount paid or payable by such indemnified party as a result of such loss, claim, damage or liability in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the Violation(s) or Holder Violation(s) that resulted in such loss, claim, damage or liability, as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by a court of law by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such statement or omission; *provided however*, *that* in any such case (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and *provided*, *further* that in no event shall a Holder's liability pursuant to this Section 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Section 2.8(d), exceed the net proceeds from the offering received by such Holder.

(e) The obligations of the Company and the Holders under this Section 2.8 shall survive completion of any offering of Registrable Securities in a registration statement and, with respect to liability arising from an offering to which this Section 2.8 would apply that is covered by a registration filed before termination of this Agreement, such termination. No indemnifying party, in the defense of any such claim or litigation, shall, except with the consent of each indemnified party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such indemnified Party of a release from all liability in respect to such claim or litigation.

2.9 Assignment of Registration Rights. The rights to cause the Company to register Registrable Securities pursuant to this Section 2 may be assigned by a Holder to a transferee or assignee of Registrable Securities (for so long as such shares remain Registrable Securities) that is an Affiliate, (b) is a Holder's family member or trust for the benefit of an individual Holder, or (c) is a Major Investor; *provided, however,* that (i) the transferor shall, within 10 days after such transfer, furnish to the Company written notice of the name and address of such transferee or assignee and the securities with respect to which such registration rights are being assigned and (ii) such transferee shall agree to be subject to all restrictions applicable to a Holder set forth in this Agreement.

2.10 Limitation on Subsequent Registration Rights. Other than as provided in Section 5.10, after the date of this Agreement, the Company shall not, without the prior written approval of the Initiating Holders (excluding, for this purpose, any Registrable Securities within clause (ii) of the definition of Registrable Securities), enter into any agreement with any holder or prospective holder of any securities of the Company that would grant such holder rights to demand the registration of shares of the Company's capital stock, or to include such shares in a registration statement that would reduce the number of shares includable by the Holders.

2.11 "**Market Stand-Off**" **Agreement.** Each Investor hereby agrees that such Investor shall not sell, transfer, make any short sale of, grant any option for the purchase of, or enter into

any hedging or similar transaction with the same economic effect as a sale of, any Common Stock (or other securities) of the Company held by such Investor immediately before the effective date of the registration statement for the Initial Offering (other than those included in the registration) during the 180-day period following the effective date of the Initial Offering; *provided*, that, all officers and directors of the Company are subject to the same restrictions and the Company obtains a similar agreement from all stockholders individually owning one percent or more (1%) of the Company's outstanding Common Stock (after giving effect to conversion into Common Stock of all outstanding Preferred Stock). The foregoing provisions of this Section 2.11 shall apply only to the Initial Offering, shall not apply to (a) the sale of any shares to an underwriter pursuant to an underwriting agreement, (b) transfer of any shares owned by a Holder in the Company to its Affiliates or any of the Holder's stockholders, members, partners or other equity holders; *provided* that the Affiliate, stockholder member, partner or other equity holder of the Holder agrees to be bound in writing by the restrictions set forth herein; (c) the transfer of any shares to any trust for the direct or indirect benefit of the Holder or the immediate family of the Holder, *provided* that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and *provided further* that any such transfer shall not involve a disposition for value; or (d) any shares or other securities acquired in the Initial Offering or in open market transactions following the Initial Offering. The obligations described in this Section 2.11 shall not apply to Special Registration Statements. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply to all Holders subject to such agreements *pro rata* based on the number of shares subject to such agreements.

2.12 Agreement to Furnish Information. Each Investor agrees to execute and deliver such other agreements as may be reasonably requested by the Company or the underwriter that are consistent with the Investor's obligations under Section 2.11 or that are necessary to give further effect thereto. In addition, if requested by the Company or the representative of the underwriters of Common Stock of the Company (or other securities of the Company), each Investor shall provide, within ten (10) days of such request, such information as may be reasonably required by the Company or such representative in connection with the completion of any public offering of the Company's securities pursuant to a registration statement filed under the Securities Act. The obligations described in this Section 2.12 shall not apply to Special Registration Statements. The Company may impose stop-transfer instructions with respect to the shares of Common Stock (or other securities) subject to the foregoing restriction until the end of said day period. Each Investor agrees that any transferee of any Shares shall be bound by Sections 2.11 and 2.12.

2.13 Rule 144 Reporting. With a view to making available to the Holders the benefits of certain rules and regulations of the SEC which may permit the sale of the Registrable Securities to the public without registration, the Company agrees to use its best efforts to:

(a) Make and keep public information available, as those terms are understood and defined in SEC Rule 144 or any similar or analogous rule promulgated under the Securities Act, at all times after the effective date of the first registration statement filed by the Company for an offering of its securities to the general public;

(b) File with the SEC, in a timely manner, all reports and other documents required of the Company under the Exchange Act; and

(c) So long as a Holder owns any Registrable Securities, furnish to such Holder forthwith upon request: a written statement by the Company as to its compliance with the reporting requirements of said Rule 144 of the Securities Act, and of the Exchange Act (at any time after it has become subject to such reporting requirements); a copy of the most recent annual or quarterly report of the Company filed with the Commission; and such other reports and documents as a Holder may reasonably request in connection with availing itself of any rule or regulation of the SEC allowing it to sell any such securities without registration.

2.14 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Sections 2.2, 2.3, or 2.4 hereof shall terminate upon the earlier of: (i) the date three (3) years following an initial public offering that results in the conversion into Common Stock of all outstanding shares of Preferred Stock; (ii) with respect to a Holder such time as the Company has completed its Initial Offering and all Registrable Securities of the Company issuable or issued upon conversion of the Shares held by and issuable to such Holder (and its Affiliates) may be sold pursuant to Rule 144 during any ninety (90) day period, or (iii) upon an "***Acquisition***" or "***Asset Transfer***" as defined in the Restated Certificate. Upon such termination, such shares shall cease to be "Registrable Securities" hereunder for all purposes.

SECTION 3. COVENANTS OF THE COMPANY.

3.1 Basic Financial Information and Reporting.

(a) The Company will maintain true and complete books and records of account in which full and correct entries will be made of all its business transactions pursuant to a system of accounting established and administered in accordance with U.S. generally accepted accounting principles consistently applied (except as noted therein), and will set aside on its books all such proper accruals and reserves as shall be required under U.S. generally accepted accounting principles consistently applied. If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to Sections 3.1(b) and (c) below shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

(b) As soon as practicable and in any event within one hundred twenty (120) days after the end of each fiscal year of the Company, the Company will furnish to each Major Investor (*provided* that the Board has not reasonably determined that such Major Investor is a Competitor), an audited balance sheet of the Company, as at the end of such fiscal year, and an audited statement of income and an audited statement of cash flows of the Company for such year, all prepared in accordance with U.S. generally accepted accounting principles consistently applied (except as noted therein), certified by independent public accountants of nationally recognized standing selected by the Board (or a committee thereof) and setting forth in each case in comparative form the figures for the previous fiscal year, all in reasonable detail.

(c) The Company will furnish to each Major Investor (*provided* that the Board has not reasonably determined that such Major Investor is a Competitor), as soon as practicable after the end of each month, and in any event within thirty (30) days thereafter, an unaudited balance sheet of the Company as of the end of each month, and an unaudited statement of income

and an unaudited statement of cash flows of the Company for such period and for the current fiscal year to date, if available, including a comparison to plan figures for such period, prepared in accordance with U.S. generally accepted accounting principles consistently applied (except as noted therein), with the exception that no notes need be attached to such statements and year-end audit adjustments may not have been made.

(d) The Company will furnish to each Major Investor (*provided* that the Board has not reasonably determined that such Major Investor is a Competitor), an annual budget and operating plans for the next fiscal year (and as soon as available, any subsequent material revisions thereto) as soon as practicable but in any event within thirty (30) days before the end of each fiscal year.

(e) The Company will furnish the latest updated capitalization table of the Company (i) to each Major Investor within five (5) business days of any change thereto (other than (a) grants of options to employees and consultants to purchase Common Stock, (b) repurchases at cost from former employees and consultants of the Company in connection with the cessation of their service to the Company or (c) any transfers by any stockholder to an Affiliate for no consideration or for estate planning purposes), and (ii) to any Major Investor within five (5) business days of request by such Major Investor.

3.2 Inspection Rights. Each Major Investor (*provided* that the Board has not reasonably determined that such Major Investor is a Competitor) and its attorneys, accountants and other representatives shall have the right to visit and inspect any of the properties of the Company or any of its subsidiaries, examine its books of account and records and make copies thereof as such Major Investor may reasonably request, and to discuss the affairs, finances and accounts of the Company or any of its subsidiaries with its officers, accountants and advisors, and to review such information as is reasonably requested all at such reasonable times and as often as may be reasonably requested; *provided, however,* that the Company shall not be obligated under this Section 3.2 (a) with respect to any person or entity that the Board determines in good faith is a Competitor of the Company or (b) with respect to information which the Board determines in good faith is a trade secret or attorney-client privileged and should not, therefore, be disclosed.

3.3 Confidentiality of Records. Each Investor agrees to use the same degree of care as such Investor uses to protect its own confidential information to keep confidential any information furnished to such Investor that the Company identifies as being confidential or proprietary unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Section 3.3 by such Investor), (b) is or has been independently developed or conceived by the Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to the Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company and that is known by such Investor, except that such Investor may disclose such proprietary or confidential information (i) to any existing or prospective Affiliate or partner, member, stockholder, subsidiary or parent of such Investor or Affiliate as long as such partner, subsidiary or parent is advised of and agrees or has agreed to be bound by the confidentiality provisions of this Section 3.3 or comparable restrictions; (ii) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; (iii) to any prospective purchaser of any Registrable Securities from such Investor, if

such prospective purchaser agrees to be bound by the provisions of this Section 3.3; (iv) to the extent required in connection with any routine or periodic examination or similar process by any regulatory or self-regulatory body or authority not specifically directed at the Company or the confidential information obtained from the Company pursuant to the terms of this Agreement, including, without limitation, quarterly or annual reports, or (v) as required by applicable law, rule, regulation, proceeding, court order, or request of any governmental or regulatory agency. Notwithstanding the foregoing, the Funds (as defined in Section 3.15) shall not be restricted or prohibited from evaluating and participating in other investment opportunities on the basis of having access to confidential information of the Company. Furthermore, The Company understands and acknowledges that in the regular course of the Funds' business, the Funds will invest in companies that have issued securities that are publicly traded (each, a "***Public Company***"). Accordingly, the Company covenants and agrees that it shall not provide any material non-public information about a Public Company to the Fund.

3.4 Reservation of Common Stock. The Company will at all times reserve and keep available, solely for issuance and delivery upon the conversion of the Preferred Stock, all Common Stock issuable from time to time upon such conversion.

3.5 Stock Vesting. Unless otherwise approved by the Board, all stock options and other stock equivalents issued by the Company after the date of this Agreement to employees, directors, consultants and other service providers shall be subject to vesting as follows: (a) twenty-five percent (25%) of such stock shall vest at the end of the first year following either the date of issuance or such person's services commencement date with the Company, and (b) seventy-five percent (75%) of such stock shall vest monthly over the remaining three (3) years. If employees are permitted to early exercise unvested options or are granted restricted stock awards, unless otherwise approved by the Board, the repurchase option shall provide that upon termination of the employment of the stockholder, with or without cause, the Company or its assignee (to the extent permissible under any applicable securities law qualification) shall retain the option to repurchase at cost (or the lesser of cost or fair market value) any unvested shares held by such stockholder.

3.6 Proprietary Information and Inventions Agreement. The Company shall require all current and former employees and consultants to execute and deliver a Proprietary Information and Inventions Agreement substantially in a form approved by the Company's legal counsel or Board. In addition, the Company shall not amend, modify, terminate, waive, or otherwise alter, in whole or in part, any of the above-referenced agreements without the approval of the Board (including the affirmative vote of at least three (3) of the Preferred Directors (the "***Preferred Board Approval***").

3.7 Directors' Liability and Indemnification. The Restated Certificate and Amended and Restated Bylaws, as may be amended from time to time, shall provide (a) for elimination of the liability of directors to the maximum extent permitted by law and (b) for indemnification of directors for acts on behalf of the Company to the maximum extent permitted by law.

3.8 Successor Indemnification. If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the

obligations of the Company with respect to indemnification of members of the Board as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, its Certificate of Incorporation, or elsewhere, as the case may be.

3.9 Board Matters; Reimbursement of Expenses. Unless otherwise determined by the vote of a majority of the directors then in office, the Board shall meet at least quarterly in accordance with an agreed-upon schedule. The Company will promptly reimburse all reasonable documented costs and expenses incurred by non-employee members of the Board, the Hadean Observer (as defined in Section 3.10(c)) and the Sectoral Observer (as defined in Section 3.10(b), and the Company's obligation to reimburse the costs and expenses of the Sectoral Observer shall only apply if and when Sectoral does not have a Series B Preferred Director who is entitled to reimbursement of such director's costs and expenses under this Section 3.9) in attending Board meetings, attending any Board committee meetings, and performing the Company's business at the request of the Company consistent with the Company's reasonable travel policy in effect from time to time; *provided* that the Company shall have delivered a copy of such travel policy (including any revisions thereto) in writing to each non-employee member of the Board, the Hadean Observer (as defined below) and the Sectoral Observer (as defined below).

3.10 Observer Rights.

(a) As long as Versant Venture Capital VI, L.P., a Delaware limited partnership (or its Affiliates) (collectively, "***Versant***") owns at least 500,000 shares (appropriately adjusted for any stock split, dividend, combination or other recapitalization) of Preferred Stock (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Versant to attend all non-executive session meetings of its Board in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents and other materials that it provides to its directors at the same time and in the same manner as its directors in connection therewith; *provided*, *however*, that such representative shall agree to hold in confidence and trust and to act in a fiduciary manner with respect to all information so provided; and, *provided*, *further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney client privilege between the Company and its counsel or would result in disclosure of trade secrets to such representative or if such Investor or its representative is or is affiliated with a Competitor of the Company. Any observer shall be required to enter into a confidentiality agreement containing substantially similar terms as those set forth in Section 3.3 of this Agreement with the Company prior to the exercise of the rights contained in this Section 3.10(a).

(b) As long as New Emerging Medical Opportunities IV SCSp, a Luxembourg special limited partnership (or its Affiliates) (collectively, "***Sectoral***") owns at least 500,000 shares (appropriately adjusted for any stock split, dividend, combination or other recapitalization) of Preferred Stock (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Sectoral (the "***Sectoral Observer***") to attend all non-executive session meetings of its Board in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents and other materials that it provides to its directors at the same time and in the same manner as its directors in connection therewith; *provided*, *however*, that such representative shall agree to hold in confidence and trust and to act

in a fiduciary manner with respect to all information so provided; and, *provided*, *further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney client privilege between the Company and its counsel or would result in disclosure of trade secrets to such representative or if such Investor or its representative is or is affiliated with a Competitor of the Company. Any observer shall be required to enter into a confidentiality agreement containing substantially similar terms as those set forth in Section 3.3 of this Agreement with the Company prior to the exercise of the rights contained in this Section 3.10(b).

(c) As long as Hadean Capital I AS and Hventures Capital I AB (and any of their Affiliates) (collectively, "***Hadean***") together own in aggregate at least 500,000 shares (appropriately adjusted for any stock split, dividend, combination or other recapitalization) of Preferred Stock (or an equivalent amount of Common Stock issued upon conversion thereof), the Company shall invite a representative of Hadean (the "***Hadean Observer***") to attend all non-executive session meetings of its Board in a nonvoting observer capacity and, in this respect, shall give such representative copies of all notices, minutes, consents and other materials that it provides to its directors at the same time and in the same manner as its directors in connection therewith; *provided*, *however*, that such representative shall agree to hold in confidence and trust and to act in a fiduciary manner with respect to all information so provided; and, *provided*, *further*, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney client privilege between the Company and its counsel or would result in disclosure of trade secrets to such representative or if such Investor or its representative is or is affiliated with a Competitor of the Company. Any observer shall be required to enter into a confidentiality agreement containing substantially similar terms as those set forth in Section 3.3 of this Agreement with the Company prior to the exercise of the rights contained in this Section 3.10(c).

3.11 Board Approvals. So long as any shares of Preferred Stock remain outstanding, the Company shall not without (in addition to any other vote required by law or the Restated Certificate) first obtaining the approval by vote or written consent, as provided by law, of Preferred Board Approval:

(a) make any loan or advance to, or own any stock or other securities of, any subsidiary or other corporation, partnership, or other entity unless it is wholly owned by the Company;

(b) make any loan or advance to any person, including, any employee or director, except advances and similar expenditures in the ordinary course of business or under the terms of an employee stock or option plan approved by the Board;

(c) guarantee any indebtedness except for trade accounts of the Company or any subsidiary arising in the ordinary course of business;

(d) implement or change a cash investment policy of the Company;

(e) incur any aggregate indebtedness or make any aggregate expenditures in excess of $150,000 in any calendar year that is not already included in budget approved by the Board, other than trade credit;

(f) hire or fire any of the executive officers, or approve, authorize or change the compensation, equity incentive or severance arrangements of the executive officers, including approving (i) any option or equity plans or any material amendments thereto or (ii) any awards to executive officers pursuant thereto;

(g) change the principal business of the Company, enter new lines of business, or exit any current line of business;

(h) sell, transfer, license, pledge or encumber technology or intellectual property of the Company, other than licenses granted in the ordinary course of business;

(i) enter into any corporate strategic relationship, joint venture, partnership or licensing arrangement involving the payment, contribution, license or assignment by the Company or to the Company of assets greater than $200,000;

(j) adopt or amend the annual budget of the Company; or

(k) enter into any related party transaction with (i) any of the Company's then-serving officers or directors or (ii) any employee of the Company other than standard employment agreements or Proprietary Information and Inventions Agreements entered into in the ordinary course of business and previously approved by the Board.

For purposes of clarity, the Company's license of its intellectual property pursuant to the terms of the side letter agreement, dated November 26, 2019, with RusBio Ventures LLC, acting as the General Partner of RBV LP in the name and on behalf of all parties to the Investment Partnership Agreement (IPA) of RBV LP, dated October 10, 2014, as in effect on the date hereof (the "***RBV Agreement***"), shall not require a separate vote of the Preferred Board Approval pursuant to this Section 3.11.

3.12 Insurance. The Company shall obtain, within ninety (90) days of the date hereof, from financially sound and reputable insurers Directors and Officers liability insurance of at least $2,000,000.00 on terms and conditions satisfactory to the Board, and will use commercially reasonable efforts to cause such insurance policy to be maintained until such time as the Board (including the affirmative vote of at least one (1) of the Series A Preferred Directors and the affirmative vote of at least one (1) of the Series B Preferred Directors (as defined in the Restated Certificate)) determines that such insurance should be discontinued.

3.13 CFIUS. To the extent that the Company engages in the design, fabrication, development, testing, production or manufacture of critical technologies within the meaning of the 31 C.F.R. Part 800, whether because of a new categorization of technology by the U.S. government or otherwise, the Company shall promptly provide notice to each holder of the Company's Preferred Stock and/or Common Stock.

3.14 Indemnification Matters. The Company hereby acknowledges that one (1) or more of the directors nominated to serve on the Board by the Investors (each a "***Fund Director***") may have certain rights to indemnification, advancement of expenses and/or insurance provided by one or more of the Investors and certain of their Affiliates (collectively, the "***Fund Indemnitors***"). The Company hereby agrees (a) that it is the indemnitor of first resort (i.e., its obligations to any such Fund Director are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by such Fund Director are secondary), (b) that it shall be required to advance the full amount of expenses incurred by such Fund Director and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement by or on behalf of any such Fund Director to the extent legally permitted and as required by the Company's Certificate of Incorporation or Bylaws of the Company (or any agreement between the Company and such Fund Director), without regard to any rights such Fund Director may have against the Fund Indemnitors, and, (c) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of any such Fund Director with respect to any claim for which such Fund Director has sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of such Fund Director against the Company.

3.15 Right to Conduct Activities. The Company hereby agrees and acknowledges that the Investors (together with their Affiliates, are sometimes collectively referred to herein as the "***Funds***") are professional investment funds that from time to time (a) make or hold investments in, or trade in public securities of companies that are or may become engaged in activities that are competitive with the Company's business, as it is currently conducted or as it may be conducted in the future and (b) engage in other activities which may be deemed competitive with the Company's business as it is currently conducted or as it may be conducted in the future. The Company hereby agrees that, to the extent permitted under applicable law, no Fund shall be liable to the Company for any claim arising out of, or based upon, (i) the investment by such Fund in any entity competitive with the Company, or (ii) actions taken by any partner, officer, employee or other representative of such Fund to assist any such competitive company, whether or not such action was taken as a member of the board of directors of such competitive company or otherwise, and whether or not such action has a detrimental effect on the Company; provided, however, that the foregoing shall not relieve (x) any of the Investors from liability associated with the unauthorized disclosure of the Company's confidential information obtained pursuant to this Agreement, or (y) any director or officer of the Company from any liability associated with his or her fiduciary duties to the Company. Subject to clauses (x) and (y) above, nothing in this Agreement shall preclude, create an obligation or duty, or in any way restrict the Funds from evaluating or purchasing securities, including publicly traded securities, of a particular enterprise, whether or not such enterprise has products or services which compete with those of the Company.

3.16 Termination of Covenants. Unless otherwise specified, all covenants of the Company contained in Section 3 of this Agreement (other than the provisions of Sections 3.3, 3.7, 3.8, 3.14, and 3.15) shall expire and terminate as to each Investor upon the earliest of (i) the effective date of the registration statement pertaining to an initial public offering that results in the

conversion into Common Stock of all outstanding shares of Preferred Stock, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder, and (iii) upon an "***Acquisition***" or "***Asset Transfer***" as defined in the Restated Certificate.

SECTION 4. RIGHTS OF FIRST REFUSAL.

4.1 Subsequent Offerings. Subject to applicable securities laws, each Major Investor shall have a right of first refusal to purchase its *pro rata* share of all Equity Securities, as defined below, that the Company may, from time to time, propose to sell and issue after the date of this Agreement, other than the Equity Securities excluded by Section 4.6 hereof. Each Investor's *pro rata* share is equal to the ratio of (a) the number of shares of the Common Stock (including all shares of Common Stock issuable or issued upon conversion of the Shares or upon the exercise of outstanding warrants or options of which such Major Investor is deemed to be a holder immediately prior to the issuance of such Equity Securities to (b) the total number of shares of the Common Stock (including all shares of Common Stock issued or issuable upon conversion of the Shares or upon the exercise of any outstanding warrants or options) outstanding immediately prior to the issuance of the Equity Securities. The term "***Equity Securities***" shall mean (i) any Common Stock, Preferred Stock or other equity security of the Company, (ii) any equity security of the Company convertible into or exercisable or exchangeable for, with or without consideration, any Common Stock, Preferred Stock or other equity security of the Company (including any option to purchase such a convertible security), (iii) any equity security of the Company carrying any warrant or right to subscribe to or purchase any Common Stock, Preferred Stock or other equity security of the Company, (iv) any such warrant or right or (v) any debt securities that may be convertible into equity securities of the Company.

4.2 Exercise of Rights. If the Company proposes to issue any Equity Securities, it shall give each Major Investor written notice of its intention, describing the Equity Securities, the price and the terms and conditions upon which the Company proposes to issue the same (the "***Offer***"). Each Major Investor shall have fifteen (15) days from the giving of such notice to agree to purchase its applicable *pro rata* share of such Equity Securities as determined pursuant to Section 4.1 for the price and upon the terms and conditions specified in the Offer by giving written notice to the Company (the "***Notice of Acceptance***") and stating therein the quantity of Equity Securities to be purchased. Notwithstanding anything to the contrary in this Section 4.2, the Company shall not be required to offer or sell such Equity Securities to any Major Investor who would cause the Company to be in violation of applicable federal securities laws by virtue of such offer or sale.

4.3 Issuance of Equity Securities to Other Persons. At the expiration of such fifteen (15) day period referenced in Section 4.2, if not all of the Major Investors elect to purchase their *pro rata* share of Equity Securities as determined pursuant to Section 4.1, then the Company shall promptly notify in writing the Major Investors who do so elect and shall offer such Major Investors the right to acquire such unsubscribed shares on a *pro rata* basis. Each Major Investor that is so notified shall have five (5) days after receipt of such notice to notify the Company of its election to purchase all or a portion of the unsubscribed shares. If all of the Equity Securities referred to in the Offer are not elected to be purchased or acquired as provided in Sections 4.1, 4.2, or this

Section 4.3, the Company shall have ninety (90) days thereafter to sell the unsubscribed portion of such Equity Securities in respect of which the Major Investor's rights were not exercised, at a price not lower and upon general terms and conditions not materially more favorable to the purchasers thereof or materially less favorable to the Company than specified in the Company's notice to the Major Investors pursuant to Section 4.2 hereof. If the Company has not sold such Equity Securities within ninety (90) days of the notice provided pursuant to Section 4.2, the Company shall not thereafter issue or sell any Equity Securities, without first offering such securities to the Major Investors in the manner provided above.

4.4 Termination and Waiver of Rights of First Refusal. The rights of first refusal established by this Section 4 shall not apply to, and shall terminate upon the earlier of (i) the effective date of the registration statement pertaining to an Initial Offering that results in the Preferred Stock being converted into Common Stock or (ii) an Acquisition. Notwithstanding Section 5.5 hereof, the rights of first refusal established by this Section 4 may be amended, or any provision waived with respect to all Major Investors holding Registrable Securities with and only with the written consent of (A) the Company and (B) Major Investors holding at least sixty percent (60%) of the Registrable Securities held by all Major Investors (excluding, for this purpose, any Registrable Securities within clause (ii) of the definition of Registrable Securities) (the "***Requisite Major Investor Majority***"), or as permitted by Section 5.5; *provided*, *however*, that if, after giving effect to any such waiver of Section 4 with respect to a particular transaction, a Major Investor (a "***Purchasing Investor***") purchases securities in such transaction or issuance, such waiver of the provisions of Section 4 shall be deemed to apply to each other Major Investor whose rights were waived or amended without the affirmative vote of such Major Investor (each such Major Investor, a "***Non-Waiving Investor***") only if such Non-Waiving Investor has been provided the opportunity to purchase a pro rata share of the Equity Securities being offered by the Company in such transaction equivalent to the largest pro rata share of such Equity Securities purchased by any Purchasing Investor; provided, further, such Non-Waiving Investor must confirm its election to purchase the Equity Securities within fifteen (15) days of receiving written notice of such opportunity from the Company).

4.5 Assignment of Rights of First Refusal. The rights of first refusal of each Major Investor under this Section 4 may be assigned to the same parties, subject to the same restrictions as any transfer of registration rights pursuant to Section 2.9.

4.6 Excluded Securities. The rights of first refusal established by this Section 4 shall not be applicable to the issuance or deemed issuance of shares excluded from the definition of "***Additional Shares of Common Stock***" (as defined in the Restated Certificate) in the Restated Certificate. In addition to the foregoing, the right of first offer in this Section 4 shall not be applicable with respect to any Major Investor in any subsequent offering of shares if (i) at the time of such offering, the Major Investor is not an "accredited investor," as that term is then defined in Rule 501(a) of the Act and (ii) such offering of shares is otherwise being offered only to accredited investors.

SECTION 5. MISCELLANEOUS.

5.1 Governing Law. This Agreement shall be governed by and construed under the laws of the State of Delaware, without reference to conflicts of laws or principles thereof. The

parties agree that any action brought by either party under or in relation to this Agreement, including without limitation to interpret or enforce any provision of this Agreement, shall be brought in, and each party agrees to and does hereby submit to the jurisdiction and venue of, any state or federal court located in the State of Delaware.

5.2 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate of a Holder; (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (iii) after such transfer, holds at least 250,000 shares of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations); provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement. Except as otherwise expressly provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the parties hereto and their respective successors, assigns, heirs, executors, and administrators and shall inure to the benefit of and be enforceable by each person who shall be a holder of Registrable Securities from time to time; *provided, however*, that prior to the receipt by the Company of adequate written notice of the transfer of any Registrable Securities specifying the full name and address of the transferee, the Company may deem and treat the person listed as the holder of such shares in its records as the absolute owner and holder of such shares for all purposes, including the payment of dividends or any redemption price.

5.3 Entire Agreement. This Agreement, the Exhibits and Schedules hereto, constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof and no party shall be liable or bound to any other in any manner by any oral or written representations, warranties, covenants and agreements except as specifically set forth herein and therein. Each party expressly represents and warrants that it is not relying on any oral or written representations, warranties, covenants or agreements outside of this Agreement and its Exhibits. Except as specifically provided herein, there are no intended third party beneficiaries to this Agreement other than the parties listed on the signature pages hereto.

5.4 Severability. In the event one or more of the provisions of this Agreement should, for any reason, be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provisions of this Agreement, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had (to the extent not enforceable) never been contained herein; *provided* that the parties hereto shall use their good faith reasonable efforts to agree to and execute alternate means to achieve the same or substantially the same economic or other result as that contemplated by such provision.

5.5 Amendment and Waiver.

(a) Except as otherwise expressly provided, this Agreement may be amended, terminated or modified, and the obligations of the Company and the rights of the Holders under this Agreement may be waived, only upon the written consent of the (i) Company and (ii) the Initiating Holders; *provided* that any amendment or waiver of the second sentence of Section 4.4

shall require the prior written consent of the Requisite Major Investor Majority, except as otherwise specified therein; and *provided*, *further* that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, (I) this Agreement may not be amended, modified or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, modification, termination, or waiver applies to all Investors in the same fashion (except as provided in Section 4.4), (II) any section of this Agreement applicable to the Major Investors (including this clause (II) of Section 5.5) may not be amended, modified, terminated or waived without the written consent of the Requisite Major Investor Majority, (III) the rights of Sectoral under Sections 3.9, 3.10(b), 3.13, 3.15 and this clause (III) of this Section 5.5 may not be amended, modified, terminated or waived without the written consent of Sectoral, (IV) Section 3.11 may not be amended or modified to require a Preferred Board Approval for the Company's license of its intellectual property pursuant to the terms of the RBV Agreement without the written consent of RBV, (V) the rights of Versant under Sections 3.9 and 3.10(a) and this clause (V) of this Section 5.5 may not be amended, modified, terminated or waived without the written consent of Versant, (VI) the rights of Hadean under Sections 3.9, 3.10(c), 3.13, 3.15 and this clause (VI) of this Section 5.5 may not be amended, modified, terminated or waived without the written consent of Hadean, and (VII) the rights of Baker Brothers Advisors, LP and its Affiliates ("***Baker Bros.***") under Sections 3.9, 3.13, 3.15 and this clause (VII) of this Section 5.5 may not be amended, modified, terminated or waived without the written consent of Baker Bros. The Company shall give prompt notice of any amendment, modification or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, modification, termination, or waiver.

(b) For the purposes of determining the number of Holders or Investors entitled to vote or exercise any rights hereunder, the Company shall be entitled to rely solely on the list of record holders of its stock as maintained by or on behalf of the Company.

5.6 Delays or Omissions. It is agreed that no delay or omission to exercise any right, power, or remedy accruing to any party, upon any breach, default or noncompliance by another party under this Agreement shall impair any such right, power, or remedy, nor shall it be construed to be a waiver of any such breach, default or noncompliance, or any acquiescence therein, or of any similar breach, default or noncompliance thereafter occurring. It is further agreed that any waiver, permit, consent, or approval of any kind or character on any party's part of any breach, default or noncompliance under the Agreement or any waiver on such party's part of any provisions or conditions of this Agreement must be in writing and shall be effective only to the extent specifically set forth in such writing. All remedies, either under this Agreement, by law, or otherwise afforded to any party, shall be cumulative and not alternative.

5.7 Notices. All notices required or permitted hereunder shall be in writing and shall be deemed effectively given: (a) upon personal delivery to the party to be notified, (b) when sent by confirmed electronic mail or facsimile if sent during normal business hours of the recipient; if not, then on the next business day, (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid, or (d) one (1) day after deposit with a nationally recognized overnight courier, specifying next day delivery, with written verification of receipt. All communications shall be sent to the party to be notified at the address or electronic mail address as set forth on the signature pages hereof or **Exhibit A** hereto or at such other address or electronic

mail address as such party may designate by ten (10) days advance written notice to the other parties hereto.

5.8 Attorneys' Fees. In the event that any suit or action is instituted under or in relation to this Agreement, including without limitation to enforce any provision in this Agreement, the prevailing party in such dispute shall be entitled to recover from the losing party all fees, costs and expenses of enforcing any right of such prevailing party under or with respect to this Agreement, including without limitation, such reasonable fees and expenses of attorneys and accountants, which shall include, without limitation, all fees, costs and expenses of appeals.

5.9 Titles and Subtitles. The titles of the sections and subsections of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

5.10 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company shall issue additional shares of its Preferred Stock, any purchaser of such shares of Preferred Stock shall become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and shall be deemed an "***Investor***," a "***Holder***" and a party hereunder and no action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor.

5.11 Counterparts; Facsimile. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument. Facsimile or other electronic signatures shall be as effective as original signatures.

5.12 Aggregation of Stock. All shares of Registrable Securities held or acquired by affiliated entities or persons or persons or entities under common management or control shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

5.13 Pronouns. All pronouns contained herein, and any variations thereof, shall be deemed to refer to the masculine, feminine or neutral, singular or plural, as to the identity of the parties hereto may require.

5.14 Amendment and Restatement of Prior Agreement. The Prior Agreement is hereby amended and restated in its entirety and superseded by this Agreement. Upon such execution, all provisions of, rights granted and covenants made in the Prior Agreement are hereby waived, released and superseded in their entirety by the provisions hereof and shall have no further force or effect, including, without limitation, all rights of first refusal and any notice period associated therewith otherwise applicable to the transactions contemplated by the Purchase Agreement.

5.15 Waiver of Conflicts. Each party to this Agreement acknowledges that Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP ("***Gunderson***"), counsel for the Company, has in the past performed and may continue to perform legal services for certain of the Investors in matters unrelated to the transactions described in this Agreement, including the representation of such Investors in venture capital financings and other matters. Accordingly, each party to this Agreement (a) acknowledges that they have had an opportunity to ask for information relevant to this disclosure and (b) gives its informed consent to Gunderson's representation of certain of the

Investors in such unrelated matters and to Gunderson's representation of the Company in connection with this Agreement and the transactions contemplated by this Agreement.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

COMPANY:

PIPELINE THERAPEUTICS, INC.

By: /s/ Carmine Stengone
Name: Carmine Stengone
Title: Chief Executive Officer

Address:

INVESTORS:

VERSANT VENTURE CAPITAL VI, L.P.

BY: VERSANT VENTURES VI GP, L.P.
ITS: GENERAL PARTNER

BY: VERSANT VENTURES VI GP-GP, LLC
ITS: GENERAL PARTNER

By: /s/ Clare Ozawa
Name: Clare Ozawa
Title: Managing Director

VERSANT VENTURE CAPITAL IV, L.P.

BY: VERSANT VENTURES IV, LLC
ITS: GENERAL PARTNER

By: /s/ Bradley Bolzon
Name: Bradley J. Bolzon
Title: Managing Director

VERSANT SIDE FUND IV, L.P.

BY: VERSANT VENTURES IV, LLC
ITS: GENERAL PARTNER

By: /s/ Bradley Bolzon
Name: Bradley J. Bolzon
Title: Managing Director

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

VERSANT VANTAGE I, L.P.

BY: VERSANT VANTAGE I GP, L.P.
BY: VERSANT VANTAGE I GP-GP, LLC
ITS: GENERAL PARTNER

By: /s/ Clare Ozawa
Name: Clare Ozawa
Title: Managing Director

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

667, L.P.

BY: BAKER BROS. ADVISORS LP, management company and investment adviser to **667, L.P.**, pursuant to authority granted to it by Baker Biotech Capital, L.P., general partner to 667, L.P., and not as the general partner.

By: /s/ Scott Lessing
Name: Scott Lessing
Title: President

BAKER BROTHERS LIFE SCIENCES, L.P.

By: BAKER BROS. ADVISORS LP, management company and investment adviser to **Baker Brothers Life Sciences, L.P.**, pursuant to authority granted to it by Baker Brothers Life Sciences Capital, L.P., general partner to Baker Brothers Life Sciences, L.P., and not as the general partner.

By: /s/ Scott Lessing
Name: Scott Lessing
Title: President

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

SRLN HOLDINGS LIMITED

By: /s/ Colm O'Connell
Name: Colm O'Connell
Title: Authorized Signatory

[AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT SIGNATURE PAGE]

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

PERCEPTIVE LIFE SCIENCES MASTER FUND LTD.

By: /s/ James H. Mannix
Name: James H. Mannix
Title: Chief Operating Officer

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

CASDIN PRIVATE GROWTH EQUITY FUND, L.P.
By: Casdin Private Growth Equity Fund GP, LLC, its General Partner

By: /s/ Kevin O'Brien
Name: Kevin O'Brien
Title: General Counsel

CASDIN PARTNERS MASTER FUND, L.P.
By: Casdin Partners GP, LLC, its General Partner

By: /s/ Kevin O'Brien
Name: Kevin O'Brien
Title: General Counsel

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

FRANKLIN TEMPLETON INVESTMENT FUNDS – FRANKLIN BIOTECHNOLOGY DISCOVERY FUND

By: Franklin Advisers, Inc.

By: /s/ Evan McCulloch
Name: Evan McCulloch
Title: Vice President

FRANKLIN STRATEGIC SERIES – FRANKLIN BIOTECHNOLOGY FUND

By: Franklin Advisers, Inc.

By: /s/ Evan McCulloch
Name: Evan McCulloch
Title: Vice President

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

SAMSARA BIOCAPITAL, L.P.

By: Samsara BioCapital GP, LLC, General Partner

By: /s/ Srinivas Akkaraju
Name: Srinivas Akkaraju, MD, PhD
Title: Managing Member

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

AVERILL MASTER FUND, LTD.

By: /s/ Glenn Shepard
Name: Glenn Shepard
Title: Authorized Signatory

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

RED TREE VENTURE FUND, L.P.

By: Red Tree GP, LLC
Its: General Partner

By: /s/ Heath Lukatch
Name: Heath Lukatch, Ph.D.
Title: Managing Director

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

DRIEHAUS LIFE SCIENCES MASTER FUND, L.P.

By: Driehaus Capital Management LLC, its investment advisor

By: /s/ Janet McWilliams
Name: Janet McWilliams
Title: General Counsel

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

GRAYS CREEK CAPITAL PARTNERS FUND I, LP

By: /s/ Jason R. Little
Name: Jason R. Little
Title: Managing Partner

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

DITCH PLAINS PRIVATE INVESTMENTS LP

By: /s/ Mark A. Varrichio, Jr.
Name: Mark A. Varrichio, Jr.
Title: General Partner

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

SIXTY DEGREE CAPITAL FUND II, L.P.
By: Sixty Degree Capital Fund II GP Inc.
Its: General Partner

By: /s/ Jian Guo
Name: Jian Guo
Title: President

By: /s/ Feng Zu
Name: Feng Zu
Title: Secretary

SIXTY DEGREE CAPITAL FUND II-A, L.P.
By: Sixty Degree Capital Fund II GP Inc.
Its: General Partner

By: /s/ Jian Guo
Name: Jian Guo
Title: President

By: /s/ Feng Zu
Name: Feng Zu
Title: Secretary

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

MFINE LIMITED

By: /s/ Stephen Thacher
Name: Stephen Thacher
Title: Director

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

NEW EMERGING MEDICAL OPPORTUNITIES IV SCSP

By: /s/ Michael Sjöström
Name: Michael Sjöström
Title: Sr. Partner

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

CLEVA PHARMA CAPITAL, LLC

By: /s/ Todd Brady
Name: Todd Brady
Title: Manager

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

RUSBIO VENTURES LLC

By: /s/ Alexey Konov
Name: Alexey Konov
Title: General Director

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

HADEAN CAPITAL I AS

By: /s/ Ingrid Teigland Akay
Name: Ingrid Teigland Akay
Title: Managing Partner

By: /s/ Walter Stockinger
Name: Walter Stockinger
Title: Managing Partner

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

HVENTURES CAPITAL I AB

By: /s/ Ingrid Teigland Akay
Name: Ingrid Teigland Akay
Title: Managing Partner

By: /s/ Walter Stockinger
Name: Walter Stockinger
Title: Managing Partner

IN WITNESS WHEREOF, the parties hereto have executed this **AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT** as of the date set forth in the first paragraph hereof.

INVESTOR:

HELICASE VENTURE FUND I, L.P.
By: Helicase Venture, LLC
Its: General Partner

By: /s/ Richard Tsai
Name: Richard Tsai
Title: Managing Partner

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN SECTIONS 6.3 AND 6.4 BELOW, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR IN FORM AND SUBSTANCE SATISFACTORY TO THE COMPANY, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: PIPELINE THERAPEUTICS, INC.
Number of Shares: 88,235
Type/Series of Stock: Series B Preferred Stock
Warrant Price: $1.70 per share
Issue Date: September 1, 2020
Expiration Date: September 1, 2030 See also Section 6.1(b).
Credit Facility: This Warrant to Purchase Stock ("**Warrant**") is issued in connection with that certain Loan and Security Agreement of even date herewith between Silicon Valley Bank and the Company (as the same may from time to time be amended, modified, supplemented or restated, the "**Loan Agreement**").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder**") is entitled to purchase the number of fully paid and non-assessable shares (the "**Shares**") of the above-stated Type/Series of Stock (the "**Class**") of the above-named company (the "**Company**") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Section 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant. Reference is made to Section 6.4 of this Warrant whereby Silicon Valley Bank shall transfer this Warrant to its parent company, SVB Financial Group.

SECTION 1. EXERCISE.

1.1 Method of Exercise. Holder may at any time and from time to time exercise this Warrant, in whole or in part, by delivering to the Company the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

X = Y(A-B)/A

where:

X = the number of Shares to be issued to the Holder;

Y = the number of Shares with respect to which this Warrant is being exercised (inclusive of the Shares surrendered to the Company in payment of the aggregate Warrant Price);

A = the fair market value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Warrant Price.

1.3 Fair Market Value. If the Company's common stock is then traded or quoted on a nationally recognized securities exchange, inter-dealer quotation system or over-the-counter market (a "**Trading Market**") and the Class is common stock, the fair market value of a Share shall be the closing price or last sale price of a share of common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company. If the Company's common stock is then traded in a Trading Market and the Class is a series of the Company's convertible preferred stock, the fair market value of a Share shall be the closing price or last sale price of a share of the Company's common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company multiplied by the number of shares of the Company's common stock into which a Share is then convertible. If the Company's common stock is not traded in a Trading Market, the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Within a reasonable time after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above, the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise and, if this Warrant has not been fully exercised and has not expired, a new warrant of like tenor representing the Shares not so acquired.

1.5 Replacement of Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form, substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation, the Company shall, within a reasonable time, execute and deliver to Holder, in lieu of this Warrant, a new warrant of like tenor and amount.

1.6 Treatment of Warrant upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition**" means any transaction or series of related transactions involving: (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the assets of the Company (ii) any merger or consolidation of the Company into or with another person or entity (other than a merger or consolidation effected exclusively to change the Company's domicile), or any other corporate reorganization, in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own less than a majority of the Company's (or the surviving or successor entity's) outstanding voting power immediately after such merger, consolidation or reorganization; or (iii) any sale or other transfer by the stockholders of the Company of shares representing at least a majority of the Company's then-total outstanding combined voting power. For the avoidance of doubt, "Acquisition" shall not include any sale and issuance by the Company of shares of its capital stock to one or more investors for cash in a transaction or series of related transactions the primary purpose of which is a bona fide equity financing of the Company where no other shareholder receives cash consideration in connection therewith.

(b) Treatment of Warrant at Acquisition. In the event of an Acquisition in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), and the fair market value of one Share as determined in accordance with Section 1.3 above would be greater than the Warrant Price in effect on such date immediately prior to such Cash/Public Acquisition, and Holder has not exercised this Warrant pursuant to Section 1.1 above as to all Shares, then this Warrant shall automatically be deemed to be exercised pursuant to Section 1.2 above (a "**Cashless Exercise**") as to all Shares effective immediately prior to and contingent upon the consummation of a Cash/Public Acquisition. In connection with such Cashless Exercise, Holder shall be deemed to have restated each of the representations and warranties in Section 4 of the Warrant as of the date thereof and the Company shall promptly notify the Holder of the number of Shares (or such other securities) issued upon exercise. In the event of a Cash/Public Acquisition where the fair market value of one Share as determined in accordance with Section 1.3 above would be less than or equal to the Warrant Price in effect immediately prior to such Cash/Public Acquisition, then this Warrant will automatically expire immediately prior to the consummation of such Cash/Public Acquisition.

(c) Upon the closing of any Acquisition other than a Cash/Public Acquisition defined above, the acquiring, surviving or successor entity shall assume the obligations of this Warrant, and this Warrant shall thereafter be exercisable for the same securities and/or other property as would have been paid for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on and as of the closing of such Acquisition, subject to further adjustment from time to time in accordance with the provisions of this Warrant.

(d) As used in this Warrant, "**Marketable Securities**" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded in a Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise or convert this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such Acquisition. Notwithstanding the foregoing provisions of this Section 1.6(d), securities held in escrow or subject to holdback to cover indemnification related claims in connection with such Acquisition shall be deemed to be Marketable Securities if they would otherwise be Marketable Securities but for the fact that they are held in escrow or subject to holdback to cover indemnification related claims.

1.7 Pay to Play. In the event that any "pay to play" terms or conditions (i.e. terms or conditions that require a holder of the Company's Preferred Stock to purchase securities in a future round of equity financing or else lose the benefit of such rights, preferences and/or privileges such as anti-dilution protection applicable to the shares of Preferred Stock issuable upon the exercise of this Warrant or have such shares of Preferred Stock automatically convert to common stock or convert to another class and series of the Company's capital stock), are triggered after the date hereof (a "Pay to Play Financing"), then in such event, this Warrant, only to the extent of Shares not previously exercised, shall automatically adjust to provide the Holder with the same securities and/or rights that the Holder would have received had the Holder participated in the Pay to Play Financing to its full pro rata share with respect to the Preferred Stock issuable upon exercise of this Warrant (e.g., if this Warrant provides for the purchase of Series B Preferred Stock, and the Company after the date hereof consummates a Pay to Play Financing in which those holders of Series B Preferred Stock who participate to their full pro rata share in such Pay to Play Financing become entitled to exchange such Series B Preferred Stock for Series C Preferred Stock and those holders of Series B Preferred Stock who do not participate to their full pro rata share will have their Series B Preferred Stock converted into Common Stock, then this Warrant would automatically adjust to provide the right to purchase Series C Preferred Stock instead of Common Stock); provided, however, that in no event shall the value of the adjusted Warrant exceed the value of the Warrant as of the date immediately prior to the Pay to Play Financing (calculated based on the multiplying the number of shares by the exercise price set forth on the first page hereof).

SECTION 2. ADJUSTMENTS TO THE SHARES AND WARRANT PRICE.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in common stock or other securities or property (other than cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations substitutions, replacements or other similar events.

2.3 Conversion of Preferred Stock. If the Class is a class and series of the Company's convertible preferred stock, in the event that all outstanding shares of the Class are converted, automatically or by action of the holders thereof, into common stock pursuant to the provisions of the Company's Certificate of Incorporation, including, without limitation, in connection with the Company's initial, underwritten public offering and sale of its common stock pursuant to an effective registration statement under the Act (the "**IPO**"), then from and after the date on which all outstanding shares of the Class have been so converted, this Warrant shall be exercisable for such number of shares of common stock into which the Shares would have been converted had the Shares been outstanding on the date of such conversion, and the Warrant Price shall equal the Warrant Price in effect as of immediately prior to such conversion divided by the number of shares of common stock into which one Share would have been converted, all subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant.

2.4 Adjustments for Diluting Issuances. Without duplication of any adjustment otherwise provided for in this Section 2, the number of shares of common stock issuable upon conversion of the Shares shall be subject to anti-dilution adjustment from time to time in the manner set forth in the Company's Articles or Certificate of Incorporation as if the Shares were issued and outstanding on and as of the date of any such required adjustment.

2.5 No Fractional Share. No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share, less (ii) the then-effective Warrant Price.

2.6 Notice/Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company, at the Company's expense, shall notify Holder in writing within a reasonable time setting forth the adjustments to the Warrant Price, Class and/or number of Shares and facts upon which such adjustment is based. The Company shall, upon written request from Holder, furnish Holder with a certificate of its Chief Financial Officer, including computations of such adjustment and the Warrant Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the price per share at which shares of the Class were last sold and issued prior to the Issue Date hereof in an arms-length transaction in which at least Five Hundred Thousand Dollars ($500,000) of such shares were sold.

(b) All Shares which may be issued upon the exercise of this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, upon issuance, be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws. The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class, common stock and other securities as will be sufficient to permit the exercise in full of this Warrant and the conversion of the Shares into common stock or such other securities.

(c) The Company's capitalization table attached hereto as Schedule 1 is true and complete, in all material respects, as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of the Class or common stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual participation or pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of the Class;

(d) effect an Acquisition or to liquidate, dissolve or wind up; or

(e) effect an IPO;

then, in connection with each such event, the Company shall give Holder:

(1) in the case of the matters referred to in (a) and (b) above, at least seven (7) Business Days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of outstanding shares of the Class will be entitled thereto) or for determining rights to vote, if any.

(2) in the case of the matters referred to in (c) and (d) above at least seven (7) Business Days prior written notice of the date when the same will take place (and specifying the date on which the holders of outstanding shares of the Class will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event and such reasonable information as Holder may reasonably require regarding the treatment of this Warrant in connection with such event giving rise to the notice); and

(3) with respect to the IPO, at least seven (7) Business Days prior written notice of the date on which the Company proposes to publicly file its registration statement in connection therewith.

Company will also provide information requested by Holder that is reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements.

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6 Market Stand-off Agreement. The Holder agrees that the Shares shall be subject to the Market Standoff provisions in Section 2.11 of the Investor Rights Agreement or similar agreement.

4.7 No Voting Rights. Holder, as a Holder of this Warrant, will not have any voting rights until the exercise of this Warrant.

SECTION 5. GOVERNING LAW, VENUE, JURY TRIAL WAIVER, AND JUDICIAL REFERENCE.

5.1 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

5.2 Jurisdiction and Venue. The Company and Holder each submit to the exclusive jurisdiction of the State and Federal courts in Santa Clara County, California; provided, however, that nothing in this Warrant shall be deemed to operate to preclude Holder from bringing suit or taking other legal action in any other jurisdiction to enforce a judgment or other court order in favor of Holder. The Company expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and the Company hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. The Company hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made in accordance with Section 6.5 of this Warrant.

5.3 Jury Trial Waiver. **TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE COMPANY AND HOLDER EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS WARRANT, THE LOAN AGREEMENT OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR THE PARTIES' AGREEMENT TO THIS WARRANT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL**.

5.4 Judicial Reference. WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY

JURY, if the waiver of the right to a trial by jury in Section 5.3 above is not enforceable, the parties agree that any and all disputes or controversies of any nature between them arising at any time shall be decided by a reference to a private judge, mutually selected by the parties (or, if they cannot agree, by the Presiding Judge of the Santa Clara County, California Superior Court) appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts), sitting without a jury, in Santa Clara County, California; and the parties hereby submit to the jurisdiction of such court. The reference proceedings shall be conducted pursuant to and in accordance with the provisions of California Code of Civil Procedure §§ 638 through 645.1, inclusive. The private judge shall have the power, among others, to grant provisional relief, including without limitation, entering temporary restraining orders, issuing preliminary and permanent injunctions and appointing receivers. All such proceedings shall be closed to the public and confidential and all records relating thereto shall be permanently sealed. If during the course of any dispute, a party desires to seek provisional relief, but a judge has not been appointed at that point pursuant to the judicial reference procedures, then such party may apply to the Santa Clara County, California Superior Court for such relief. The proceeding before the private judge shall be conducted in the same manner as it would be before a court under the rules of evidence applicable to judicial proceedings. The parties shall be entitled to discovery which shall be conducted in the same manner as it would be before a court under the rules of discovery applicable to judicial proceedings. The private judge shall oversee discovery and may enforce all discovery rules and orders applicable to judicial proceedings in the same manner as a trial court judge. The parties agree that the selected or appointed private judge shall have the power to decide all issues in the action or proceeding, whether of fact or of law, and shall report a statement of decision thereon pursuant to California Code of Civil Procedure § 644(a). Nothing in this paragraph shall limit the right of any party at any time to exercise self-help remedies or obtain provisional remedies. The private judge shall also determine all issues relating to the applicability, interpretation, and enforceability of this paragraph.

5.5 Survival. This Section 5 shall survive the termination of this Warrant

SECTION 6. MISCELLANEOUS.

6.1 Term and Automatic Conversion upon Expiration.

(a) Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before 6:00 PM, Pacific time, on the Expiration Date and shall be void thereafter.

(b) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Shares (or such other securities) issued upon such exercise to Holder.

6.2 Legends. The Shares (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) shall be imprinted with a legend in substantially the following form:

> THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE ISSUER TO SILICON VALLEY BANK DATED SEPTEMBER 1, 2020, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

6.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issuable upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part except in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Silicon Valley Bank, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144 promulgated under the Act.

6.4 Transfer Procedure. After receipt by Silicon Valley Bank of the executed Warrant, Silicon Valley Bank will transfer all of this Warrant to its parent company, SVB Financial Group. By its acceptance of this Warrant, SVB Financial Group hereby makes to the Company each of the representations and warranties set forth in Section 4 hereof and agrees to be bound by all of the terms and conditions of this Warrant as if the original Holder hereof. Subject to the provisions of Section 6.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant or the Shares issuable upon exercise of this Warrant (or the securities issuable directly or indirectly, upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable); and provided further, that any subsequent transferee other than SVB Financial Group shall agree in writing with the Company to be bound by all of the terms and conditions of this Warrant. Notwithstanding any contrary provision herein, at all times prior to the IPO, Holder may not, without the Company's prior written consent, transfer this Warrant or any portion hereof, or any Shares issued upon any exercise hereof, or any shares or other securities issued upon any conversion of any Shares issued upon any exercise hereof, to any person or entity who directly competes with the Company, except in connection with an Acquisition of the Company by such a direct competitor.

6.5 Notices. All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 6.5. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

SVB Financial Group
Attn: Treasury Department
3003 Tasman Drive, HC 215
Santa Clara, CA 95054
Telephone: (408) 654-7400
Facsimile: (408) 988-8317

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

PIPELINE THERAPEUTICS, INC.
10578 Science Center Drive, Suite 200
San Diego, CA 92121
Attn: Carmine Stengone, CEO

With a copy (which shall not constitute notice) to:

Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP
c/o Jeffrey Thacker
3570 Carmel Mountain Road
Suite 200
San Diego, CA 92130

6.6 Waiver. Notwithstanding any contrary provision herein or in the Loan Agreement, this Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

6.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

6.8 Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement. Any signature page delivered electronically or by facsimile shall be binding to the same extent as an original signature page with regards to any agreement subject to the terms hereof or any amendment thereto.

6.9 Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

6.10 Business Days. "**Business Day**" is any day that is not a Saturday, Sunday or a day on which Silicon Valley Bank is closed.

[Remainder of page left blank intentionally]
[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

"COMPANY"

PIPELINE THERAPEUTICS, INC.

By: /s/ Carmine Stengone
Name: Carmine Stengone
Title: Chief Executive Officer and President

"HOLDER"

SILICON VALLEY BANK

By: /s/ Annie Kadota
Name: Annie Kadota
Title: Vice President

APPENDIX 1

NOTICE OF EXERCISE OF WARRANT

1. The undersigned Holder hereby exercises its right to purchase _____ shares of the Series B Preferred Stock of PIPELINE THERAPEUTICS, INC. (the "Company") in accordance with the attached Warrant to Purchase Stock, and tenders payment of the aggregate Warrant Price for such shares as follows:

[ ] check in the amount of $_____ payable to the order of the Company enclosed herewith

[ ] Wire transfer of immediately available funds to the Company's account

[ ] Cashless Exercise pursuant to Section 1.2 of the Warrant

[ ] Other [Describe] _____

2. Please issue a certificate or certificates representing the Shares in the name specified below:

_____
Holder's Name

_____

_____
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Section 4 of the Warrant to Purchase Stock as of the date hereof.

HOLDER:

_____

By: _____

Name: _____

Title: _____

(Date): _____

SCHEDULE 1

Company Capitalization Table

See attached

Exhibit 4.4

PIPELINE THERAPEUTICS, INC.

July 9, 2021

c/o Baker Bros. Advisors LP
860 Washington St. – 3rd fl.
New York, NY 10014

Re: Board and Observer Rights

Ladies and Gentlemen:

Subject to and in consideration of the purchase of shares of Series C Preferred Stock, par value $0.001 per share (the "Series C Preferred Stock"), of Pipeline Therapeutics, Inc., a Delaware corporation (the "Company"), by Baker Bros. Advisors LP and/or one or more of its Affiliates (as defined below) (each, an "Investor" and together, the "Investors") pursuant to the terms and conditions of that certain Series C Preferred Stock Purchase Agreement by and among the Company, the Investors and the other parties named therein dated as of the date hereof (the "Purchase Agreement"), the parties to this letter hereby agree as follows:

1. ***Definitions***. As used in this letter, the following terms shall have the following respective meanings:

(a) "Affiliate" has the meaning given to that term in Rule 12b-2 under the Securities Exchange Act of 1934, as amended.

(b) "Board of Directors" means the Board of Directors of the Company.

(c) "Bylaws" means the Bylaws of the Company, as may be amended, restated or otherwise modified from time to time.

(d) "Class A Common Stock" means shares of the Company's Class A Common Stock, par value $0.001 per share.

(e) "Class B Common Stock" means shares of the Company's Class B Common Stock, par value $0.001 per share.

(f) "Common Stock" means shares of Class A Common Stock or Class B Common Stock.

(g) "Company Charter" means the Fourth Amended and Restated Certificate of Incorporation of the Company, as in effect on the date hereof

(h) 'Investor Rights Agreement" means that certain Amended and Restated Investor Rights Agreement, dated as of the date hereof, by and between the Company, the Investors, and the other Investors party thereto.

(i) "Offering" means the Company's first underwritten public offering of its Common Stock under the Securities Act of 1933, as amended prior to and including a Qualified IPO (as defined in the Company Charter).

(j) "Required Shares" means at least 75% of the shares of the Series C Preferred purchased by the Investor pursuant to the Purchase Agreement, or such number of shares of Common Stock (whether voting or non-voting) issued upon conversion of such number of shares of Series C Preferred (in either case, as adjusted for any stock split, stock dividend, combination, or other recapitalization or reclassification or similar transaction).

(k) "Subsidiary Board" means each board of directors or similar governing body of each direct or indirect subsidiary of the Company.

2. ***Board Rights***.

(a) Subject at all times to Section 2(b) below, during the period beginning at the closing of the Offering through and including the third (3rd) anniversary of the closing of the Offering and so long as the Investor and its Affiliates, collectively, beneficially own the Required Shares, at any time (and from time to time) that the Investor and its Affiliates, collectively, beneficially own at least 2% of the Company's then-outstanding outstanding voting power, the Company shall support the nomination of, and cause the Board of Directors (or the nominating committee thereof), subject to the requirements of fiduciary duties under applicable law, to include in the slate of nominees recommended to the Company's stockholders for election as directors of the Company at each annual or special meeting of the Company's stockholders at which directors are to be elected (an "Election Meeting"), one (1) person designated at any time and from time to time by the Investor (the "Investor Designee"); provided that, in the event that the Investors do not exercise such right such that they nominate an Investor Designee to serve as a director immediately following the closing of the Qualified IPO (which right must be exercised not less than twenty-one (21) days in advance of the closing of the Qualified IPO), the Investors shall not exercise such right until after the 90th day following the closing date of the Qualified IPO; and provided, further, that the Company shall have no obligation to support the nomination of or cause the Board of Directors to include in the slate of nominees recommended to the Company's stockholders for election as directors of the Company an Investor Designee if the Investor already has at least one Investor Designee serving as a director on the Board of Directors at the time of the Election Meeting and the term of such Investor Designee as a director on the Board of Directors does not expire at such Election Meeting. In the event that the Investor Designee resigns from his or her seat on the Board of Directors or is removed or otherwise fails to become or ceases to be a director for any reason, the Company shall cause the vacancy to be filled by the election or appointment of another Investor Designee nominated by the Investor as soon as reasonably practicable in compliance with applicable laws, rules and regulations, subject to the requirements of fiduciary duties. Investor will provide the Company, in writing, the information about the Investor Designee that is reasonably required by applicable law for inclusion in the Company's proxy materials for meetings of stockholders promptly after the Company requests such information from the Investor, and will cause the Investor Designee to submit on a timely basis to the Company a completed and executed questionnaire in the form that the Company

provides to its outside directors generally. The rights set forth in this Section 2(a) shall terminate and be of no further force or effect immediately upon such time as the Investors and/or their Affiliates cease to collectively own beneficially the Required Shares.

(b) Notwithstanding the provisions of Section 2(a), the Investor shall not be entitled to designate any individual as a nominee to the Board of Directors if a majority of the disinterested members of the Board of Directors reasonably and in good faith determine, after consultation with the Company's outside legal counsel and upon written advice of such counsel, that such person would not be qualified to serve as a director of the Company under any applicable law (including requirements of fiduciary duties under applicable law), rule or regulation, rule of the stock exchange on which the Company's shares are listed, the Bylaws or any policy, or guidelines previously approved by the Board of Directors, provided that a direct or indirect purpose of any such policy or guideline is not to obstruct the Investor's right to designate an individual as a nominee to the Board of Directors or its rights under this letter. The Company shall notify the Investor of any objection to an Investor Designee pursuant to this Section 3(b) sufficiently in advance of the date on which the proxy materials related to any such designee are to be mailed by the Company in connection with such election of directors, and in no event less than the first business day after such determination by the Board of Directors, so as to enable the Investor to propose a replacement Investor Designee in accordance with the terms of this letter.

(c) Subject at all times to the limitations set forth in this Section 2(c), from and after the Closing at any time (and from time to time) that the Investor and its Affiliates, collectively, beneficially own the Required Shares, the Company shall invite a single representative of the Investors (the "BBA Observer"), as designated by the Investors from time to time, to attend and participate in all meetings of the Board of Directors and each committee thereof (as well as each Subsidiary Board) in a nonvoting observer capacity. In this respect, the Company shall give the BBA Observer (i) written notice of, agendas and participation details for such meetings and (ii) copies of all notices, minutes, consents, and other materials, in each case, that it provides to the members of the Board of Directors, the Subsidiary Board, or any committees thereof, as applicable, at substantially the same time and in the same manner as provided to such members; provided, however, that the BBA Observer shall agree to hold in confidence and trust all information so provided; and provided, further, that the Company reserves the right to withhold any information and to exclude the BBA Observer from any meeting or portion thereof that the (A) Board of Directors, the Subsidiary Board, or any committee thereof, as applicable, determines in good faith and based upon the advice of outside counsel that (i) access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel or (ii) access to such information or attendance at such meeting could result in a conflict of interest or (B) to protect trade secrets (unless covered by an enforceable confidentiality agreement, in a form reasonably acceptable to the Company), or a conflict of interest, or if the Investor or BBA Observer is a competitor of the Company. The BBA Observer shall not, by virtue of his or her capacity as such, have or be deemed to have, or otherwise be subject to, any duties (fiduciary or otherwise) to the Company or any of its Affiliates or subsidiaries or its or their respective equityholders or any other person or entity or any duties (fiduciary or otherwise) otherwise applicable to the members of the Board or any Subsidiary Board. With respect to the BBA Observer, the Company's obligations under this

Section 2(c) are contingent upon such BBA Observer's (x) entering into a confidentiality agreement with the Company in a form that is reasonably acceptable to the Company and the Investor and (y) agreeing, solely in such individual's capacity as a BBA Observer, to be bound by the Company's insider trading and window policies then in effect and applicable to members of the Board of Directors.

3. ***Consent Rights.*** For so long as any Investor holds any shares of Preferred Stock and notwithstanding any termination of this letter, or any shares of any other class or series of preferred stock of the Company, in addition to any other vote or consent required under the Company Charter or by law, the vote or written consent of the Investors shall be necessary for the Company to effect or validate any of the following actions (whether by merger, recapitalization or otherwise) and any such act or transaction entered into or approved without such consent or vote shall be null and void ab initio, and of no force or effect:

(a) waive, alter, amend, repeal or change the rights, preferences or privileges of the Class B Common Stock; or

(b) increase or decrease the authorized number of shares of Class B Common Stock.

4. ***Amendments; Entire Agreement.*** This letter may not be amended or modified in any manner except by a written instrument signed by the Investors and the Company. This letter (including the Exhibits hereto), together with the Investor Rights Agreement, constitutes the full and entire understanding and agreement between the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled. Nothing in this letter shall limit or otherwise modify the rights of the Investors under the Investor Rights Agreement.

5. ***Governing Law; Jurisdiction.*** This letter shall be governed by the laws of the State of New York, without regard to conflict of law principles. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of the State of Delaware and to the jurisdiction of the United States District Court for the District of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this letter, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this letter except in the state courts of the State of Delaware or the United States District Court for the District of Delaware, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this letter or the subject matter hereof may not be enforced in or by such court.

6. ***WAIVER OF JURY TRIAL.*** EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS LETTER OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS LETTER, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

7. ***Termination***. Unless otherwise stated herein, the terms of this letter shall automatically terminate on the third (3rd) anniversary of the closing of the Offering.

[Signature Page Follows]

Very truly yours,

PIPELINE THERAPEUTICS, INC.

By: /s/ Carmine Stengone
Name: Carmine Stengone
Title: Chief Executive Officer

AGREED AND ACCEPTED:
BAKER BROS. ADVISORS LP

By: /s/ Scott Lessing
Name: Scott Lessing
Title: President

[Signature Page to BBA Letter Agreement]

AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT

This Amended and Restated Registration Rights Agreement (this "Agreement") is made as of July 9, 2021 by and between Pipeline Therapeutics, Inc., a Delaware corporation (the "Company"), and the persons listed on the attached **Schedule A** who are signatories to this Agreement (collectively, the "Investors"). Unless otherwise defined herein, capitalized terms used in this Agreement have the respective meanings ascribed to them in Section 1.

RECITALS

WHEREAS, the Company and the Investors wish to provide for certain arrangements with respect to the registration of the Registrable Securities (as defined below) by the Company under the Securities Act (as defined below).

WHEREAS, the Company and the Investors entered into that certain Registration Rights Agreement, dated as of May 20, 2021 (the "Prior Agreement") and desire to amend and restated the Prior Agreement in its entirety on the terms and subject to the conditions set forth herein.

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth herein, and other consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto agree as follows:

Section 1.
Definitions

1.1. Certain Definitions. In addition to the terms defined elsewhere in this Agreement, as used in this Agreement, the following terms have the respective meanings set forth below:

(a) "Block Trade" shall mean an offering of Registrable Securities which requires both the Investors and the Company to enter into a sale agreement and is limited in scope of selling efforts as compared to an Underwritten Offering.

(b) "Board" shall mean the Board of Directors of the Company.

(c) "Commission" shall mean the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.

(d) "Common Stock" shall mean the common stock of the Company, par value $0.001 per share.

(e) "Exchange Act" shall mean the Securities Exchange Act of 1934, as amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time.

(f) "Investor Rights Agreement" shall mean that certain Amended and Restated Investor Rights Agreement, dated as of February 9, 2021, by and among the Company and each of the Investors party thereto, as may be amended, modified or supplemented from time to time.

(g) "Governmental Entity" shall mean any federal, state, local or foreign government, or any department, agency, or instrumentality of any government; any public international organization, any transnational governmental organization; any court of competent jurisdiction, arbitral, administrative agency, commission, or other governmental regulatory authority or quasi-governmental authority, any political party; and any national securities exchange or national quotation system.

(h) "Other Securities" shall mean securities of the Company, other than Registrable Securities (as defined below).

(i) "Person" shall mean any individual, partnership, corporation, company, association, trust, joint venture, limited liability company, unincorporated organization, entity or division, or any government, governmental department or agency or political subdivision thereof.

(j) "Registrable Securities" shall mean the shares of Common Stock and any Common Stock issued or issuable upon the exercise or conversion of any other securities (whether equity, debt or otherwise) of the Company now owned or hereafter acquired by any of the Investors. Registrable Securities shall cease to be Registrable Securities upon the earliest to occur of the following events: (i) such Registrable Securities have been sold pursuant to an effective Registration Statement; (ii) such Registrable Securities have been sold by the Investors pursuant to Rule 144 (or other similar rule); or (iii) ten (10) years after the date of this Agreement. For purposes of this definition, in order to determine whether an Investor is an "affiliate" (as such term is defined and used in Rule 144, and including for determining whether volume or manner of sale limitations of Rule 144 apply) the parties will assume that all convertible securities (whether equity, debt or otherwise) have been converted into Common Stock.

(k) The terms "register," "registered" and "registration" shall refer to a registration effected by preparing and filing a Registration Statement in compliance with the Securities Act, and such Registration Statement becoming effective under the Securities Act.

(l) "Registration Expenses" shall mean all expenses incurred by the Company in effecting any registration pursuant to this Agreement, including, without limitation, all registration, qualification, and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company, up to $50,000 of reasonable legal expenses of one special counsel for Investors (if different from the Company's counsel and if such counsel is reasonably approved by the Company) in connection with the preparation and filing of the Resale Registration Shelf (as defined below), and up to $50,000 of reasonable legal expenses of one special counsel for the Investors (if different from the Company's counsel and if such counsel is reasonably approved by the Company) per Underwritten Offering, blue sky fees and expenses, and expenses of any regular or special audits incident to or required by any such registration, but shall not include Selling Expenses.

(m) "Registration Statement" means any registration statement of the Company filed with, or to be filed with, the Commission under the Securities Act, including the related prospectus, amendments and supplements to such registration statement, including pre- and post-effective amendments, and all exhibits and all material incorporated by reference in such registration statement as may be necessary to comply with applicable securities laws other than a registration statement (and related prospectus) filed on Form S-4 or Form S-8 or any successor forms thereto.

(n) "Rule 144" shall mean Rule 144 as promulgated by the Commission under the Securities Act, as such rule may be amended from time to time, or any similar successor rule that may be promulgated by the Commission.

(o) "Securities Act" shall mean the Securities Act of 1933, as amended, or any similar successor federal statute and the rules and regulations thereunder, all as the same shall be in effect from time to time.

(p) "Selling Expenses" shall mean all underwriting discounts and selling commissions applicable to the sale of Registrable Securities, the fees and expenses of any legal counsel (except as provided in the definition of "Registration Expenses") and any other advisors any of the Investors engage and all similar fees and commissions relating to the Investors' disposition of the Registrable Securities.

(q) "Underwritten Offering" shall mean a public offering of Registrable Securities pursuant to an effective registration statement under the Securities Act (other than pursuant to a registration statement on Form S-4 or S-8 or any similar or successor form) which requires the Investors and the Company to enter into an underwriting agreement.

Section 2.
Resale Registration Rights

2.1. Resale Registration Rights.

(a) Following demand by any Investor the Company shall file with the Commission a Registration Statement on Form S-3 (except if the Company is not then eligible to register for resale the Registrable Securities on Form S-3, in which case such registration shall be on another appropriate form in accordance with the Securities Act) covering the resale of the Registrable Securities by the Investors (the "Resale Registration Shelf"), and the Company shall file such Resale Registration Shelf as promptly as reasonably practicable following such demand, and in any event within sixty (60) days of such demand; provided, however, that the Company shall not be obligated to make any such filing until one year following the date of the Company's initial public offering (the "Demand Effective Date"). Such Resale Registration Shelf shall include a "final" prospectus, including the information required by Item 507 of Regulation S-K of the Securities Act, as provided by the Investors in accordance with Section 2.7. Notwithstanding the foregoing, before filing the Resale Registration Shelf, the Company shall furnish to the Investors a copy of the Resale Registration Shelf and afford the Investors an opportunity to review and comment on the Resale Registration Shelf. The Company's obligation pursuant to this Section 2.1(a) is conditioned upon the Investors providing the information contemplated in Section 2.7. Notwithstanding anything contained herein to the contrary, any demand made by an Investor pursuant to this Agreement that the Company file with the Commission a Registration Statement shall be deemed to be a demand for registration of the same nature (i.e., Form S-3 or Form S-1, underwritten or not) pursuant to the Investor Rights Agreement to the extent such rights are, at the relative time, available pursuant to the Investor Rights Agreement.

(b) The Company shall use its reasonable best efforts to cause the Resale Registration Shelf and related prospectuses to become effective as promptly as practicable after filing. The Company

shall use its reasonable best efforts to cause such Registration Statement to remain effective under the Securities Act until the earlier of the date (i) all Registrable Securities covered by the Resale Registration Shelf have been sold or may be sold freely without limitations or restrictions as to volume or manner of sale pursuant to Rule 144 or (ii) all Registrable Securities covered by the Resale Registration Shelf otherwise cease to be Registrable Securities pursuant to the definition of Registrable Securities. The Company shall promptly, and within two (2) business days after the Company confirms the effectiveness of the Resale Registration Shelf with the Commission, notify the Investors of the effectiveness of the Resale Registration Shelf.

(c) Notwithstanding anything contained herein to the contrary, the Company shall not be obligated to effect, or to take any action to effect, a registration pursuant to Section 2.1(a):

(i) if the Company has and maintains an effective Registration Statement on Form S-3ASR that provides for the resale of an unlimited number of securities by selling stockholders (a "Company Registration Shelf");

(ii) during the period forty-five (45) days prior to the Company's good faith estimate of the date of filing of a Company Registration Shelf; or

(iii) if the Company has caused a Registration Statement to become effective pursuant to this Section 2.1 or pursuant to Section 2 of the Investor Rights Agreement during the prior twelve (12) month period.

(d) If the Company has a Company Registration Shelf in place at any time in which the Investors make a demand pursuant to Section 2.1(a), the Company shall file with the Commission, as promptly as practicable, and in any event within fifteen (15) business days after such demand, a "final" prospectus supplement to its Company Registration Shelf covering the resale of the Registrable Securities by the Investors (the "Prospectus"); provided, however, that (i) the Company shall not be obligated to make any such filing until after the Demand Effective Date and (ii) the Company shall not be obligated to file more than one Prospectus pursuant to this Section 2.1(d) in any six month period to add additional Registrable Securities to the Company Registration Shelf that were acquired by the Investors other than directly from the Company or in an underwritten public offering by the Company. The Prospectus shall include the information required under Item 507 of Regulation S-K of the Securities Act, which information shall be provided by the Investors in accordance with Section 2.7. Notwithstanding the foregoing, before filing the Prospectus, the Company shall furnish to the Investors a copy of the Prospectus and afford the Investors an opportunity to review and comment on the Prospectus.

(e) Deferral and Suspension. At any time after being obligated pursuant to this Agreement or the Investor Rights Agreement to file a Resale Registration Shelf or Prospectus, or after any Resale Registration Shelf has become effective or a Prospectus is filed with the Commission, the Company may defer the filing of or suspend the use of any such Resale Registration Shelf or Prospectus, upon giving written notice of such action to the Investors with a certificate signed by the Chief Executive Officer of the Company stating that in the good faith judgment of the Board, the filing or use of any such Resale Registration Shelf or Prospectus covering the Registrable Securities would be seriously detrimental to the Company or its stockholders at such time and that the Board concludes, as a result, that it is in the best interests of the Company and its stockholders

to defer the filing or suspend the use of such Resale Registration Shelf or Prospectus at such time. The Company shall have the right to defer the filing of or suspend the use of such Resale Registration Shelf or Prospectus for a period of not more than one hundred twenty (120) days from the date the Company notifies the Investors of such deferral or suspension; provided that the Company shall not exercise the right contained in this Section 2.1(e) more than once in any twelve month period. In the case of the suspension of use of any effective Resale Registration Shelf or Prospectus, the Investors, immediately upon receipt of notice thereof from the Company, shall discontinue any offers or sales of Registrable Securities pursuant to such Resale Registration Shelf or Prospectus until advised in writing by the Company that the use of such Resale Registration Shelf or Prospectus may be resumed. In the case of a deferred Prospectus or Resale Registration Shelf filing, the Company shall provide prompt written notice to the Investors of (i) the Company's decision to file or seek effectiveness of the Prospectus or Resale Registration Shelf, as the case may be, following such deferral and (ii) in the case of a Resale Registration Shelf, the effectiveness of such Resale Registration Shelf. In the case of either a suspension of use of, or deferred filing of, any Resale Registration Shelf or Prospectus, the Company shall not, during the pendency of such suspension or deferral, be required to take any action hereunder (including any action pursuant to Section 2.2 hereof) with respect to the registration or sale of any Registrable Securities pursuant to any such Resale Registration Shelf, Company Registration Shelf or Prospectus.

(f) Other Securities. Subject to Section 2.2(e) below, any Resale Registration Shelf or Prospectus may include Other Securities, and may include securities of the Company being sold for the account of the Company; provided such Other Securities are excluded first from such Registration Statement in order to comply with any applicable laws or request from any Government Entity, Nasdaq or any applicable listing agency. For the avoidance of doubt, no Other Securities may be included in an Underwritten Offering pursuant to Section 2.2 without the consent of the Investors, except as may be required pursuant to the Investor Rights Agreement.

2.2. Sales and Underwritten Offerings of the Registrable Securities.

(a) Notwithstanding any provision contained herein to the contrary, the Investors, collectively, shall and subject to the limitations set forth in this Section 2.2, be permitted (i) one Underwritten Offering per calendar year, but no more than three Underwritten Offerings in total, and (ii) no more than two Underwritten Offerings or Block Trades in any twelve month period, to effect the sale or distribution of Registrable Securities.

(b) If the Investors intend to effect an Underwritten Offering or Block Trade pursuant to a Resale Registration Shelf or Company Registration Shelf to sell or otherwise distribute Registrable Securities, they shall so advise the Company and provide as much notice to the Company as reasonably practicable (and, in either case, not less than fifteen (15) business days prior to the Investors' request that the Company file a prospectus supplement to a Resale Registration Shelf or Company Registration Shelf).

(c) In connection with any offering initiated by the Investors pursuant to this Section 2.2 involving an underwriting of shares of Registrable Securities, the Investors shall be entitled to select the underwriter or underwriters for such offering, subject to the consent of the Company, such consent not to be unreasonably withheld, conditioned or delayed.

(d) In connection with any offering initiated by the Investors pursuant to this Section 2.2 involving an Underwritten Offering of Registrable Securities, the Company shall not be required to include any of the Registrable Securities in such underwriting unless the Investors (i) enter into an underwriting agreement in customary form with the underwriter or underwriters, (ii) accept customary terms in such underwriting agreement with regard to representations and warranties relating to ownership of the Registrable Securities and authority and power to enter into such underwriting agreement and (iii) complete and execute all questionnaires, powers of attorney, custody agreements, indemnities and other documents as may be requested by such underwriter or underwriters. Further, the Company shall not be required to include any of the Registrable Securities in such underwriting if (Y) the underwriting agreement proposed by the underwriter or underwriters contains representations, warranties or conditions that are not reasonable in light of the Company's then-current business or (Z) the underwriter, underwriters or the Investors require the Company to participate in any marketing, road show or comparable activity that may be required to complete the orderly sale of shares by the underwriter or underwriters.

(e) If the total amount of securities to be sold in any offering initiated by the Investors pursuant to this Section 2.2 involving an underwriting of shares of Registrable Securities exceeds the amount that the underwriters determine in their sole discretion is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities (subject in each case to the cutback provisions set forth in this Section 2.2(e)), that the underwriters and the Company determine in their sole discretion shall not jeopardize the success of the offering. If the Underwritten Offering has been requested pursuant to Section 2.2(a) hereof, the number of shares that are entitled to be included in the registration and underwriting shall be allocated in the following manner: (a) first, shares of Company equity securities that the Company desires to include in such registration shall be excluded and (b) second, Registrable Securities requested to be included in such registration by the Investors shall be excluded. For the avoidance of doubt, no other person besides the Investors shall be entitled to participate in any Block Trade. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round down the number of shares allocated to any of the Investors to the nearest 100 shares.

2.3. Fees and Expenses. All Registration Expenses incurred in connection with registrations pursuant to this Agreement shall be borne by the Company. All Selling Expenses relating to securities registered on behalf of the Investors shall be borne by the Investors.

2.4. Registration Procedures. In the case of each registration of Registrable Securities effected by the Company pursuant to Section 2.1 hereof, the Company shall keep the Investors advised as to the initiation of each such registration and as to the status thereof. The Company shall use its reasonable best efforts, within the limits set forth in this Section 2.4, to:

(a) prepare and file with the Commission such amendments and supplements to such Registration Statement and the prospectuses used in connection with such Registration Statement as may be necessary to keep such Registration Statement effective and current and comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such Registration Statement;

(b) furnish to the Investors such numbers of copies of a prospectus, including preliminary prospectuses, in conformity with the requirements of the Securities Act, and such other documents as the Investors may reasonably request in order to facilitate the disposition of Registrable Securities;

(c) use its reasonable best efforts to register and qualify the Registrable Securities covered by such Registration Statement under such other securities or blue sky laws of such jurisdictions in the United States as shall be reasonably requested by the Investors, provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions;

(d) in the event of an Underwritten Offering or Block Trade, and subject to Section 2.2(d), enter into and perform its obligations under an underwriting agreement or Block Trade sale agreement, in usual and customary form (including any "lock-ups" on behalf of the Company and its directors and officers), with the managing underwriter of such offering and take such other usual and customary action as the Investors may reasonably request in order to facilitate the disposition of such Registrable Securities;

(e) notify the Investors at any time when a prospectus relating to a Registration Statement covering any Registrable Securities is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such Registration Statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing. The Company shall use its reasonable best efforts to amend or supplement such prospectus in order to cause such prospectus not to include any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading in the light of the circumstances then existing;

(f) provide a transfer agent and registrar for all Registrable Securities registered pursuant to such Registration Statement and, if required, a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(g) if requested by an Investor, use reasonable best efforts to cause the Company's transfer agent to remove any restrictive legend from any Registrable Securities, within two business days following such request;

(h) cause to be furnished, at the request of the Investors, on the date that Registrable Securities are delivered to underwriters for sale in connection with an Underwritten Offering or Block Trade, (i) an opinion, dated such date, of the counsel representing the Company for the purposes of such registration, in form and substance as is customarily given to underwriters in an underwritten public offering, addressed to the underwriters, and (ii) a letter or letters from the independent certified public accountants of the Company, in form and substance as is customarily given by independent certified public accountants to underwriters in an underwritten public offering, addressed to the underwriters; and

(i) cause all such Registrable Securities included in a Registration Statement pursuant to this Agreement to be listed on each securities exchange or other securities trading markets on which Common Stock is then listed.

2.5. The Investors Obligations.

(a) Discontinuance of Distribution. The Investors agree that, upon receipt of any notice from the Company of the occurrence of any event of the kind described in Section 2.4(e) hereof, the Investors shall immediately discontinue disposition of Registrable Securities pursuant to any Registration Statement covering such Registrable Securities until the Investors' receipt of the copies of the supplemented or amended prospectus contemplated by Section 2.4(e) hereof or receipt of notice that no supplement or amendment is required and that the Investors' disposition of the Registrable Securities may be resumed. The Company may provide appropriate stop orders to enforce the provisions of this Section 2.5(a).

(b) Compliance with Prospectus Delivery Requirements. The Investors covenant and agree that they shall comply with the prospectus delivery requirements of the Securities Act as applicable to them or an exemption therefrom in connection with sales of Registrable Securities pursuant to any Registration Statement filed by the Company pursuant to this Agreement.

(c) Notification of Sale of Registrable Securities. The Investors covenant and agree that they shall notify the Company following the sale of Registrable Securities to a third party as promptly as reasonably practicable, and in any event within thirty (30) days, following the sale of such Registrable Securities.

2.6. Indemnification.

(a) To the extent permitted by law, the Company shall indemnify the Investors, and, as applicable, their officers, directors, and constituent partners, legal counsel for each Investor and each Person controlling the Investors, with respect to which registration, related qualification, or related compliance of Registrable Securities has been effected pursuant to this Agreement, and each underwriter, if any, and each Person who controls any underwriter within the meaning of the Securities Act against all claims, losses, damages, or liabilities (or actions in respect thereof) to the extent such claims, losses, damages, or liabilities arise out of or are based upon (i) any untrue statement (or alleged untrue statement) of a material fact contained in any prospectus or other document (including any related Registration Statement) incident to any such registration, qualification, or compliance, or (ii) any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by the Company of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law applicable to the Company and relating to action or inaction required of the Company in connection with any such registration, qualification, or compliance; and the Company shall pay as incurred to the Investors, each such underwriter, and each Person who controls the Investors or underwriter, any reasonable and documented out of pocket legal expenses and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability, or action; provided, however, that the indemnity contained in this Section 2.6(a) shall not apply to amounts paid in settlement of any

such claim, loss, damage, liability, or action if settlement is effected without the consent of the Company (which consent shall not unreasonably be withheld); and provided, further, that the Company shall not be liable in any such case to the extent that any such claim, loss, damage, liability, or expense arises out of or is based upon any violation by such Investor of the obligations set forth in Section 2.5 hereof or any untrue statement or omission contained in such prospectus or other document based upon written information furnished to the Company by the Investors, such underwriter, or such controlling Person and stated to be for use therein or any bad faith or willful misconduct of the Investor.

(b) To the extent permitted by law, each Investor (severally and not jointly) shall, if Registrable Securities held by such Investor are included for sale in the registration and related qualification and compliance effected pursuant to this Agreement, indemnify the Company, each of its directors, each officer of the Company who signs the applicable Registration Statement, each legal counsel and each underwriter of the Company's securities covered by such a Registration Statement, each Person who controls the Company or such underwriter within the meaning of the Securities Act against all claims, losses, damages, and liabilities (or actions in respect thereof) arising out of or based upon (i) any untrue statement (or alleged untrue statement) of a material fact contained in any such Registration Statement, or related document, or (ii) any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, or (iii) any violation or alleged violation by such Investor of Section 2.5 hereof, the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities law applicable to such Investor and relating to action or inaction required of such Investor in connection with any such registration and related qualification and compliance, and shall pay as incurred to such persons, any legal and any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability, or action, in each case only to the extent that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in (and such violation pertains to) such Registration Statement or related document in reliance upon and in conformity with written information furnished to the Company by such Investor and stated to be specifically for use therein; provided, however, that the indemnity contained in this Section 2.6(b) shall not apply to amounts paid in settlement of any such claim, loss, damage, liability, or action if settlement is effected without the consent of such Investor (which consent shall not unreasonably be withheld); provided, further, that such Investor's liability under this Section 2.6(b) (when combined with any amounts such Investor is liable for under Section 2.6(d)) shall not exceed such Investor's net proceeds from the offering of securities made in connection with such registration.

(c) Promptly after receipt by an indemnified party under this Section 2.6 of notice of the commencement of any action, such indemnified party shall, if a claim in respect thereof is to be made against an indemnifying party under this Section 2.6, notify the indemnifying party in writing of the commencement thereof and generally summarize such action. The indemnifying party shall have the right to participate in and to assume the defense of such claim; provided, however, that the indemnifying party shall be entitled to select counsel for the defense of such claim with the approval of any parties entitled to indemnification, which approval shall not be unreasonably withheld; provided further, however, that if either party reasonably determines that there may be a conflict between the position of the Company and the Investors in conducting the defense of such action, suit, or proceeding by reason of recognized claims for indemnity under this Section 2.6,

then counsel for such party shall be entitled to conduct the defense to the extent reasonably determined by such counsel to be necessary to protect the interest of such party. The failure to notify an indemnifying party promptly of the commencement of any such action, if prejudicial to the ability of the indemnifying party to defend such action, shall relieve such indemnifying party, to the extent so prejudiced, of any liability to the indemnified party under this Section 2.6, but the omission so to notify the indemnifying party shall not relieve such party of any liability that such party may have to any indemnified party otherwise than under this Section 2.6.

(d) If the indemnification provided for in this Section 2.6 is held by a court of competent jurisdiction to be unavailable to an indemnified party with respect to any loss, liability, claim, damage, or expense referred to therein, then the indemnifying party, in lieu of indemnifying such indemnified party hereunder, shall contribute to the amount paid or payable by such indemnified party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the indemnifying party on the one hand and of the indemnified party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission. In no event, however, shall (i) any amount due for contribution hereunder be in excess of the amount that would otherwise be due under Section 2.6(a) or Section 2.6(b), as applicable, based on the limitations of such provisions and (ii) a Person guilty of fraudulent misrepresentation (within the meaning of the Securities Act) be entitled to contribution from a Person who was not guilty of such fraudulent misrepresentation.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with an Underwritten Offering, or the Block Trade sale agreement, are in conflict with the foregoing provisions, the provisions in the underwriting agreement or Block Trade sale agreement shall control; provided, however, that the failure of the underwriting agreement to provide for or address a matter provided for or addressed by the foregoing provisions shall not be a conflict between the underwriting agreement or the Block Trade sale agreement and the foregoing provisions.

(f) The obligations of the Company and the Investors under this Section 2.6 shall survive the completion of any offering of Registrable Securities in a Registration Statement under this Agreement or otherwise.

2.7. Information. The Investors shall furnish to the Company such information regarding the Investors and the distribution proposed by the Investors as the Company may reasonably request and as shall be reasonably required in connection with any registration referred to in this Agreement. The Investors agree to, as promptly as practicable (and in any event prior to any sales made pursuant to a prospectus), furnish to the Company all information required to be disclosed in order to make the information previously furnished to the Company by the Investors not misleading. The Investors agree to keep confidential the receipt of any notice received pursuant to Section 2.4(e) and the contents thereof, except as required pursuant to applicable law. Notwithstanding anything to the contrary herein, the Company shall be under no obligation to name the Investors in any Registration Statement if the Investors have not provided the information required by this Section 2.7 with respect to the Investors as a selling securityholder in such Registration Statement or any related prospectus.

2.8. Rule 144 Requirements. With a view to making available to the Investors the benefits of Rule 144 and any other rule or regulation of the Commission that may at any time permit the Investors to sell Registrable Securities to the public without registration, the Company agrees to use its reasonable best efforts to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144 at all times after the date hereof;

(b) file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act;

(c) prior to the filing of the Registration Statement or any amendment thereto (whether pre-effective or post-effective), and prior to the filing of any prospectus or prospectus supplement related thereto, to provide the Investors with copies of all of the pages thereof (if any) that reference the Investors; and

(d) furnish to any Investor, so long as the Investor owns any Registrable Securities, forthwith upon request (i) a written statement by the Company that it has complied with the reporting requirements of Rule 144, (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information as may be reasonably requested by an Investor in availing itself of any rule or regulation of the Commission which permits an Investor to sell any such securities without registration.

2.9. Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not enter into any agreement with any holder or prospective holder of any securities of the Company which would provide to such holder rights with respect to the registration of such securities under the Securities Act or the Exchange Act that would conflict with or adversely affect any of the rights provided to the Investors in this Section 2; it being understood and agreed that any subsequent agreement of the Company with any holder or prospective holder of any securities of the Company of the same class (or convertible into or exchange for securities of the same class) as the Registrable Securities granting such Person rights under this Section 2 equivalent to the rights of the Investors under this Section 2 will not be prohibited by the terms of this Section 2.9.

Section 3.
Miscellaneous

3.1. Amendment. No amendment, alteration or modification of any of the provisions of this Agreement shall be binding unless made in writing and signed by each of the Company and the Investors.

3.2. Injunctive Relief. It is hereby agreed and acknowledged that it shall be impossible to measure in money the damages that would be suffered if the parties fail to comply with any of the obligations herein imposed on them and that in the event of any such failure, an aggrieved Person

shall be irreparably damaged and shall not have an adequate remedy at law. Any such Person shall, therefore, be entitled (in addition to any other remedy to which it may be entitled in law or in equity) to injunctive relief, including, without limitation, specific performance, to enforce such obligations, and if any action should be brought in equity to enforce any of the provisions of this Agreement, none of the parties hereto shall raise the defense that there is an adequate remedy at law.

3.3. Notices. All notices required or permitted under this Agreement must be in writing and sent to the address or facsimile number identified below. Notices must be given: (a) by personal delivery, with receipt acknowledged; (b) by email followed by hard copy delivered by the methods under clause (c) or (d); (c) by prepaid certified or registered mail, return receipt requested; or (d) by prepaid reputable overnight delivery service. Notices shall be effective upon receipt. Either party may change its notice address by providing the other party written notice of such change. Notices shall be delivered as follows:

If to the Investors:	At such Investor's address as set forth on **Schedule A** hereto
If to the Company:	Pipeline Therapeutics, Inc. 10578 Science Center Drive Ste. 200, San Diego, CA 92121 Attention: Chief Executive Officer E-mail:
with a copy to:	Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP 3570 Carmel Mountain Road, Suite 200 San Diego, CA 92130 Attention: Jeffrey Thacker Email:

3.4. Governing Law; Jurisdiction; Venue; Jury Trial.

(a) This Agreement shall be governed by, and construed in accordance with, the law of the State of New York without giving effect to any choice or conflict of law provision or rule (whether of the State of New York or any other jurisdiction) that would cause the application of the laws of any jurisdiction other than the State of New York.

(b) Each of the Company and the Investors irrevocably and unconditionally submits, for itself and its property, to the nonexclusive jurisdiction of the courts of the State of New York sitting in the Borough of Manhattan, New York and of the United States District Court of the Southern District of New York, and any appellate court from any thereof, in any action or proceeding arising out of or relating to this Agreement and the transactions contemplated herein, or for recognition or enforcement of any judgment, and each of the Company and the Investors irrevocably and unconditionally agrees that all claims in respect of any such action or proceeding may be heard and determined in such New York state court or, to the fullest extent permitted by applicable law, in such federal court. Each of the Company and the Investors hereto agrees that a final judgment in any such action or proceeding shall be conclusive and may be enforced in other jurisdictions by suit on the judgment or in any other manner provided by law.

(c) Each of the Company and the Investors irrevocably and unconditionally waives, to the fullest extent permitted by applicable law, any objection that it may now or hereafter have to the laying of venue of any action or proceeding arising out of or relating to this Agreement and the transactions contemplated herein in any court referred to in Section 3.4(b) hereof. Each of the Company and the Investors hereby irrevocably waives, to the fullest extent permitted by applicable law, the defense of an inconvenient forum to the maintenance of such action or proceeding in any such court.

(d) EACH OF THE COMPANY AND THE INVESTORS HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN ANY LEGAL PROCEEDING DIRECTLY OR INDIRECTLY ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY (WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY). EACH OF THE COMPANY AND THE INVESTORS (A) CERTIFIES THAT NO REPRESENTATIVE, AGENT OR ATTORNEY OF ANY OTHER PERSON HAS REPRESENTED, EXPRESSLY OR OTHERWISE, THAT SUCH OTHER PERSON WOULD NOT, IN THE EVENT OF LITIGATION, SEEK TO ENFORCE THE FOREGOING WAIVER AND (B) ACKNOWLEDGES THAT EACH OF THE COMPANY AND THE INVESTORS HAS BEEN INDUCED TO ENTER INTO THIS AGREEMENT BY, AMONG OTHER THINGS, THE MUTUAL WAIVERS AND CERTIFICATIONS IN THIS SECTION.

3.5. Successors, Assigns and Transferees. Any and all rights, duties and obligations hereunder shall not be assigned, transferred, delegated or sublicensed by any party hereto without the prior written consent of the other party; provided, however, that the Investors shall be entitled to transfer Registrable Securities to one or more of their affiliates and, solely in connection therewith, may assign their rights hereunder in respect of such transferred Registrable Securities, in each case, so long as such Investor is not relieved of any liability or obligations hereunder, without the prior consent of the Company. Any transfer or assignment made other than as provided in the first sentence of this Section 3.5 shall be null and void. Subject to the foregoing and except as otherwise provided herein, the provisions of this Agreement shall inure to the benefit of, and be binding upon, the successors, permitted assigns, heirs, executors and administrators of the parties hereto. The Company shall not consummate any recapitalization, merger, consolidation, reorganization or other similar transaction whereby stockholders of the Company receive (either directly, through an exchange, via dividend from the Company or otherwise) equity (the "Other Equity") in any other entity (the "Other Entity") with respect to Registrable Securities hereunder, unless prior to the consummation thereof, the Other Entity assumes, by written instrument, assumes the obligations under this Agreement with respect to such Other Equity as if such Other Equity were Registrable Securities hereunder.

3.6. Entire Agreement. This Agreement, together with any exhibits hereto, constitute the entire agreement between the parties relating to the subject matter hereof and all previous agreements or arrangements between the parties, written or oral, relating to the subject matter hereof are superseded.

3.7. Waiver. No failure on the part of either party hereto to exercise any power, right, privilege or remedy under this Agreement, and no delay on the part of either party hereto in exercising any power, right, privilege or remedy under this Agreement, shall operate as a waiver thereof; and no single or partial exercise of any such power, right, privilege or remedy shall preclude any other or further exercise thereof or of any other power, right, privilege or remedy.

3.8. Severability. If any part of this Agreement is declared invalid or unenforceable by any court of competent jurisdiction, such declaration shall not affect the remainder of the Agreement and the invalidated provision shall be revised in a manner that shall render such provision valid while preserving the parties' original intent to the maximum extent possible.

3.9. Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement. All references in this Agreement to sections, paragraphs and exhibits shall, unless otherwise provided, refer to sections and paragraphs hereof and exhibits attached hereto.

3.10. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be enforceable against the parties that execute such counterparts (including by facsimile or other electronic means), and all of which together shall constitute one instrument.

3.11. Term and Termination. Notwithstanding anything to the contrary herein, no party hereto shall have any rights or obligations under this Agreement until such time as the Company is eligible to use a Form S-3 (as defined in the Investor Rights Agreement) registration statement and, upon such time, the Investors' rights under Section 2 of the Investor Rights Agreement (other than Section 2.1 thereof) shall be temporarily suspended for such time as this Agreement remains in effect. The Investors' rights to demand the registration of the Registrable Securities under this Agreement, as well as the Company's obligations hereunder other than pursuant to Section 2.6 hereof, shall (a) be temporarily suspended if, at any time after the Investors become an affiliate of the Company, the Investors cease to be an affiliate and such Registrable Securities may be resold by the Investor holding such Registrable Securities without limitations as to volume or manner of sale pursuant to Rule 144 (which rights and obligations shall be reinstated upon again becoming an affiliate) and (b) terminate automatically once all Registrable Securities cease to be Registrable Securities pursuant to the terms of this Agreement. For purposes of this Section 3.11, the term "affiliate" shall have the same meaning as such term is defined and used in Rule 144(including for determining whether volume or manner of sale limitations of Rule 144 apply) and the parties will assume that all convertible securities (whether equity, debt or otherwise) owned by the Investors (but not those of any other person) have been converted into Common Stock.

[*Remainder of Page Intentionally Left Blank; Signature Page Follows*]

IN WITNESS WHEREOF, the parties hereto have executed this Registration Rights Agreement effective as of the day, month and year first above written.

PIPELINE THERAPEUTICS, INC.

By: /s/ Carmine Stengone
Name: Carmine Stengone
Title: Chief Executive Officer

[Signature Page to Registration Rights Agreement]

IN WITNESS WHEREOF, the parties hereto have executed this Registration Rights Agreement effective as of the day, month and year first above written.

667, L.P.

BY: BAKER BROS. ADVISORS LP,
management company and investment advisor to **667, L.P.**, pursuant to authority granted to it by Baker Biotech Capital, L.P., general partner to 667, L.P., and not as the general partner.

By: /s/ Scott Lessing
Name: Scott Lessing
Title: President

BAKER BROTHERS LIFE SCIENCES, L.P.

BY: BAKER BROS. ADVISORS LP,
management company and investment advisor to Baker Brothers Life Sciences, L.P., pursuant to authority granted to it by Baker Biotech Capital, L.P., general partner to 667, L.P., and not as the general partner.

By: /s/ Scott Lessing
Name: Scott Lessing
Title: President

Schedule A

The Investors

667, L.P.

Baker Brothers life Sciences, L.P.

To the above Investors:
Baker Brothers Investments
860 Washington Street
New York, NY 10014
Attn: Scott Lessing
Email:

With a copy to:

Akin Gump Strauss Hauer & Feld LLP
Attn: Jeffrey Kochian
Email:
One Bryant Park
New York, NY 10036-6745

PIPELINE THERAPEUTICS, INC.

2012 EQUITY INCENTIVE PLAN

(As amended February 7, 2021)

1. GENERAL.

(a) Eligible Stock Award Recipients. The persons eligible to receive Stock Awards are Employees, Directors and Consultants.

(b) Available Stock Awards. The Plan provides for the grant of the following Stock Awards: (i) Incentive Stock Options, (ii) Nonstatutory Stock Options, (iii) Stock Appreciation Rights, (iv) Restricted Stock Awards, (v) Restricted Stock Unit Awards and (vi) Other Stock Awards.

(c) Purpose. The Company, by means of the Plan, seeks to secure and retain the services of the group of persons eligible to receive Stock Awards as set forth in Section 1(a), to provide incentives for such persons to exert maximum efforts for the success of the Company and any Affiliate, and to provide a means by which such eligible recipients may be given an opportunity to benefit from increases in value of the Common Stock through the granting of Stock Awards.

2. ADMINISTRATION.

(a) Administration by Board. The Board shall administer the Plan unless and until the Board delegates administration of the Plan to a Committee or Committees, as provided in Section 2(c).

(b) Powers of Board. The Board shall have the power, subject to, and within the limitations of, the express provisions of the Plan:

(i) To determine from time to time (A) which of the persons eligible under the Plan shall be granted Stock Awards; (B) when and how each Stock Award shall be granted; (C) what type or combination of types of Stock Award shall be granted; (D) the provisions of each Stock Award granted (which need not be identical), including the time or times when a person shall be permitted to receive cash or Common Stock pursuant to a Stock Award; (E) the number of shares of Common Stock with respect to which a Stock Award shall be granted to each such person; and (F) the Fair Market Value applicable to a Stock Award.

(ii) To construe and interpret the Plan and Stock Awards granted under it, and to establish, amend and revoke rules and regulations for administration of the Plan. The Board, in the exercise of this power, may correct any defect, omission or inconsistency in the Plan or in any Stock Award Agreement, in a manner and to the extent it shall deem necessary or expedient to make the Plan or Stock Award fully effective.

(iii) To settle all controversies regarding the Plan and Stock Awards granted under it.

(iv) To accelerate the time at which a Stock Award may first be exercised or the time during which a Stock Award or any part thereof will vest in accordance with the Plan, notwithstanding the provisions in the Stock Award stating the time at which it may first be exercised or the time during which it will vest.

(v) To suspend or terminate the Plan at any time. Suspension or termination of the Plan shall not impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the affected Participant.

(vi) To amend the Plan in any respect the Board deems necessary or advisable, including, without limitation, by adopting amendments relating to Incentive Stock Options and certain nonqualified deferred compensation under Section 409A of the Code and/or to bring the Plan or Stock Awards granted under the Plan into compliance therewith, subject to the limitations, if any, of applicable law. However, except as provided in Section 9(a) relating to Capitalization Adjustments, to the extent required by applicable law, stockholder approval shall be required for any amendment of the Plan that either (A) materially increases the number of shares of Common Stock available for issuance under the Plan, (B) materially expands the class of individuals eligible to receive Stock Awards under the Plan, (C) materially increases the benefits accruing to Participants under the Plan or materially reduces the price at which shares of Common Stock may be issued or purchased under the Plan, (D) materially extends the term of the Plan, or (E) expands the types of Stock Awards available for issuance under the Plan. Except as provided above, rights under any Stock Award granted before amendment of the Plan shall not be impaired by any amendment of the Plan unless (1) the Company requests the consent of the affected Participant, and (2) such Participant consents in writing.

(vii) To submit any amendment to the Plan for stockholder approval, including, but not limited to, amendments to the Plan intended to satisfy the requirements of Section 422 of the Code regarding Incentive Stock Options.

(viii) To approve forms of Stock Award Agreements for use under the Plan and to amend the terms of any one or more Stock Awards, including, but not limited to, amendments to provide terms more favorable to the Participant than previously provided in the Stock Award Agreement, subject to any specified limits in the Plan that are not subject to Board discretion; *provided however,* that, the rights under any Stock Award shall not be impaired by any such amendment unless (i) the Company requests the consent of the affected Participant, and (ii) such Participant consents in writing. Notwithstanding the foregoing, subject to the limitations of applicable law, if any, and without the affected Participant's consent, the Board may amend the terms of any one or more Stock Awards if necessary to maintain the qualified status of the Stock Award as an Incentive Stock Option or to bring the Stock Award into compliance with Section 409A of the Code.

(ix) Generally, to exercise such powers and to perform such acts as the Board deems necessary or expedient to promote the best interests of the Company and that are not in conflict with the provisions of the Plan or Stock Awards.

(x) To adopt such procedures and sub-plans as are necessary or appropriate to permit participation in the Plan by Employees, Directors or Consultants who are foreign nationals or employed outside the United States (provided that Board approval shall not be necessary for immaterial modifications to the Plan or any Stock Award Agreement that are required for compliance with the laws of the relevant foreign jurisdiction).

(xi) To effect, at any time and from time to time, with the consent of any adversely affected Participant, (A) the reduction of the exercise price (or strike price) of any outstanding Option or SAR under the Plan, (B) the cancellation of any outstanding Option or SAR under the Plan and the grant in substitution therefore of (1) a new Option or SAR under the Plan or another equity plan of the Company covering the same or a different number of shares of Common Stock, (2) a Restricted Stock Award, (3) a Restricted Stock Unit Award, (4) an Other Stock Award, (5) cash and/or (6) other valuable consideration (as determined by the Board, in its sole discretion), or (C) any other action that is treated as a repricing under generally accepted accounting principles; *provided, however*, that no such reduction or cancellation may be effected if it is determined, in the Company's sole discretion, that such reduction or cancellation would result in any such outstanding Option becoming subject to the requirements of Section 409A of the Code.

(c) Delegation to Committee. The Board may delegate some or all of the administration of the Plan to a Committee or Committees. If administration of the Plan is delegated to a Committee, the Committee shall have, in connection with the administration of the Plan, the powers theretofore possessed by the Board that have been delegated to the Committee, including the power to delegate to a subcommittee of the Committee any of the administrative powers the Committee is authorized to exercise (and references in this Plan to the Board shall thereafter be to the Committee or subcommittee), subject, however, to such resolutions, not inconsistent with the provisions of the Plan, as may be adopted from time to time by the Board. The Board may retain the authority to concurrently administer the Plan with the Committee and may, at any time, revest in the Board some or all of the powers previously delegated.

(d) Delegation to an Officer. The Board may delegate to one or more Officers of the Company the authority to do one or both of the following: (i) designate Officers and Employees of the Company or any of its Subsidiaries to be recipients of Options and Stock Appreciation Rights (and, to the extent permitted by applicable law, other Stock Awards) and the terms thereof, and (ii) determine the number of shares of Common Stock to be subject to such Stock Awards granted to such Officers and Employees; *provided, however,* that the Board resolutions regarding such delegation shall specify the total number of shares of Common Stock that may be subject to the Stock Awards granted by such Officer and that such Officer may not grant a Stock Award to himself or herself. Notwithstanding the foregoing, the Board may not delegate authority to an Officer to determine the Fair Market Value pursuant to Section 13(t) below.

(e) Effect of Board's Decision. All determinations, interpretations and constructions made by the Board in good faith shall not be subject to review by any person and shall be final, binding and conclusive on all persons.

(f) Arbitration. Any dispute or claim concerning any Stock Awards granted (or not granted) or any disputes or claims relating to or arising out of the Plan shall be fully, finally and

exclusively resolved by binding and confidential arbitration conducted pursuant to the rules of Judicial Arbitration and Mediation Services, Inc. **(**"***JAMS***"**)** in the city or county in which the Company's principal offices are then located. The Company shall pay all arbitration fees. In addition to any other relief, the arbitrator may award to the prevailing party recovery of its attorneys' fees and costs. By accepting a Stock Award, Participants and the Company waive their respective rights to have any such disputes or claims tried by a judge or jury.

3. SHARES SUBJECT TO THE PLAN.

(a) Share Reserve. Subject to the provisions of Section 9(a) relating to Capitalization Adjustments, the aggregate number of shares of Common Stock that may be issued pursuant to Stock Awards beginning on the Effective Date shall not exceed 4,458,750 shares (the "***Share Reserve***"). For clarity, the limitation in this Section 3(a) is a limitation in the number of shares of Common Stock that may be issued pursuant to the Plan. Accordingly, this Section 3(a) does not limit the granting of Stock Awards except as provided in Section 7(a).

(b) Reversion of Shares to the Share Reserve. If any shares of Common Stock issued pursuant to a Stock Award are forfeited back to the Company because of the failure to meet a contingency or condition required to vest such shares in the Participant, then the shares which are forfeited shall revert to and again become available for issuance under the Plan. Also, any shares reacquired by the Company pursuant to Section 8(g) or as consideration for the exercise of an Option shall again become available for issuance under the Plan. Furthermore, if a Stock Award or any portion thereof (i) expires or otherwise terminates without all of the shares covered by such Stock Award having been issued, or (ii) is settled in cash (i.e., the Participant receives cash rather than stock), such expiration, termination or settlement shall not reduce (or otherwise offset) the number of shares of Common Stock that may be available for issuance under the Plan. Notwithstanding the provisions of this Section 3(a), any such shares shall not be subsequently issued pursuant to the exercise of Incentive Stock Options.

(c) Incentive Stock Option Limit. Notwithstanding anything to the contrary in this Section 3(c), subject to the provisions of Section 9(a) relating to Capitalization Adjustments, the aggregate maximum number of shares of Common Stock that may be issued pursuant to the exercise of Incentive Stock Options shall be 8,917,500 shares of Common Stock.

(d) Source of Shares. The stock issuable under the Plan shall be shares of authorized but unissued or reacquired Common Stock, including shares repurchased by the Company on the open market or otherwise.

4. ELIGIBILITY.

(a) Eligibility for Specific Stock Awards. Incentive Stock Options may be granted only to employees of the Company or a "parent corporation" or "subsidiary corporation" thereof (as such terms are defined in Sections 424(e) and (f) of the Code). Stock Awards other than Incentive Stock Options may be granted to Employees, Directors and Consultants; *provided, however*, Nonstatutory Stock Options and SARs may not be granted to Employees, Directors and Consultants who are providing Continuous Service only to any "parent" of the Company, as such term is defined in Rule 405, unless the stock underlying such Stock Awards is treated as "service

recipient stock" under Section 409A of the Code because the Stock Awards are granted pursuant to a corporate transaction (such as a spin off transaction) or unless such Stock Awards comply with the distribution requirements of Section 409A of the Code.

(b) Ten Percent Stockholders. A Ten Percent Stockholder shall not be granted an Incentive Stock Option unless the exercise price of such Option is at least one hundred ten percent (110%) of the Fair Market Value on the date of grant and the Option is not exercisable after the expiration of five (5) years from the date of grant.

(c) Consultants. A Consultant shall not be eligible for the grant of a Stock Award if, at the time of grant, either the offer or the sale of the Company's securities to such Consultant is not exempt under Rule 701 because of the nature of the services that the Consultant is providing to the Company, because the Consultant is not a natural person, or because of any other provision of Rule 701, unless the Company determines that such grant need not comply with the requirements of Rule 701 and will satisfy another exemption under the Securities Act as well as comply with the securities laws of all other relevant jurisdictions.

5. PROVISIONS RELATING TO OPTIONS AND STOCK APPRECIATION RIGHTS.

Each Option or SAR shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. All Options shall be separately designated Incentive Stock Options or Nonstatutory Stock Options at the time of grant, and, if certificates are issued, a separate certificate or certificates shall be issued for shares of Common Stock purchased on exercise of each type of Option. If an Option is not specifically designated as an Incentive Stock Option, then the Option shall be a Nonstatutory Stock Option. The provisions of separate Options or SARs need not be identical; *provided, however*, that each Option Agreement or Stock Appreciation Right Agreement shall conform to (through incorporation of provisions hereof by reference in the applicable Stock Award Agreement or otherwise) the substance of each of the following provisions:

(a) Term. Subject to the provisions of Section 4(b) regarding Ten Percent Stockholders, no Option or SAR shall be exercisable after the expiration of ten (10) years from the date of its grant or such shorter period specified in the Stock Award Agreement.

(b) Exercise Price. Subject to the provisions of Section 4(b) regarding Incentive Stock Options granted to Ten Percent Stockholders, the exercise price (or strike price) of each Option or SAR shall be not less than one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the Option or SAR on the date the Option or SAR is granted. Notwithstanding the foregoing, an Option or SAR may be granted with an exercise price (or strike price) lower than one hundred percent (100%) of the Fair Market Value of the Common Stock subject to the Option or SAR if such Option or SAR is granted pursuant to an assumption of or substitution for another option or stock appreciation right pursuant to a Corporate Transaction and in a manner consistent with the provisions of Sections 409A and 424(a) of the Code (whether or not such Stock Awards are Incentive Stock Options). Each SAR will be denominated in shares of Common Stock equivalents.

(c) Consideration for Options. The purchase price of Common Stock acquired pursuant to the exercise of an Option shall be paid, to the extent permitted by applicable law and as determined by the Board in its sole discretion, by any combination of the methods of payment set forth below. The Board shall have the authority to grant Options that do not permit all of the following methods of payment (or otherwise restrict the ability to use certain methods) and to grant Options that require the consent of the Company to utilize a particular method of payment. The permitted methods of payment are as follows:

(i) by cash, check, bank draft or money order payable to the Company;

(ii) pursuant to a program developed under Regulation T as promulgated by the Federal Reserve Board that, prior to the issuance of the stock subject to the Option, results in either the receipt of cash (or check) by the Company or the receipt of irrevocable instructions to pay the aggregate exercise price to the Company from the sales proceeds;

(iii) by delivery to the Company (either by actual delivery or attestation) of shares of Common Stock;

(iv) if the Option is a Nonstatutory Stock Option, by a "net exercise" arrangement pursuant to which the Company will reduce the number of shares of Common Stock issuable upon exercise by the largest whole number of shares with a Fair Market Value that does not exceed the aggregate exercise price; *provided, however,* that the Company shall accept a cash or other payment from the Participant to the extent of any remaining balance of the aggregate exercise price not satisfied by such reduction in the number of whole shares to be issued; *provided, further,* that shares of Common Stock will no longer be subject to an Option and will not be exercisable thereafter to the extent that (A) shares issuable upon exercise are reduced to pay the exercise price pursuant to the "net exercise," (B) shares are delivered to the Participant as a result of such exercise, and (C) shares are withheld to satisfy tax withholding obligations;

(v) according to a deferred payment or similar arrangement with the Optionholder; *provided, however*, that interest shall compound at least annually and shall be charged at the minimum rate of interest necessary to avoid (A) the imputation of interest income to the Company and compensation income to the Optionholder under any applicable provisions of the Code, and (B) the classification of the Option as a liability for financial accounting purposes; or

(vi) in any other form of legal consideration that may be acceptable to the Board.

(d) Exercise and Payment of a SAR. To exercise any outstanding Stock Appreciation Right, the Participant must provide written notice of exercise to the Company in compliance with the provisions of the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right. The appreciation distribution payable on the exercise of a Stock Appreciation Right will be not greater than an amount equal to the excess of (A) the aggregate Fair Market Value (on the date of the exercise of the Stock Appreciation Right) of a number of shares of Common Stock equal to the number of Common Stock equivalents in which the Participant is vested under such Stock Appreciation Right, and with respect to which the Participant is exercising the Stock Appreciation Right on such date, over (B) the strike price that will be determined by the Board at

the time of grant of the Stock Appreciation Right. The appreciation distribution in respect to a Stock Appreciation Right may be paid in Common Stock, in cash, in any combination of the two or in any other form of consideration, as determined by the Board and contained in the Stock Appreciation Right Agreement evidencing such Stock Appreciation Right.

(e) Transferability of Options and SARs. The Board may, in its sole discretion, impose such limitations on the transferability of Options and SARs as the Board shall determine. In the absence of such a determination by the Board to the contrary, the following restrictions on the transferability of Options and SARs shall apply:

(i) Restrictions on Transfer. An Option or SAR shall not be transferable except by will or by the laws of descent and distribution and shall be exercisable during the lifetime of the Participant only by the Participant; *provided, however*, that the Board may, in its sole discretion, permit transfer of the Option or SAR to such extent as permitted by Rule 701 and in a manner consistent with applicable tax and securities laws upon the Participant's request.

(ii) Domestic Relations Orders. Notwithstanding the foregoing, an Option or SAR may be transferred pursuant to a domestic relations order; *provided, however,* that if an Option is an Incentive Stock Option, such Option may be deemed to be a Nonstatutory Stock Option as a result of such transfer.

(iii) Beneficiary Designation. Notwithstanding the foregoing, the Participant may, by delivering written notice to the Company, in a form provided by or otherwise satisfactory to the Company and any broker designated by the Company to effect Option exercises, designate a third party who, in the event of the death of the Participant, shall thereafter be the beneficiary of an Option with the right to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise. In the absence of such a designation, the executor or administrator of the Participant's estate shall be entitled to exercise the Option or SAR and receive the Common Stock or other consideration resulting from such exercise.

(f) Vesting Generally. The total number of shares of Common Stock subject to an Option or SAR may vest and therefore become exercisable in periodic installments that may or may not be equal. The Option or SAR may be subject to such other terms and conditions on the time or times when it may or may not be exercised (which may be based on the satisfaction of performance goals or other criteria) as the Board may deem appropriate. The vesting provisions of individual Options or SARs may vary. The provisions of this Section 5(f) are subject to any Option or SAR provisions governing the minimum number of shares of Common Stock as to which an Option or SAR may be exercised.

(g) Termination of Continuous Service. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, in the event that a Participant's Continuous Service terminates (other than for Cause or upon the Participant's death or Disability), the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Stock Award as of the date of termination of Continuous Service) but only within such period of time ending on the earlier of (i) the date three (3) months following the termination of the Participant's Continuous Service (or such longer or shorter period specified in the Stock Award Agreement, which period shall not be less than

thirty (30) days if necessary to comply with applicable state laws unless such termination is for Cause) or (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the time specified herein or in the Stock Award Agreement (as applicable), the Option or SAR shall terminate.

(h) Extension of Termination Date. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, if the exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause or upon the Participant's death or Disability) would be prohibited at any time solely because the issuance of shares of Common Stock would violate the registration requirements under the Securities Act, then the Option or SAR shall terminate on the earlier of (i) the expiration of a period of three (3) months after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of such registration requirements, or (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. In addition, unless otherwise provided in a Participant's Award Agreement, if the sale of any Common Stock received upon exercise of an Option or SAR following the termination of the Participant's Continuous Service (other than for Cause) would violate the Company's insider trading policy, then the Option or SAR shall terminate on the earlier of (i) the expiration of a period equal to the applicable post-termination exercise period after the termination of the Participant's Continuous Service during which the exercise of the Option or SAR would not be in violation of the Company's insider trading policy, or (ii) the expiration of the term of the Option or SAR as set forth in the applicable Stock Award Agreement.

(i) Disability of Participant. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, in the event that a Participant's Continuous Service terminates as a result of the Participant's Disability, the Participant may exercise his or her Option or SAR (to the extent that the Participant was entitled to exercise such Option or SAR as of the date of termination of Continuous Service), but only within such period of time ending on the earlier of (i) the date twelve (12) months following such termination of Continuous Service (or such longer or shorter period specified in the Stock Award Agreement, which period shall not be less than six (6) months if necessary to comply with applicable state laws), or (ii) the expiration of the term of the Option or SAR as set forth in the Stock Award Agreement. If, after termination of Continuous Service, the Participant does not exercise his or her Option or SAR within the time specified herein or in the Stock Award Agreement (as applicable), the Option or SAR shall terminate.

(j) Death of Participant. Except as otherwise provided in the applicable Stock Award Agreement or other agreement between the Participant and the Company, in the event that (i) a Participant's Continuous Service terminates as a result of the Participant's death, or (ii) the Participant dies within the period (if any) specified in the Stock Award Agreement after the termination of the Participant's Continuous Service for a reason other than death, then the Option or SAR may be exercised (to the extent the Participant was entitled to exercise such Option or SAR as of the date of death) by the Participant's estate, by a person who acquired the right to exercise the Option or SAR by bequest or inheritance or by a person designated to exercise the Option or SAR upon the Participant's death, but only within the period ending on the earlier of (i) the date eighteen (18) months following the date of death (or such longer or shorter period

specified in the Stock Award Agreement, which period shall not be less than six (6) months if necessary to comply with applicable state laws), or (ii) the expiration of the term of such Option or SAR as set forth in the Stock Award Agreement. If, after the Participant's death, the Option or SAR is not exercised within the time specified herein or in the Stock Award Agreement (as applicable), the Option or SAR shall terminate.

(k) Termination for Cause. Except as explicitly provided otherwise in a Participant's Stock Award Agreement, if a Participant's Continuous Service is terminated for Cause, the Option or SAR shall terminate upon the termination date of such Participant's Continuous Service and the Participant shall be prohibited from exercising his or her Option or SAR from and after the time of such termination of Continuous Service.

(l) Non-Exempt Employees. No Option or SAR granted to an Employee who is a non-exempt employee for purposes of the Fair Labor Standards Act of 1938, as amended, shall be first exercisable for any shares of Common Stock until at least six months following the date of grant of the Option or SAR. Notwithstanding the foregoing, consistent with the provisions of the Worker Economic Opportunity Act, in the event of the Participant's death or Disability, upon a Corporate Transaction or a Change in Control in which the vesting of such Options or SARs accelerates, or upon the Participant's retirement (as such term may be defined in the Participant's Stock Award Agreement or in another applicable agreement or in accordance with the Company's then current employment policies and guidelines) any such vested Options and SARs may be exercised earlier than six months following the date of grant. The foregoing provision is intended to operate so that any income derived by a non-exempt employee in connection with the exercise or vesting of an Option or SAR will be exempt from his or her regular rate of pay.

(m) Early Exercise of Options. An Option may, but need not, include a provision whereby the Optionholder may elect at any time before the Optionholder's Continuous Service terminates to exercise the Option as to any part or all of the shares of Common Stock subject to the Option prior to the full vesting of the Option. Subject to the "Repurchase Limitation" in Section 8(l), any unvested shares of Common Stock so purchased may be subject to a repurchase right in favor of the Company or to any other restriction the Board determines to be appropriate. Provided that the "Repurchase Limitation" in Section 8(l) is not violated, the Company shall not be required to exercise its repurchase right until at least six (6) months (or such longer or shorter period of time required to avoid classification of the Option as a liability for financial accounting purposes) have elapsed following exercise of the Option unless the Board otherwise specifically provides in the Option Agreement.

(n) Right of Repurchase. Subject to the "Repurchase Limitation" in Section 8(l), the Option or SAR may include a provision whereby the Company may elect to repurchase all or any part of the vested shares of Common Stock acquired by the Participant pursuant to the exercise of the Option or SAR.

(o) Right of First Refusal. The Option or SAR may include a provision whereby the Company may elect to exercise a right of first refusal following receipt of notice from the Participant of the intent to transfer all or any part of the shares of Common Stock received upon the exercise of the Option or SAR. Such right of first refusal shall be subject to the "Repurchase Limitation" in Section 8(l). Except as expressly provided in this Section 5(o) or in

the Stock Award Agreement, such right of first refusal shall otherwise comply with any applicable provisions of the Bylaws of the Company.

6. PROVISIONS OF RESTRICTED STOCK AWARDS, RESTRICTED STOCK UNITS AND OTHER STOCK AWARDS.

(a) Restricted Stock Awards. Each Restricted Stock Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. To the extent consistent with the Company's Bylaws, at the Board's election, shares of Common Stock may be (x) held in book entry form subject to the Company's instructions until any restrictions relating to the Restricted Stock Award lapse; or (y) evidenced by a certificate, which certificate shall be held in such form and manner as determined by the Board. The terms and conditions of Restricted Stock Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Award Agreements need not be identical; *provided, however*, that each Restricted Stock Award Agreement shall conform to (through incorporation of the provisions hereof by reference in the agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. A Restricted Stock Award may be awarded in consideration for (A) cash or cash equivalents, (B) past or future services actually or to be rendered to the Company or an Affiliate, or (C) any other form of legal consideration that may be acceptable to the Board in its sole discretion and permissible under applicable law.

(ii) Vesting. Subject to the "Repurchase Limitation" in Section 8(l), shares of Common Stock awarded under the Restricted Stock Award Agreement may be subject to forfeiture to the Company in accordance with a vesting schedule to be determined by the Board.

(iii) Termination of Participant's Continuous Service. If a Participant's Continuous Service terminates, the Company may receive through a forfeiture condition or a repurchase right, any or all of the shares of Common Stock held by the Participant that have not vested as of the date of termination of Continuous Service under the terms of the Restricted Stock Award Agreement.

(iv) Transferability. Rights to acquire shares of Common Stock under the Restricted Stock Award Agreement shall be transferable by the Participant only upon such terms and conditions as are set forth in the Restricted Stock Award Agreement, as the Board shall determine in its sole discretion, so long as Common Stock awarded under the Restricted Stock Award Agreement remains subject to the terms of the Restricted Stock Award Agreement.

(v) Dividends. A Restricted Stock Award Agreement may provide that any dividends paid on Restricted Stock will be subject to the same vesting and forfeiture restrictions as apply to the shares subject to the Restricted Stock Award to which they relate.

(b) Restricted Stock Unit Awards. Each Restricted Stock Unit Award Agreement shall be in such form and shall contain such terms and conditions as the Board shall deem appropriate. The terms and conditions of Restricted Stock Unit Award Agreements may change from time to time, and the terms and conditions of separate Restricted Stock Unit Award Agreements need not be identical, *provided, however,* that each Restricted Stock Unit Award

Agreement shall conform to (through incorporation of the provisions hereof by reference in the Agreement or otherwise) the substance of each of the following provisions:

(i) Consideration. At the time of grant of a Restricted Stock Unit Award, the Board will determine the consideration, if any, to be paid by the Participant upon delivery of each share of Common Stock subject to the Restricted Stock Unit Award. The consideration to be paid (if any) by the Participant for each share of Common Stock subject to a Restricted Stock Unit Award may be paid in any form of legal consideration that may be acceptable to the Board in its sole discretion and permissible under applicable law.

(ii) Vesting. At the time of the grant of a Restricted Stock Unit Award, the Board may impose such restrictions or conditions to the vesting of the Restricted Stock Unit Award as it, in its sole discretion, deems appropriate.

(iii) Payment. A Restricted Stock Unit Award may be settled by the delivery of shares of Common Stock, their cash equivalent, any combination thereof or in any other form of consideration, as determined by the Board and contained in the Restricted Stock Unit Award Agreement.

(iv) Additional Restrictions. At the time of the grant of a Restricted Stock Unit Award, the Board, as it deems appropriate, may impose such restrictions or conditions that delay the delivery of the shares of Common Stock (or their cash equivalent) subject to a Restricted Stock Unit Award to a time after the vesting of such Restricted Stock Unit Award.

(v) Dividend Equivalents. Dividend equivalents may be credited in respect of shares of Common Stock covered by a Restricted Stock Unit Award, as determined by the Board and contained in the Restricted Stock Unit Award Agreement. At the sole discretion of the Board, such dividend equivalents may be converted into additional shares of Common Stock covered by the Restricted Stock Unit Award in such manner as determined by the Board. Any additional shares covered by the Restricted Stock Unit Award credited by reason of such dividend equivalents will be subject to all the terms and conditions of the underlying Restricted Stock Unit Award Agreement to which they relate.

(vi) Termination of Participant's Continuous Service. Except as otherwise provided in the applicable Restricted Stock Unit Award Agreement, such portion of the Restricted Stock Unit Award that has not vested will be forfeited upon the Participant's termination of Continuous Service.

(vii) Compliance with Section 409A of the Code. Notwithstanding anything to the contrary set forth herein, any Restricted Stock Unit Award granted under the Plan that is not exempt from the requirements of Section 409A of the Code shall contain such provisions so that such Restricted Stock Unit Award will comply with the requirements of Section 409A of the Code. Such restrictions, if any, shall be determined by the Board and contained in the Restricted Stock Unit Award Agreement evidencing such Restricted Stock Unit Award. For example, such restrictions may include, without limitation, a requirement that any Common Stock that is to be issued in a year following the year in which the Restricted Stock Unit Award vests must be issued in accordance with a fixed pre-determined schedule.

(c) Other Stock Awards. Other forms of Stock Awards valued in whole or in part by reference to, or otherwise based on, Common Stock, including the appreciation in value thereof (e.g., options or stock rights with an exercise price or strike price less than 100% of the Fair Market Value of the Common Stock at the time of grant) may be granted either alone or in addition to Stock Awards provided for under Section 5 and the preceding provisions of this Section 6. Subject to the provisions of the Plan, the Board shall have sole and complete authority to determine the persons to whom and the time or times at which such Other Stock Awards will be granted, the number of shares of Common Stock (or the cash equivalent thereof) to be granted pursuant to such Other Stock Awards and all other terms and conditions of such Other Stock Awards.

7. COVENANTS OF THE COMPANY.

(a) Availability of Shares. During the terms of the Stock Awards, the Company shall keep available at all times the number of shares of Common Stock required to satisfy such Stock Awards.

(b) Securities Law Compliance. The Company shall seek to obtain from each regulatory commission or agency having jurisdiction over the Plan such authority as may be required to grant Stock Awards and to issue and sell shares of Common Stock upon exercise of the Stock Awards; *provided, however,* that this undertaking shall not require the Company to register under the Securities Act the Plan, any Stock Award or any Common Stock issued or issuable pursuant to any such Stock Award. If, after reasonable efforts, the Company is unable to obtain from any such regulatory commission or agency the authority that counsel for the Company deems necessary for the lawful issuance and sale of Common Stock under the Plan, the Company shall be relieved from any liability for failure to issue and sell Common Stock upon exercise of such Stock Awards unless and until such authority is obtained. A Participant shall not be eligible for the grant of a Stock Award or the subsequent issuance of Common Stock pursuant to the Stock Award if such grant or issuance would be in violation of any applicable securities law.

(c) No Obligation to Notify. The Company shall have no duty or obligation to any Participant to advise such holder as to the time or manner of exercising such Stock Award. Furthermore, the Company shall have no duty or obligation to warn or otherwise advise such holder of a pending termination or expiration of a Stock Award or a possible period in which the Stock Award may not be exercised. The Company has no duty or obligation to minimize the tax consequences of a Stock Award to the holder of such Stock Award.

8. MISCELLANEOUS.

(a) Use of Proceeds from Sales of Common Stock. Proceeds from the sale of shares of Common Stock pursuant to Stock Awards shall constitute general funds of the Company.

(b) Corporate Action Constituting Grant of Stock Awards. Corporate action constituting a grant by the Company of a Stock Award to any Participant shall be deemed completed as of the date of such corporate action, unless otherwise determined by the Board, regardless of when the instrument, certificate, or letter evidencing the Stock Award is communicated to, or actually received or accepted by, the Participant.

(c) Stockholder Rights. No Participant shall be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Common Stock subject to such Stock Award unless and until (i) such Participant has satisfied all requirements for exercise of the Stock Award, or the issuance of shares of Common Stock thereunder, pursuant to its terms, and (ii) the issuance of the Common Stock pursuant to the Stock Award has been entered into the books and records of the Company.

(d) No Employment or Other Service Rights. Nothing in the Plan, any Stock Award Agreement or any other instrument executed thereunder or in connection with any Stock Award granted pursuant thereto shall confer upon any Participant any right to continue to serve the Company or an Affiliate in the capacity in effect at the time the Stock Award was granted or shall affect the right of the Company or an Affiliate to terminate (i) the employment of an Employee with or without notice and with or without cause, (ii) the service of a Consultant pursuant to the terms of such Consultant's agreement with the Company or an Affiliate, or (iii) the service of a Director pursuant to the Bylaws of the Company or an Affiliate, and any applicable provisions of the corporate law of the state in which the Company or the Affiliate is incorporated, as the case may be.

(e) Incentive Stock Option $100,000 Limitation. To the extent that the aggregate Fair Market Value (determined at the time of grant) of Common Stock with respect to which Incentive Stock Options are exercisable for the first time by any Optionholder during any calendar year (under all plans of the Company and any Affiliates) exceeds one hundred thousand dollars ($100,000), the Options or portions thereof that exceed such limit (according to the order in which they were granted) shall be treated as Nonstatutory Stock Options, notwithstanding any contrary provision of the applicable Option Agreement(s).

(f) Investment Assurances. The Company may require a Participant, as a condition of exercising or acquiring Common Stock under any Stock Award, (i) to give written assurances satisfactory to the Company as to the Participant's knowledge and experience in financial and business matters and/or to employ a purchaser representative reasonably satisfactory to the Company who is knowledgeable and experienced in financial and business matters and that he or she is capable of evaluating, alone or together with the purchaser representative, the merits and risks of exercising the Stock Award; and (ii) to give written assurances satisfactory to the Company stating that the Participant is acquiring Common Stock subject to the Stock Award for the Participant's own account and not with any present intention of selling or otherwise distributing the Common Stock. The foregoing requirements, and any assurances given pursuant to such requirements, shall be inoperative if (x) the issuance of the shares upon the exercise or acquisition of Common Stock under the Stock Award has been registered under a then currently effective registration statement under the Securities Act, or (y) as to any particular requirement, a determination is made by counsel for the Company that such requirement need not be met in the circumstances under the then applicable securities laws. The Company may, upon advice of counsel to the Company, place legends on stock certificates issued under the Plan as such counsel deems necessary or appropriate in order to comply with applicable securities laws, including, but not limited to, legends restricting the transfer of the Common Stock.

(g) Withholding Obligations. Unless prohibited by the terms of a Stock Award Agreement, the Company may, in its sole discretion, satisfy any federal, state or local tax

withholding obligation relating to a Stock Award by any of the following means or by a combination of such means: (i) causing the Participant to tender a cash payment; (ii) withholding shares of Common Stock from the shares of Common Stock issued or otherwise issuable to the Participant in connection with the Stock Award; *provided, however*, that no shares of Common Stock are withheld with a value exceeding the minimum amount of tax required to be withheld by law (or such lesser amount as may be necessary to avoid classification of the Stock Award as a liability for financial accounting purposes); (iii) withholding payment from any amounts otherwise payable to the Participant; (iv) withholding cash from a Stock Award settled in cash; or (v) by such other method as may be set forth in the Stock Award Agreement.

(h) Electronic Delivery. Any reference herein to a "written" agreement or document shall include any agreement or document delivered electronically or posted on the Company's intranet.

(i) Deferrals. To the extent permitted by applicable law, the Board, in its sole discretion, may determine that the delivery of Common Stock or the payment of cash, upon the exercise, vesting or settlement of all or a portion of any Stock Award may be deferred and may establish programs and procedures for deferral elections to be made by Participants. Deferrals by Participants will be made in accordance with Section 409A of the Code. Consistent with Section 409A of the Code, the Board may provide for distributions while a Participant is still an employee or otherwise providing services to the Company. The Board is authorized to make deferrals of Stock Awards and determine when, and in what annual percentages, Participants may receive payments, including lump sum payments, following the Participant's termination of Continuous Service, and implement such other terms and conditions consistent with the provisions of the Plan and in accordance with applicable law.

(j) Compliance with Section 409A. To the extent that the Board determines that any Stock Award granted hereunder is subject to Section 409A of the Code, the Stock Award Agreement evidencing such Stock Award shall incorporate the terms and conditions necessary to avoid the consequences specified in Section 409A(a)(1) of the Code. To the extent applicable, the Plan and Stock Award Agreements shall be interpreted in accordance with Section 409A of the Code.

(k) Compliance with Exemption Provided by Rule 12h-1(f). If at the end of the Company's most recently completed fiscal year: (i) the aggregate of the number of persons who hold outstanding compensatory employee stock options to purchase shares of Common Stock granted pursuant to the Plan or otherwise (such persons, "***Holders of Options***") equals or exceeds five hundred (500), and (ii) the Company's assets exceed $10 million, then the following restrictions shall apply during any period during which the Company does not have a class of its securities registered under Section 12 of the Exchange Act and is not required to file reports under Section 15(d) of the Exchange Act: (A) the Options and, prior to exercise, the shares of Common Stock to be issued on exercise of the Options may not be transferred until the Company is no longer relying on the exemption provided by Rule 12h-1(f) promulgated under the Exchange Act ("***Rule 12h-1(f)***"), except: (1) as permitted by Rule 701(c) promulgated under the Securities Act, (2) to a guardian upon the disability of the Holder of Options, or (3) to an executor upon the death of the Holder of Options (collectively, the "***Permitted Transferees***"); provided, however, the following transfers are permitted: (i) transfers by the Holder of Options to the Company, and (ii) transfers in

connection with a change of control or other acquisition involving the Company, if following such transaction, the Options no longer remain outstanding and the Company is no longer relying on the exemption provided by Rule 12h-1(f); provided further, that any Permitted Transferees may not further transfer the Options; (B) except as otherwise provided in (A) above, the Options and shares of Common Stock to be issued on exercise of the Options are restricted as to any pledge, hypothecation, or other transfer, including any short position, any "put equivalent position" as defined by Rule 16a-1(h) promulgated under the Exchange Act, or any "call equivalent position" as defined by Rule 16a-1(b) promulgated under the Exchange Act by the Holder of Options prior to exercise of an Option until the Company is no longer relying on the exemption provided by Rule 12h-1(f); and (C) at any time that the Company is relying on the exemption provided by Rule 12h-1(f), the Company shall deliver to Holders of Options (whether by physical or electronic delivery or written notice of the availability of the information on an internet site) the information required by Rule 701(e)(3), (4), and (5) promulgated under the Securities Act every six (6) months, including financial statements that are not more than one hundred eighty (180) days old; provided, however, that the Company may condition the delivery of such information upon the Holder of Options' agreement to maintain its confidentiality.

(l) Repurchase Limitation. The terms of any repurchase right shall be specified in the Stock Award Agreement. The repurchase price for vested shares of Common Stock shall be the Fair Market Value of the shares of Common Stock on the date of repurchase. The repurchase price for unvested shares of Common Stock shall be the lower of (i) the Fair Market Value of the shares of Common Stock on the date of repurchase or (ii) their original purchase price. However, the Company shall not exercise its repurchase right until at least six (6) months (or such longer or shorter period of time necessary to avoid classification of the Stock Award as a liability for financial accounting purposes) have elapsed following delivery of shares of Common Stock subject to the Stock Award, unless otherwise specifically provided by the Board.

9. ADJUSTMENTS UPON CHANGES IN COMMON STOCK; OTHER CORPORATE EVENTS.

(a) Capitalization Adjustments. In the event of a Capitalization Adjustment, the Board shall appropriately and proportionately adjust: (i) the class(es) and maximum number of securities subject to the Plan pursuant to Section 3, (ii) the class(es) and maximum number of securities that may be issued pursuant to the exercise of Incentive Stock Options pursuant to Section 3(c), and (iii) the class(es) and number of securities and price per share of stock subject to outstanding Stock Awards. The Board shall make such adjustments, and its determination shall be final, binding and conclusive.

(b) Dissolution or Liquidation. Except as otherwise provided in the Stock Award Agreement, in the event of a dissolution or liquidation of the Company, all outstanding Stock Awards (other than Stock Awards consisting of vested and outstanding shares of Common Stock not subject to a forfeiture condition or the Company's right of repurchase) shall terminate immediately prior to the completion of such dissolution or liquidation, and the shares of Common Stock subject to the Company's repurchase rights or subject to a forfeiture condition may be repurchased or reacquired by the Company notwithstanding the fact that the holder of such Stock Award is providing Continuous Service, *provided, however,* that the Board may, in its sole discretion, cause some or all Stock Awards to become fully vested, exercisable and/or no longer

subject to repurchase or forfeiture (to the extent such Stock Awards have not previously expired or terminated) before the dissolution or liquidation is completed but contingent on its completion.

(c) Corporate Transaction. The following provisions shall apply to Stock Awards in the event of a Corporate Transaction unless otherwise provided in the instrument evidencing the Stock Award or any other written agreement between the Company or any Affiliate and the holder of the Stock Award or unless otherwise expressly provided by the Board at the time of grant of a Stock Award. Except as otherwise stated in the Stock Award Agreement, in the event of a Corporate Transaction, then, notwithstanding any other provision of the Plan, the Board shall take one or more of the following actions with respect to Stock Awards, contingent upon the closing or completion of the Corporate Transaction:

(i) arrange for the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company) to assume or continue the Stock Award or to substitute a similar stock award for the Stock Award (including, but not limited to, an award to acquire the same consideration paid to the stockholders of the Company pursuant to the Corporate Transaction);

(ii) arrange for the assignment of any reacquisition or repurchase rights held by the Company in respect of Common Stock issued pursuant to the Stock Award to the surviving corporation or acquiring corporation (or the surviving or acquiring corporation's parent company);

(iii) accelerate the vesting, in whole or in part, of the Stock Award (and, if applicable, the time at which the Stock Award may be exercised) to a date prior to the effective time of such Corporate Transaction as the Board shall determine (or, if the Board shall not determine such a date, to the date that is five (5) days prior to the effective date of the Corporate Transaction), with such Stock Award terminating if not exercised (if applicable) at or prior to the effective time of the Corporate Transaction;

(iv) arrange for the lapse of any reacquisition or repurchase rights held by the Company with respect to the Stock Award;

(v) cancel or arrange for the cancellation of the Stock Award, to the extent not vested or not exercised prior to the effective time of the Corporate Transaction, in exchange for such cash consideration, if any, as the Board, in its sole discretion, may consider appropriate; and

(vi) make a payment, in such form as may be determined by the Board equal to the excess, if any, of (A) the value of the property the holder of the Stock Award would have received upon the exercise of the Stock Award, over (B) any exercise price payable by such holder in connection with such exercise.

The Board need not take the same action with respect to all Stock Awards or with respect to all Participants.

(d) Change in Control. A Stock Award may be subject to additional acceleration of vesting and exercisability upon or after a Change in Control as may be provided in the Stock Award Agreement for such Stock Award or as may be provided in any other written agreement between

the Company or any Affiliate and the Participant, but in the absence of such provision, no such acceleration shall occur.

10. TERMINATION OR SUSPENSION OF THE PLAN.

(a) Plan Term. The Board may suspend or terminate the Plan at any time. Unless sooner terminated by the Board pursuant to Section 2, the Plan shall terminate upon the later of (i) February 7, 2031, or (ii) ten (10) years after the date when the Board approved the most recent increase in the number of shares reserved under the Plan. No Stock Awards may be granted under the Plan while the Plan is suspended or after it is terminated.

(b) No Impairment of Rights. Suspension or termination of the Plan shall not impair rights and obligations under any Stock Award granted while the Plan is in effect except with the written consent of the affected Participant.

11. EFFECTIVE DATE OF PLAN.

This Plan shall become effective on the Effective Date.

12. CHOICE OF LAW.

The law of the State of California shall govern all questions concerning the construction, validity and interpretation of this Plan, without regard to that state's conflict of laws rules.

13. DEFINITIONS. As used in the Plan, the following definitions shall apply to the capitalized terms indicated below:

(a) "***Affiliate***" means, at the time of determination, any "parent" or "majority-owned subsidiary" of the Company, as such terms are defined in Rule 405. The Board shall have the authority to determine the time or times at which "parent" or "majority-owned subsidiary" status is determined within the foregoing definition.

(b) "***Board***" means the Board of Directors of the Company.

(c) "***Capitalization Adjustment***" means any change that is made in, or other events that occur with respect to, the Common Stock subject to the Plan or subject to any Stock Award after the Effective Date without the receipt of consideration by the Company (through merger, consolidation, reorganization, recapitalization, reincorporation, stock dividend, dividend in property other than cash, large nonrecurring cash dividend, stock split, liquidating dividend, combination of shares, exchange of shares, change in corporate structure, or any similar equity restructuring transaction, as that term is used in Statement of Financial Accounting Standards No. 123 (revised). Notwithstanding the foregoing, the conversion of any convertible securities of the Company shall not be treated as a Capitalization Adjustment.

(d) "***Cause***" shall have the meaning ascribed to such term in any written agreement between the Participant and the Company defining such term and, in the absence of such agreement, such term means with respect to a Participant, the occurrence of any of the following events: (i) such Participant's commission of any felony or any crime involving fraud, dishonesty

or moral turpitude under the laws of the United States or any state thereof; (ii) such Participant's attempted commission of, or participation in, a fraud or material act of dishonesty against the Company; (iii) such Participant's intentional, material violation of any contract or agreement between the Participant and the Company or of any statutory duty owed to the Company; (iv) such Participant's repeated and willful failure to satisfactorily perform such Participant's job duties after 30 days written notice of such deficiency and an opportunity to cure (of at least 15 business days); (v) such Participant's engaging or participating in any activity which is directly competitive with or injurious to the Company or which violates any material provisions of such Participant's Proprietary Information and Inventions Agreement with the Company (if applicable) which remains uncured after 30 days written notice thereof; or (vi) such Participant's gross misconduct. The determination that a termination of the Participant's Continuous Service is either for Cause or without Cause shall be made by the Company in its sole discretion. Any determination by the Company that the Continuous Service of a Participant was terminated with or without Cause for the purposes of outstanding Stock Awards held by such Participant shall have no effect upon any determination of the rights or obligations of the Company or such Participant for any other purpose.

(e) "***Change in Control***" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) any Exchange Act Person becomes the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company's then outstanding securities other than by virtue of a merger, consolidation or similar transaction. Notwithstanding the foregoing, a Change in Control shall not be deemed to occur (A) on account of the acquisition of securities of the Company directly from the Company, (B) on account of the acquisition of securities of the Company by an investor, any affiliate thereof or any other Exchange Act Person that acquires the Company's securities in a transaction or series of related transactions the primary purpose of which is to obtain financing for the Company through the issuance of equity securities or (C) solely because the level of Ownership held by any Exchange Act Person (the "*Subject Person*") exceeds the designated percentage threshold of the outstanding voting securities as a result of a repurchase or other acquisition of voting securities by the Company reducing the number of shares outstanding, provided that if a Change in Control would occur (but for the operation of this sentence) as a result of the acquisition of voting securities by the Company, and after such share acquisition, the Subject Person becomes the Owner of any additional voting securities that, assuming the repurchase or other acquisition had not occurred, increases the percentage of the then outstanding voting securities Owned by the Subject Person over the designated percentage threshold, then a Change in Control shall be deemed to occur;

(ii) there is consummated a merger, consolidation or similar transaction involving (directly or indirectly) the Company and, immediately after the consummation of such merger, consolidation or similar transaction, the stockholders of the Company immediately prior thereto do not Own, directly or indirectly, either (A) outstanding voting securities representing more than fifty percent (50%) of the combined outstanding voting power of the surviving Entity in such merger, consolidation or similar transaction or (B) more than fifty percent (50%) of the combined outstanding voting power of the parent of the surviving Entity in such merger, consolidation or similar transaction, in each case in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such transaction;

(iii) the stockholders of the Company approve or the Board approves a plan of complete dissolution or liquidation of the Company, or a complete dissolution or liquidation of the Company shall otherwise occur, except for a liquidation into a parent corporation; or

(iv) there is consummated a sale, lease, exclusive license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries, other than a sale, lease, license or other disposition of all or substantially all of the consolidated assets of the Company and its Subsidiaries to an Entity, more than fifty percent (50%) of the combined voting power of the voting securities of which are Owned by stockholders of the Company in substantially the same proportions as their Ownership of the outstanding voting securities of the Company immediately prior to such sale, lease, license or other disposition.

Notwithstanding the foregoing definition or any other provision of this Plan, (A) the term Change in Control shall not include a sale of assets, merger or other transaction effected exclusively for the purpose of changing the domicile of the Company, and (B) the definition of Change in Control (or any analogous term) in an individual written agreement between the Company or any Affiliate and the Participant shall supersede the foregoing definition with respect to Stock Awards subject to such agreement; *provided, however,* that if no definition of Change in Control or any analogous term is set forth in such an individual written agreement, the foregoing definition shall apply.

(f) "***Code***" means the Internal Revenue Code of 1986, as amended, including any applicable regulations and guidance thereunder.

(g) "***Committee***" means a committee of one (1) or more Directors to whom authority has been delegated by the Board in accordance with Section 2(c).

(h) "***Common Stock***" means the Class A Common Stock of the Company.

(i) "***Company***" means Pipeline Therapeutics, Inc., a Delaware corporation.

(j) "***Consultant***" means any person, including an advisor, who (i) provides consulting or advisory services to the Company or to a parent or subsidiary of the Company either (a) directly, in an individual capacity, or (b) indirectly, through an entity of which such person is an employee, consultant, partner or member and which entity provides to the Company or to a parent or subsidiary of the Company consulting services involving such individual, or (ii) serving as a member of the board of directors of an Affiliate and is compensated for such services. However, service solely as a Director, or payment of a fee for such service, shall not cause a Director to be considered a "Consultant" for purposes of the Plan.

(k) "***Continuous Service***" means that the Participant's service with the Company or an Affiliate, whether as an Employee, Director or Consultant, is not interrupted or terminated. A change in the capacity in which the Participant renders service to the Company or an Affiliate as an Employee, Director, or Consultant or a change in the Entity for which the Participant renders such service, provided that there is no interruption or termination of the Participant's service with the Company or an Affiliate, shall not terminate a Participant's Continuous Service; *provided, however*, if the Entity for which a Participant is rendering service ceases to qualify as an Affiliate, as determined by the Board in its sole discretion, such Participant's Continuous Service shall be

considered to have terminated on the date such Entity ceases to qualify as an Affiliate. For example, a change in status from an employee of the Company to a consultant of an Affiliate or to a Director shall not constitute an interruption of Continuous Service. To the extent permitted by law, the Board or the chief executive officer of the Company, in that party's sole discretion, may determine whether Continuous Service shall be considered interrupted in the case of (i) any leave of absence approved by the Board or chief executive officer, including sick leave, military leave or any other personal leave, or (ii) transfers between the Company, an Affiliate, or their successors. Notwithstanding the foregoing, a leave of absence shall be treated as Continuous Service for purposes of vesting in a Stock Award only to such extent as may be provided in the Company's leave of absence policy, in the written terms of any leave of absence agreement or policy applicable to the Participant, or as otherwise required by law.

(l) "***Corporate Transaction***" means the occurrence, in a single transaction or in a series of related transactions, of any one or more of the following events:

(i) the consummation of a sale or other disposition of all or substantially all, as determined by the Board in its sole discretion, of the consolidated assets of the Company and its Subsidiaries;

(ii) the consummation of a sale or other disposition of at least ninety percent (90%) of the outstanding securities of the Company;

(iii) the consummation of a merger, consolidation or similar transaction following which the Company is not the surviving corporation; or

(iv) the consummation of a merger, consolidation or similar transaction following which the Company is the surviving corporation but the shares of Common Stock outstanding immediately preceding the merger, consolidation or similar transaction are converted or exchanged by virtue of the merger, consolidation or similar transaction into other property, whether in the form of securities, cash or otherwise.

(m) "***Director***" means a member of the Board.

(n) "***Disability***" means the inability of a Participant to engage in any substantially gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than twelve (12) months as provided in Sections 22(e)(3) and 409A(a)(2)(c)(i) of the Code and shall be determined by the Board on the basis of such medical evidence as the Board deems warranted under the circumstances.

(o) "***Effective Date***" means the effective date of this Plan, which is the earlier of (i) the date that this Plan is first approved by the Company's stockholders, or (ii) the date this Plan is adopted by the Board.

(p) "***Employee***" means any person employed by the Company or an Affiliate. However, service solely as a Director, or payment of a fee for such services, shall not cause a Director to be considered an "Employee" for purposes of the Plan.

(q) "***Entity***" means a corporation, partnership, limited liability company or other entity.

(r) "***Exchange Act***" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

(s) "***Exchange Act Person***" means any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act), except that "Exchange Act Person" shall not include (i) the Company or any Subsidiary of the Company, (ii) any employee benefit plan of the Company or any Subsidiary of the Company or any trustee or other fiduciary holding securities under an employee benefit plan of the Company or any Subsidiary of the Company, (iii) an underwriter temporarily holding securities pursuant to a registered public offering of such securities, (iv) an Entity Owned, directly or indirectly, by the stockholders of the Company in substantially the same proportions as their Ownership of stock of the Company; or (v) any natural person, Entity or "group" (within the meaning of Section 13(d) or 14(d) of the Exchange Act) that, as of the Effective Date, is the Owner, directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the combined voting power of the Company's then outstanding securities.

(t) "***Fair Market Value***" means, as of any date, the value of the Common Stock determined by the Board in compliance with Section 409A of the Code or, in the case of an Incentive Stock Option, in compliance with Section 422 of the Code.

(u) "***Incentive Stock Option***" means an option granted pursuant to Section 5 of the Plan that is intended to be, and qualifies as, an "incentive stock option" within the meaning of Section 422 of the Code and the regulations promulgated thereunder.

(v) "***Nonstatutory Stock Option***" means an option granted pursuant to Section 5 of the Plan that does not qualify as an Incentive Stock Option.

(w) "***Officer***" means any person designated by the Company as an officer.

(x) "***Option***" means an Incentive Stock Option or a Nonstatutory Stock Option to purchase shares of Common Stock granted pursuant to the Plan.

(y) "***Option Agreement***" means a written agreement between the Company and an Optionholder evidencing the terms and conditions of an Option grant. Each Option Agreement shall be subject to the terms and conditions of the Plan.

(z) "***Optionholder***" means a person to whom an Option is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Option.

(aa) "***Other Stock Award***" means an award based in whole or in part by reference to the Common Stock which is granted pursuant to the terms and conditions of Section 6(c).

(bb) "***Other Stock Award Agreement***" means a written agreement between the Company and a holder of an Other Stock Award evidencing the terms and conditions of an Other Stock Award grant. Each Other Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(cc) "***Own***," "***Owned***," "***Owner***," "***Ownership***" A person or Entity shall be deemed to "Own," to have "Owned," to be the "Owner" of, or to have acquired "Ownership" of securities if such person or Entity, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise, has or shares voting power, which includes the power to vote or to direct the voting, with respect to such securities.

(dd) "***Participant***" means a person to whom a Stock Award is granted pursuant to the Plan or, if applicable, such other person who holds an outstanding Stock Award.

(ee) "***Plan***" means this Pipeline Therapeutics, Inc. 2012 Equity Incentive Plan.

(ff) "***Restricted Stock Award***" means an award of shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(a).

(gg) "***Restricted Stock Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Award evidencing the terms and conditions of a Restricted Stock Award grant. Each Restricted Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(hh) "***Restricted Stock Unit Award***" means a right to receive shares of Common Stock which is granted pursuant to the terms and conditions of Section 6(b).

(ii) "***Restricted Stock Unit Award Agreement***" means a written agreement between the Company and a holder of a Restricted Stock Unit Award evidencing the terms and conditions of a Restricted Stock Unit Award grant. Each Restricted Stock Unit Award Agreement shall be subject to the terms and conditions of the Plan.

(jj) "***Rule 405***" means Rule 405 promulgated under the Securities Act.

(kk) "***Rule 701***" means Rule 701 promulgated under the Securities Act.

(ll) "***Securities Act***" means the Securities Act of 1933, as amended.

(mm) "***Stock Appreciation Right***" or "***SAR***" means a right to receive the appreciation on Common Stock that is granted pursuant to the terms and conditions of Section 5.

(nn) "***Stock Appreciation Right Agreement***" means a written agreement between the Company and a holder of a Stock Appreciation Right evidencing the terms and conditions of a Stock Appreciation Right grant. Each Stock Appreciation Right Agreement shall be subject to the terms and conditions of the Plan.

(oo) "***Stock Award***" means any right to receive Common Stock granted under the Plan, including an Incentive Stock Option, a Nonstatutory Stock Option, a Restricted Stock Award, a Restricted Stock Unit Award, a Stock Appreciation Right or any Other Stock Award.

(pp) "***Stock Award Agreement***" means a written agreement between the Company and a Participant evidencing the terms and conditions of a Stock Award grant. Each Stock Award Agreement shall be subject to the terms and conditions of the Plan.

(qq) "***Subsidiary***" means, with respect to the Company, (i) any corporation of which more than fifty percent (50%) of the outstanding capital stock having ordinary voting power to elect a majority of the board of directors of such corporation (irrespective of whether, at the time, stock of any other class or classes of such corporation shall have or might have voting power by reason of the happening of any contingency) is at the time, directly or indirectly, Owned by the Company, and (ii) any partnership, limited liability company or other entity in which the Company has a direct or indirect interest (whether in the form of voting or participation in profits or capital contribution) of more than fifty percent (50%) .

(rr) "***Ten Percent Stockholder***" means a person who Owns (or is deemed to Own pursuant to Section 424(d) of the Code) stock possessing more than ten percent (10%) of the total combined voting power of all classes of stock of the Company or any Affiliate.

PIPELINE THERAPEUTICS, INC. 2012 EQUITY INCENTIVE PLAN

NOTICE OF STOCK OPTION GRANT (INSTALLMENT EXERCISE)

The Optionee has been granted the following option to purchase shares of the Class A Common Stock of Pipeline Therapeutics, Inc.:

Name of Optionee:	_____
Total Number of Shares:	_____
Type of Option:	_____ Incentive Stock Option (ISO)
	_____ Nonstatutory Stock Option (NSO)
Exercise Price per Share:	$_____
Date of Grant:	_____
Date Exercisable:	_____
Vesting Commencement Date:	_____
Expiration Date:	_____. This option expires earlier if the Optionee's Service terminates earlier, as provided in Section 6 of the Stock Option Agreement, or if the Company engages in certain corporate transactions, as provided in Section 9(c) of the Plan.

By signing below, the Optionee and the Company agree that this option is granted under, and governed by the terms and conditions of, the 2012 Equity Incentive Plan and the Stock Option Agreement. Both of these documents are attached to, and made a part of, this Notice of Stock Option Grant. **Section 13 of the Stock Option Agreement includes important acknowledgements of the Optionee**.

OPTIONEE:

_____

PIPELINE THERAPEUTICS, INC.

By: _____
Title: _____

THE OPTION GRANTED PURSUANT TO THIS AGREEMENT AND THE SHARES ISSUABLE UPON THE EXERCISE THEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, PLEDGED, OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR AN OPINION OF COUNSEL, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED.

PIPELINE THERAPEUTICS, INC. 2012 EQUITY INCENTIVE PLAN:
STOCK OPTION AGREEMENT (INSTALLMENT EXERCISE)

SECTION 1. GRANT OF OPTION.

(a) **Option**. On the terms and conditions set forth in the Notice of Stock Option Grant and this Agreement, the Company grants to the Optionee on the Date of Grant the option to purchase at the Exercise Price the number of Shares set forth in the Notice of Stock Option Grant. The Exercise Price is agreed to be at least 100% of the Fair Market Value per Share on the Date of Grant (110% of Fair Market Value if this option is designated as an ISO in the Notice of Stock Option Grant and Section 4(b) of the Plan applies). This option is intended to be an ISO or an NSO, as provided in the Notice of Stock Option Grant.

(b) **$100,000 Limitation**. Even if this option is designated as an ISO in the Notice of Stock Option Grant, it shall be deemed to be an NSO to the extent (and only to the extent) required by the $100,000 annual limitation under Section 422(d) of the Code.

(c) **Stock Plan and Defined Terms**. This option is granted pursuant to the Plan, a copy of which the Optionee acknowledges having received. The provisions of the Plan are incorporated into this Agreement by this reference. Except as otherwise defined in this Agreement (including without limitation Section 14 hereof), capitalized terms shall have the meaning ascribed to such terms in the Plan.

SECTION 2. RIGHT TO EXERCISE.

(a) **Exercisability**. Subject to Subsection (b) below and the other conditions set forth in this Agreement, all or part of this option may be exercised prior to its expiration at the time or times set forth in the Notice of Stock Option Grant.

(b) **Stockholder Approval**. Any other provision of this Agreement notwithstanding, no portion of this option shall be exercisable at any time prior to the approval of the Plan by the Company's stockholders.

SECTION 3. NO TRANSFER OR ASSIGNMENT OF OPTION.

Except as otherwise provided in this Agreement, this option and the rights and privileges conferred hereby shall not be sold, pledged or otherwise transferred (whether by operation of law or otherwise) and shall not be subject to sale under execution, attachment, levy or similar process.

SECTION 4. EXERCISE PROCEDURES.

(a) **Notice of Exercise**. The Optionee or the Optionee's representative may exercise this option by: (i) signing and delivering written notice to the Company pursuant to Section 12(c) specifying the election to exercise this option, the number of Shares for which it is being exercised and the form of payment and (ii) delivering payment, in a form permissible under Section 5, for the full amount of the Purchase Price (together with any applicable withholding taxes under Subsection (b)). In the event that this option is being exercised by the representative of the Optionee, the notice shall be accompanied by proof (satisfactory to the Company) of the representative's right to exercise this option.

(b) **Withholding Taxes**. In the event that the Company determines that it is required to withhold any tax (including without limitation any income tax, social insurance contributions, payroll tax, payment on account or other tax-related items arising in connection with the Optionee's participation in the Plan and legally applicable to the Optionee (the "**Tax-Related Items**")) as a result of the grant, vesting or exercise of this option, or as a result of the transfer of shares acquired upon exercise of this option, the Optionee, as a condition of this option, shall make arrangements satisfactory to the Company to enable it to satisfy all Tax-Related Items. The Optionee acknowledges that the responsibility for all Tax-Related Items is the Optionee's and may exceed the amount actually withheld by the Company (or its affiliate or agent).

(c) **Issuance of Shares**. After satisfying all requirements for exercise of this option, the Company shall cause to be issued one or more certificates evidencing the Shares for which this option has been exercised. Such Shares shall be registered (i) in the name of the person exercising this option, (ii) in the names of such person and his or her spouse as community property or as joint tenants with the right of survivorship or (iii) with the Company's consent, in the name of a revocable trust. Until the issuance of the Shares has been entered into the books and records of the Company or a duly authorized transfer agent of the Company, no right to vote, receive dividends or any other right as a stockholder will exist with respect to such Shares. The Company shall cause such certificates to be delivered to or upon the order of the person exercising this option.

SECTION 5. PAYMENT FOR STOCK.

(a) **Cash**. All or part of the Purchase Price may be paid in cash or cash equivalents.

(b) **Surrender of Stock**. At the discretion of the Board of Directors, all or any part of the Purchase Price may be paid by surrendering, or attesting to the ownership of, Shares that are already owned by the Optionee. Such Shares shall be surrendered to the Company in good form for transfer and shall be valued at their Fair Market Value as of the date when this option is exercised.

(c) **Exercise/Sale**. All or part of the Purchase Price and any withholding taxes may be paid by the delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker approved by the Company to sell Shares and to deliver all or part of the sales proceeds to the Company. However, payment pursuant to this Subsection (c) shall be permitted only if (i) Stock then is publicly traded and (ii) such payment does not violate applicable law.

SECTION 6. TERM AND EXPIRATION.

(a) **Basic Term**. This option shall in any event expire on the expiration date set forth in the Notice of Stock Option Grant, which date is 10 years after the Date of Grant (five years after the Date of Grant if this option is designated as an ISO in the Notice of Stock Option Grant and Section 4(b) of the Plan applies).

(b) **Termination of Service (Except by Death)**. If the Optionee's Service terminates for any reason other than death, then this option shall expire on the earliest of the following occasions:

(i) The expiration date determined pursuant to Subsection (a) above;

(ii) The date three months after the termination of the Optionee's Service for any reason other than Disability; or

(iii) The date six months after the termination of the Optionee's Service by reason of Disability.

The Optionee may exercise all or part of this option at any time before its expiration under the preceding sentence, but only to the extent that this option had become exercisable before the Optionee's Service terminated. When the Optionee's Service terminates, this option shall expire immediately with respect to the number of Shares for which this option is not yet exercisable. In the event that the Optionee dies after termination of Service but before the expiration of this option, all or part of this option may be exercised (prior to expiration) by the executors or administrators of the Optionee's estate or by any person who has acquired this option directly from the Optionee by beneficiary designation, bequest or inheritance, but only to the extent that this option had become exercisable before the Optionee's Service terminated. Once this option (or portion thereof) has terminated, the Optionee shall have no further rights with respect to the option (or portion thereof) or to the underlying Shares.

(c) **Death of the Optionee**. If the Optionee dies while in Service, then this option shall expire on the earlier of the following dates:

(i) The expiration date determined pursuant to Subsection (a) above; or

(ii) The date 12 months after the Optionee's death.

All or part of this option may be exercised at any time before its expiration under the preceding sentence by the executors or administrators of the Optionee's estate or by any person who has

acquired this option directly from the Optionee by beneficiary designation, bequest or inheritance, but only to the extent that this option had become exercisable before the Optionee's death. When the Optionee dies, this option shall expire immediately with respect to the number of Shares for which this option is not yet exercisable. Once this option (or portion thereof) has terminated, the Optionee shall have no further rights with respect to the option (or portion thereof) or to the underlying Shares.

(d) **Extension of Post-Termination Exercise Periods**. Following the date on which the Company's Stock is first listed for trading on an established securities market, if during any part of the exercise period described in Subsections (b)(ii) or (iii) or Subsection (c)(ii) above the exercise of this option would be prohibited solely because the issuance of Shares upon such exercise would violate the registration requirements under the Securities Act or a similar provision of other applicable law, then instead of terminating at the end of such prescribed period, the then-vested portion of this option will instead remain outstanding and not expire until the earlier of (i) the expiration date determined pursuant to Section 6(a) above or (ii) the date on which the then-vested portion of this option has been exercisable without violation of applicable law for the aggregate period (which need not be consecutive) after termination of the Optionee's Service specified in the applicable Subsection above.

(e) **Part-Time Employment and Leaves of Absence**. If the Optionee commences working on a part-time basis, then the Company may adjust the vesting schedule set forth in the Notice of Stock Option Grant. If the Optionee goes on a leave of absence, then the Company may adjust the vesting schedule set forth in the Notice of Stock Option Grant in accordance with the Company's leave of absence policy or the terms of such leave. Except as provided in the preceding sentence, Service shall be deemed to continue for any purpose under this Agreement while the Optionee is on a *bona fide* leave of absence, if (i) such leave was approved by the Company in writing and (ii) continued crediting of Service for such purpose is expressly required by the terms of such leave or by applicable law (as determined by the Company). Service shall be deemed to terminate when such leave ends, unless the Optionee immediately returns to active work.

(f) **Notice Concerning ISO Treatment**. Even if this option is designated as an ISO in the Notice of Stock Option Grant, it ceases to qualify for favorable tax treatment as an ISO to the extent that it is exercised:

(i) More than three months after the date when the Optionee ceases to be an Employee for any reason other than death or permanent and total disability (as defined in Section 22(e)(3) of the Code);

(ii) More than 12 months after the date when the Optionee ceases to be an Employee by reason of permanent and total disability (as defined in Section 22(e)(3) of the Code); or

(iii) More than three months after the date when the Optionee has been on a leave of absence for three months, unless the Optionee's reemployment rights following such leave were guaranteed by statute or by contract.

SECTION 7. RIGHT OF FIRST REFUSAL.

(a) **Right of First Refusal**. In the event that the Optionee proposes to sell, pledge or otherwise transfer to a third party any Shares acquired under this Agreement, or any interest in such Shares, the Company shall have the Right of First Refusal with respect to all (and not less than all) of such Shares. If the Optionee desires to transfer Shares acquired under this Agreement, the Optionee shall give a written Transfer Notice to the Company describing fully the proposed transfer, including the number of Shares proposed to be transferred, the proposed transfer price, the name and address of the proposed Transferee and proof satisfactory to the Company that the proposed sale or transfer will not violate any applicable federal, State or foreign securities laws. The Transfer Notice shall be signed both by the Optionee and by the proposed Transferee and must constitute a binding commitment of both parties to the transfer of the Shares. The Company shall have the right to purchase all, and not less than all, of the Shares on the terms of the proposal described in the Transfer Notice (subject, however, to any change in such terms permitted under Subsection (b) below) by delivery of a notice of exercise of the Right of First Refusal within 30 days after the date when the Transfer Notice was received by the Company.

(b) **Transfer of Shares**. If the Company fails to exercise its Right of First Refusal within 30 days after the date when it received the Transfer Notice, the Optionee may, not later than 90 days following receipt of the Transfer Notice by the Company, conclude a transfer of the Shares subject to the Transfer Notice on the terms and conditions described in the Transfer Notice, provided that any such sale is made in compliance with applicable federal, State and foreign securities laws and not in violation of any other contractual restrictions to which the Optionee is bound. Any proposed transfer on terms and conditions different from those described in the Transfer Notice, as well as any subsequent proposed transfer by the Optionee, shall again be subject to the Right of First Refusal and shall require compliance with the procedure described in Subsection (a) above. If the Company exercises its Right of First Refusal, the parties shall consummate the sale of the Shares on the terms set forth in the Transfer Notice within 60 days after the date when the Company received the Transfer Notice (or within such longer period as may have been specified in the Transfer Notice); provided, however, that in the event the Transfer Notice provided that payment for the Shares was to be made in a form other than cash or cash equivalents paid at the time of transfer, the Company shall have the option of paying for the Shares with cash or cash equivalents equal to the present value of the consideration described in the Transfer Notice.

(c) **Additional or Exchanged Securities and Property**. In the event of a merger or consolidation of the Company, a sale of all or substantially all of the Company's stock or assets, any other corporate reorganization, a stock split, the declaration of a stock dividend, the declaration of an extraordinary dividend payable in a form other than stock, a spin-off, an adjustment in conversion ratio, a recapitalization or a similar transaction affecting the Company's outstanding securities, any securities or other property (including cash or cash equivalents) that are by reason of such transaction exchanged for, or distributed with respect to, any Shares subject to this Section 7 shall immediately be subject to the Right of First Refusal. Appropriate adjustments to reflect the exchange or distribution of such securities or property shall be made to the number and/or class of the Shares subject to this Section 7.

(d) **Termination of Right of First Refusal**. Any other provision of this Section 7 notwithstanding, in the event that the Stock is readily tradable on an established securities market when the Optionee desires to transfer Shares, the Company shall have no Right of First Refusal, and the Optionee shall have no obligation to comply with the procedures prescribed by Subsections (a) and (b) above.

(e) **Permitted Transfers**. This Section 7 shall not apply to (i) a transfer by beneficiary designation, will or intestate succession or (ii) a transfer to one or more members of the Optionee's Immediate Family or to a trust established by the Optionee for the benefit of the Optionee and/or one or more members of the Optionee's Immediate Family, provided in either case that the Transferee agrees in writing on a form prescribed by the Company to be bound by all provisions of this Agreement. If the Optionee transfers any Shares acquired under this Agreement, either under this Subsection (e) or after the Company has failed to exercise the Right of First Refusal, then this Agreement shall apply to the Transferee to the same extent as to the Optionee.

(f) **Termination of Rights as Stockholder**. If the Company makes available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Shares to be purchased in accordance with this Section 7, then after such time the person from whom such Shares are to be purchased shall no longer have any rights as a holder of such Shares (other than the right to receive payment of such consideration in accordance with this Agreement). Such Shares shall be deemed to have been purchased in accordance with the applicable provisions hereof, whether or not the certificate(s) therefor have been delivered as required by this Agreement.

(g) **Assignment of Right of First Refusal**. The Board of Directors may freely assign the Company's Right of First Refusal, in whole or in part. Any person who accepts an assignment of the Right of First Refusal from the Company shall assume all of the Company's rights and obligations under this Section 7.

SECTION 8. LEGALITY OF INITIAL ISSUANCE.

No Shares shall be issued upon the exercise of this option unless and until the Company has determined that:

(a) It and the Optionee have taken any actions required to register the Shares under the Securities Act or to perfect an exemption from the registration requirements thereof;

(b) Any applicable listing requirement of any stock exchange or other securities market on which Stock is listed has been satisfied; and

(c) Any other applicable provision of federal, State or foreign law has been satisfied.

SECTION 9. NO REGISTRATION RIGHTS.

The Company may, but shall not be obligated to, register or qualify the sale of Shares under the Securities Act or any other applicable law. The Company shall not be obligated

to take any affirmative action in order to cause the sale of Shares under this Agreement to comply with any law.

SECTION 10. RESTRICTIONS ON TRANSFER OF SHARES.

(a) **Securities Law Restrictions**. Regardless of whether the offer and sale of Shares under the Plan have been registered under the Securities Act or have been registered or qualified under the securities laws of any State or other relevant jurisdiction, the Company at its discretion may impose restrictions upon the sale, pledge or other transfer of such Shares (including the placement of appropriate legends on the stock certificates (or electronic equivalent) or the imposition of stop-transfer instructions) and may refuse (or may be required to refuse) to transfer Shares acquired hereunder (or Shares proposed to be transferred in a subsequent transfer) if, in the judgment of the Company, such restrictions, legends or refusal are necessary or appropriate to achieve compliance with the Securities Act or other relevant securities or other laws, including without limitation under Regulation S of the Securities Act or pursuant to another available exemption from registration.

(b) **Market Stand-Off**. In connection with any underwritten public offering by the Company of its equity securities pursuant to an effective registration statement filed under the Securities Act, including the Company's initial public offering, the Optionee or a Transferee shall not directly or indirectly sell, make any short sale of, loan, hypothecate, pledge, offer, grant or sell any option or other contract for the purchase of, purchase any option or other contract for the sale of, or otherwise dispose of or transfer, or agree to engage in any of the foregoing transactions with respect to, any Shares acquired under this Agreement without the prior written consent of the Company or its managing underwriter. Such restriction (the "**Market Stand-Off**") shall be in effect for such period of time following the date of the final prospectus for the offering as may be requested by the Company or such underwriter. In no event, however, shall such period exceed 180 days plus such additional period as may reasonably be requested by the Company or such underwriter to accommodate regulatory restrictions on (i) the publication or other distribution of research reports or (ii) analyst recommendations and opinions, including (without limitation) the restrictions set forth in Rule 2711(f)(4) of the National Association of Securities Dealers and Rule 472(f)(4) of the New York Stock Exchange, as amended, or any similar successor rules. The Market Stand-Off shall in any event terminate two years after the date of the Company's initial public offering. In the event of the declaration of a stock dividend, a spin-off, a stock split, an adjustment in conversion ratio, a recapitalization or a similar transaction affecting the Company's outstanding securities without receipt of consideration, any new, substituted or additional securities which are by reason of such transaction distributed with respect to any Shares subject to the Market Stand-Off, or into which such Shares thereby become convertible, shall immediately be subject to the Market Stand-Off. In order to enforce the Market Stand-Off, the Company may impose stop-transfer instructions with respect to the Shares acquired under this Agreement until the end of the applicable stand-off period. The Company's underwriters shall be beneficiaries of the agreement set forth in this Subsection (b). This Subsection (b) shall not apply to Shares registered in the public offering under the Securities Act.

(c) **Investment Intent at Grant**. The Optionee represents and agrees that the Shares to be acquired upon exercising this option will be acquired for investment, and not with a view to the sale or distribution thereof.

(d) **Investment Intent at Exercise**. In the event that the sale of Shares under the Plan is not registered under the Securities Act but an exemption is available that requires an investment representation or other representation, the Optionee shall represent and agree at the time of exercise that the Shares being acquired upon exercising this option are being acquired for investment, and not with a view to the sale or distribution thereof, and shall make such other representations as are deemed necessary or appropriate by the Company and its counsel, including (if applicable because the Company is relying on Regulation S under the Securities Act) that as of the date of exercise the Optionee is (i) not a U.S. Person; (ii) not acquiring the Shares on behalf, or for the account or benefit, of a U.S. Person; and (iii) is not exercising the option in the United States.

(e) **Legends**. All certificates evidencing Shares purchased under this Agreement shall bear the following legend:

"THE SHARES REPRESENTED HEREBY MAY NOT BE SOLD, ASSIGNED, TRANSFERRED, ENCUMBERED OR IN ANY MANNER DISPOSED OF, EXCEPT IN COMPLIANCE WITH THE TERMS OF A WRITTEN AGREEMENT BETWEEN THE COMPANY AND THE REGISTERED HOLDER OF THE SHARES (OR THE PREDECESSOR IN INTEREST TO THE SHARES). SUCH AGREEMENT GRANTS TO THE COMPANY CERTAIN RIGHTS OF FIRST REFUSAL UPON AN ATTEMPTED TRANSFER OF THE SHARES. IN ADDITION, THE SHARES ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A LIMITED PERIOD FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER. THE SECRETARY OF THE COMPANY WILL UPON WRITTEN REQUEST FURNISH A COPY OF SUCH AGREEMENT TO THE HOLDER HEREOF WITHOUT CHARGE."

All certificates evidencing Shares purchased under this Agreement in an unregistered transaction shall bear the following legend (and such other restrictive legends as are required or deemed advisable under the provisions of any applicable law):

"THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT") OR ANY SECURITIES LAWS OF ANY U.S. STATE, AND MAY NOT BE SOLD, REOFFERED, PLEDGED, ASSIGNED, ENCUMBERED OR OTHERWISE TRANSFERRED OR DISPOSED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR AN OPINION OF COUNSEL, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED. IN THE ABSENCE OF REGISTRATION OR THE AVAILABILITY (CONFIRMED BY OPINION OF COUNSEL) OF AN ALTERNATIVE EXEMPTION FROM REGISTRATION UNDER THE ACT (INCLUDING WITHOUT LIMITATION IN ACCORDANCE WITH REGULATION S UNDER THE ACT), THESE SHARES MAY NOT BE SOLD, REOFFERED, PLEDGED, ASSIGNED, ENCUMBERED

OR OTHERWISE TRANSFERRED OR DISPOSED OF. HEDGING TRANSACTIONS INVOLVING THESE SHARES MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE ACT."

(f) **Removal of Legends**. If, in the opinion of the Company and its counsel, any legend placed on a stock certificate representing Shares sold under this Agreement is no longer required, the holder of such certificate shall be entitled to exchange such certificate for a certificate representing the same number of Shares but without such legend.

(g) **Administration**. Any determination by the Company and its counsel in connection with any of the matters set forth in this Section 10 shall be conclusive and binding on the Optionee and all other persons.

SECTION 11. ADJUSTMENT OF SHARES.

In the event of any transaction described in Section 8(a) of the Plan, the terms of this option (including, without limitation, the number and kind of Shares subject to this option and the Exercise Price) shall be adjusted as set forth in Section 8(a) of the Plan. In the event that the Company is a party to a merger or consolidation or in the event of a sale of all or substantially all of the Company's stock or assets, this option shall be subject to the treatment provided by the Board of Directors in its sole discretion, as provided in Section 8(b) of the Plan.

SECTION 12. MISCELLANEOUS PROVISIONS.

(a) **Rights as a Stockholder**. Neither the Optionee nor the Optionee's representative shall have any rights as a stockholder with respect to any Shares subject to this option until the Optionee or the Optionee's representative becomes entitled to receive such Shares by filing a notice of exercise and paying the Purchase Price pursuant to Sections 4 and 5.

(b) **No Retention Rights**. Nothing in this option or in the Plan shall confer upon the Optionee any right to continue in Service for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Company (or any Parent or Subsidiary employing or retaining the Optionee) or of the Optionee, which rights are hereby expressly reserved by each, to terminate his or her Service at any time and for any reason, with or without cause.

(c) **Notice**. Any notice required by the terms of this Agreement shall be given in writing. It shall be deemed effective upon (i) personal delivery, (ii) deposit with the United States Postal Service, by registered or certified mail, with postage and fees prepaid, (iii) deposit with Federal Express Corporation, with shipping charges prepaid or (iv) deposit with any internationally recognized express mail courier service. Notice shall be addressed to the Company at its principal executive office and to the Optionee at the address that he or she most recently provided to the Company in accordance with this Subsection (c).

(d) **Modifications and Waivers**. No provision of this Agreement shall be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by the Optionee and by an authorized officer of the Company (other than the Optionee). No waiver by either party of any breach of, or of compliance with, any condition or provision of

this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(e) **Entire Agreement**. The Notice of Stock Option Grant, this Agreement and the Plan constitute the entire contract between the parties hereto with regard to the subject matter hereof. They supersede any other agreements, representations or understandings (whether oral or written and whether express or implied) that relate to the subject matter hereof.

(f) **Choice of Law**. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, as such laws are applied to contracts entered into and performed in such State.

SECTION 13. ACKNOWLEDGEMENTS OF THE OPTIONEE.

In addition to the other terms, conditions and restrictions imposed on this option and the Shares issuable under this option pursuant to this Agreement and the Plan, the Optionee expressly acknowledges being subject to Sections 7 (Right of First Refusal), 8 (Legality of Initial Issuance) and 10 (Restrictions on Transfer of Shares, including without limitation the Market Stand-Off), as well as the following provisions:

(a) **Tax Consequences (No Liability for Discounted Options)**. The Optionee agrees that the Company does not have a duty to design or administer the Plan or its other compensation programs in a manner that minimizes the Optionee's tax liabilities. The Optionee shall not make any claim against the Company or its Board of Directors, officers or employees related to tax liabilities arising from this option or the Optionee's other compensation. In particular, any Optionee subject to U.S. taxation acknowledges that this option is exempt from Section 409A of the Code only if the Exercise Price is at least equal to the Fair Market Value per Share on the Date of Grant. Since Shares are not traded on an established securities market, the determination of their Fair Market Value is made by the Board of Directors or by an independent valuation firm retained by the Company. The Optionee acknowledges that there is no guarantee in either case that the Internal Revenue Service will agree with the valuation, and the Optionee shall not make any claim against the Company or its Board of Directors, officers or employees in the event that the Internal Revenue Service asserts that the valuation was too low.

(b) **Electronic Delivery of Documents**. The Optionee agrees to accept by email all documents relating to the Company, the Plan or this option and all other documents that the Company is required to deliver to its security holders (including, without limitation, disclosures that may be required by the Securities and Exchange Commission). The Optionee also agrees that the Company may deliver these documents by posting them on a website maintained by the Company or by a third party under contract with the Company. If the Company posts these documents on a website, it shall notify the Optionee by email of their availability. The Optionee acknowledges that he or she may incur costs in connection with electronic delivery, including the cost of accessing the internet and printing fees, and that an interruption of internet access may interfere with his or her ability to access the documents. This consent shall remain in effect until this option expires or until the Optionee gives the Company written notice that it should deliver paper documents.

(c) **No Notice of Expiration Date**. The Optionee agrees that the Company and its officers, employees, attorneys and agents do not have any obligation to notify him or her prior to the expiration of this option pursuant to Section 6, regardless of whether this option will expire at the end of its full term or on an earlier date related to the termination of the Optionee's Service. The Optionee further agrees that he or she has the sole responsibility for monitoring the expiration of this option and for exercising this option, if at all, before it expires. This Subsection (c) shall supersede any contrary representation that may have been made, orally or in writing, by the Company or by an officer, employee, attorney or agent of the Company.

(d) **Waiver of Statutory Information Rights**. The Optionee acknowledges and agrees that, upon exercise of this option and until the first sale of the Company's Stock to the general public pursuant to a registration statement filed under the Securities Act, he or she will be deemed to have waived any rights the Optionee might otherwise have had under Section 220 of the Delaware General Corporation Law (or under similar rights under other applicable law) to inspect for any proper purpose and to make copies and extracts from the Company's stock ledger, a list of its stockholders and its other books and records or the books and records of any subsidiary. This waiver applies only in the Optionee's capacity as a stockholder and does not affect any other inspection rights the Optionee may have under other law or pursuant to a written agreement with the Company.

(e) **Plan Discretionary**. The Optionee understands and acknowledges that (i) the Plan is entirely discretionary, (ii) the Company and the Optionee's employer have reserved the right to amend, suspend or terminate the Plan at any time, (iii) the grant of an option does not in any way create any contractual or other right to receive additional grants of options (or benefits in lieu of options) at any time or in any amount and (iv) all determinations with respect to any additional grants, including (without limitation) the times when options will be granted, the number of Shares offered, the Exercise Price and the vesting schedule, will be at the sole discretion of the Company.

(f) **Termination of Service**. The Optionee understands and acknowledges that participation in the Plan ceases upon termination of his or her Service for any reason, except as may explicitly be provided otherwise in the Plan or this Agreement.

(g) **Extraordinary Compensation**. The value of this option shall be an extraordinary item of compensation outside the scope of the Optionee's employment contract, if any, and shall not be considered a part of his or her normal or expected compensation for purposes of calculating severance, resignation, redundancy or end-of-service payments, bonuses, long-service awards, pension or retirement benefits or similar payments.

(h) **Authorization to Disclose**. The Optionee hereby authorizes and directs the Optionee's employer to disclose to the Company or any Subsidiary any information regarding the Optionee's employment, the nature and amount of the Optionee's compensation and the fact and conditions of the Optionee's participation in the Plan, as the Optionee's employer deems necessary or appropriate to facilitate the administration of the Plan.

(i) **Personal Data Authorization**. The Optionee consents to the collection, use and transfer of personal data as described in this Subsection (i). The Optionee understands and

acknowledges that the Company, the Optionee's employer and the Company's other Subsidiaries hold certain personal information regarding the Optionee for the purpose of managing and administering the Plan, including (without limitation) the Optionee's name, home address, telephone number, date of birth, social insurance number, salary, nationality, job title, any Shares or directorships held in the Company and details of all options or any other entitlements to Shares awarded, canceled, exercised, vested, unvested or outstanding in the Optionee's favor (the "**Data**"). The Optionee further understands and acknowledges that the Company and/or its Subsidiaries will transfer Data among themselves as necessary for the purpose of implementation, administration and management of the Optionee's participation in the Plan and that the Company and/or any Subsidiary may each further transfer Data to any third party assisting the Company in the implementation, administration and management of the Plan. The Optionee understands and acknowledges that the recipients of Data may be located in the United States or elsewhere. The Optionee authorizes such recipients to receive, possess, use, retain and transfer Data, in electronic or other form, for the purpose of administering the Optionee's participation in the Plan, including a transfer to any broker or other third party with whom the Optionee elects to deposit Shares acquired under the Plan of such Data as may be required for the administration of the Plan and/or the subsequent holding of Shares on the Optionee's behalf. The Optionee may, at any time, view the Data, require any necessary modifications of Data or withdraw the consents set forth in this Subsection (i) by contacting the Company in writing.

SECTION 14. DEFINITIONS.

(a) "**Agreement**" shall mean this Stock Option Agreement.

(b) "**Board of Directors**" shall mean the Board of Directors of the Company, as constituted from time to time or, if a Committee has been appointed, such Committee.

(c) "**Company**" shall mean Pipeline Therapeutics, Inc., a Delaware corporation.

(d) "**Immediate Family**" shall mean any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law and shall include adoptive relationships.

(e) "**Optionee**" shall mean the person named in the Notice of Stock Option Grant.

(f) "**Plan**" shall mean the Pipeline Therapeutics, Inc. 2012 Equity Incentive Plan, as in effect on the Date of Grant.

(g) "**Purchase Price**" shall mean the Exercise Price multiplied by the number of Shares with respect to which this option is being exercised.

(h) "**Right of First Refusal**" shall mean the Company's right of first refusal described in Section 7.

(i) "**Service**" shall mean service as an Employee, Outside Director or Consultant.

(j) "**Transferee**" shall mean any person to whom the Optionee has directly or indirectly transferred any Share acquired under this Agreement.

(k) "**Transfer Notice**" shall mean the notice of a proposed transfer of Shares described in Section 7.

(l) "**U.S. Person**" shall mean a person described in Rule 902(k) of Regulation S of the Securities Act (or any successor rule or provision), which generally defines a U.S. person as any natural person resident in the United States, any estate of which any executor or administrator is a U.S. Person, or any trust of which of any trustee is a U.S. Person.

PIPELINE THERAPEUTICS, INC. 2012 EQUITY INCENTIVE PLAN

NOTICE OF STOCK OPTION GRANT (EARLY EXERCISE)

The Optionee has been granted the following option to purchase shares of the Class A Common Stock of Pipeline Therapeutics, Inc.:

Name of Optionee:	_____
Total Number of Shares:	_____
Type of Option:	_____ Incentive Stock Option (ISO)
	_____ Nonstatutory Stock Option (NSO)
Exercise Price per Share:	$_____
Date of Grant:	_____
Date Exercisable:	This option may be exercised at any time after the Date of Grant for all or any part of the Shares subject to this option.
Vesting Commencement Date:	_____
Vesting Schedule:	_____
Expiration Date:	_____. This option expires earlier if the Optionee's Service terminates earlier, as provided in Section 6 of the Stock Option Agreement, or if the Company engages in certain corporate transactions, as provided in Section 9(c) of the Plan.

By signing below, the Optionee and the Company agree that this option is granted under, and governed by the terms and conditions of, the 2012 Equity Incentive Plan and the Stock Option Agreement. Both of these documents are attached to, and made a part of, this Notice of Stock Option Grant. **Section 14 of the Stock Option Agreement includes important acknowledgements of the Optionee**.

OPTIONEE:

_____

PIPELINE THERAPEUTICS, INC.

By: _____
Title: _____

THE OPTION GRANTED PURSUANT TO THIS AGREEMENT AND THE SHARES ISSUABLE UPON THE EXERCISE THEREOF HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, AND MAY NOT BE SOLD, PLEDGED, OR OTHERWISE TRANSFERRED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR AN OPINION OF COUNSEL, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED.

PIPELINE THERAPEUTICS, INC. 2012 EQUITY INCENTIVE PLAN:
STOCK OPTION AGREEMENT (EARLY EXERCISE)

SECTION 1. GRANT OF OPTION.

(a) **Option**. On the terms and conditions set forth in the Notice of Stock Option Grant and this Agreement, the Company grants to the Optionee on the Date of Grant the option to purchase at the Exercise Price the number of Shares set forth in the Notice of Stock Option Grant. The Exercise Price is agreed to be at least 100% of the Fair Market Value per Share on the Date of Grant (110% of Fair Market Value if this option is designated as an ISO in the Notice of Stock Option Grant and Section 4(b) of the Plan applies). This option is intended to be an ISO or an NSO, as provided in the Notice of Stock Option Grant.

(b) **$100,000 Limitation**. Even if this option is designated as an ISO in the Notice of Stock Option Grant, it shall be deemed to be an NSO to the extent (and only to the extent) required by the $100,000 annual limitation under Section 422(d) of the Code.

(c) **Stock Plan and Defined Terms**. This option is granted pursuant to the Plan, a copy of which the Optionee acknowledges having received. The provisions of the Plan are incorporated into this Agreement by this reference. Except as otherwise defined in this Agreement (including without limitation Section 15 hereof), capitalized terms shall have the meaning ascribed to such terms in the Plan.

SECTION 2. RIGHT TO EXERCISE.

(a) **Exercisability**. Subject to Subsection (b) below and the other conditions set forth in this Agreement, all or part of this option may be exercised prior to its expiration at the time or times set forth in the Notice of Stock Option Grant. Shares purchased by exercising this option may be subject to the Right of Repurchase under Section 7.

(b) **Stockholder Approval**. Any other provision of this Agreement notwithstanding, no portion of this option shall be exercisable at any time prior to the approval of the Plan by the Company's stockholders.

SECTION 3. NO TRANSFER OR ASSIGNMENT OF OPTION.

Except as otherwise provided in this Agreement, this option and the rights and privileges conferred hereby shall not be sold, pledged or otherwise transferred (whether by operation of law or otherwise) and shall not be subject to sale under execution, attachment, levy or similar process.

SECTION 4. EXERCISE PROCEDURES.

(a) **Notice of Exercise**. The Optionee or the Optionee's representative may exercise this option by: (i) signing and delivering written notice to the Company pursuant to Section 13(c) specifying the election to exercise this option, the number of Shares for which it is being exercised and the form of payment and (ii) delivering payment, in a form permissible under Section 5, for the full amount of the Purchase Price (together with any applicable withholding taxes under Subsection (b)). In the event that this option is being exercised by the representative of the Optionee, the notice shall be accompanied by proof (satisfactory to the Company) of the representative's right to exercise this option. In the event of a partial exercise of this option, Shares shall be deemed to have been purchased in the order in which they vest in accordance with the Notice of Stock Option Grant.

(b) **Withholding Taxes**. In the event that the Company determines that it is required to withhold any tax (including without limitation any income tax, social insurance contributions, payroll tax, payment on account or other tax-related items arising in connection with the Optionee's participation in the Plan and legally applicable to the Optionee (the "**Tax-Related Items**")) as a result of the grant, vesting or exercise of this option, or as a result of the vesting or transfer of shares acquired upon exercise of this option, the Optionee, as a condition of this option, shall make arrangements satisfactory to the Company to enable it to satisfy all Tax-Related Items. The Optionee acknowledges that the responsibility for all Tax-Related Items is the Optionee's and may exceed the amount actually withheld by the Company (or its affiliate or agent).

(c) **Issuance of Shares**. After satisfying all requirements for exercise of this option, the Company shall cause to be issued one or more certificates evidencing the Shares for which this option has been exercised. Such Shares shall be registered (i) in the name of the person exercising this option, (ii) in the names of such person and his or her spouse as community property or as joint tenants with the right of survivorship or (iii) with the Company's consent, in the name of a revocable trust. Until the issuance of the Shares has been entered into the books and records of the Company or a duly authorized transfer agent of the Company, no right to vote, receive dividends or any other right as a stockholder will exist with respect to such Shares. In the case of Restricted Shares, the Company shall cause such certificates to be deposited in escrow under Section 7(c). In the case of other Shares, the Company shall cause such certificates to be delivered to or upon the order of the person exercising this option.

SECTION 5. PAYMENT FOR STOCK.

(a) **Cash**. All or part of the Purchase Price may be paid in cash or cash equivalents.

(b) **Surrender of Stock**. At the discretion of the Board of Directors, all or any part of the Purchase Price may be paid by surrendering, or attesting to the ownership of, Shares that are already owned by the Optionee. Such Shares shall be surrendered to the Company in good form for transfer and shall be valued at their Fair Market Value as of the date when this option is exercised.

(c) **Exercise/Sale**. All or part of the Purchase Price and any withholding taxes may be paid by the delivery (on a form prescribed by the Company) of an irrevocable direction to a securities broker approved by the Company to sell Shares and to deliver all or part of the sales proceeds to the Company. However, payment pursuant to this Subsection (c) shall be permitted only if (i) Stock then is publicly traded and (ii) such payment does not violate applicable law.

SECTION 6. TERM AND EXPIRATION.

(a) **Basic Term**. This option shall in any event expire on the expiration date set forth in the Notice of Stock Option Grant, which date is 10 years after the Date of Grant (five years after the Date of Grant if this option is designated as an ISO in the Notice of Stock Option Grant and Section 4(b) of the Plan applies).

(b) **Termination of Service (Except by Death)**. If the Optionee's Service terminates for any reason other than death, then this option shall expire on the earliest of the following occasions:

(i) The expiration date determined pursuant to Subsection (a) above;

(ii) The date three months after the termination of the Optionee's Service for any reason other than Disability; or

(iii) The date six months after the termination of the Optionee's Service by reason of Disability.

The Optionee may exercise all or part of this option at any time before its expiration under the preceding sentence, but only to the extent that this option is exercisable for vested Shares on or before the date when the Optionee's Service terminates. When the Optionee's Service terminates, this option shall expire immediately with respect to the number of Shares for which this option is not yet exercisable and with respect to any Restricted Shares. In the event that the Optionee dies after termination of Service but before the expiration of this option, all or part of this option may be exercised (prior to expiration) by the executors or administrators of the Optionee's estate or by any person who has acquired this option directly from the Optionee by beneficiary designation, bequest or inheritance, but only to the extent that this option was exercisable for vested Shares on or before the date when the Optionee's Service terminated. Once this option (or portion thereof) has terminated, the Optionee shall have no further rights with respect to the option (or portion thereof) or to the underlying Shares.

(c) **Death of the Optionee**. If the Optionee dies while in Service, then this option shall expire on the earlier of the following dates:

(i) The expiration date determined pursuant to Subsection (a) above; or

(ii) The date 12 months after the Optionee's death.

All or part of this option may be exercised at any time before its expiration under the preceding sentence by the executors or administrators of the Optionee's estate or by any person who has acquired this option directly from the Optionee by beneficiary designation, bequest or inheritance, but only to the extent that this option is exercisable for vested Shares on or before the date of the Optionee's death. When the Optionee dies, this option shall expire immediately with respect to the number of Shares for which this option is not yet exercisable and with respect to any Restricted Shares. Once this option (or portion thereof) has terminated, the Optionee shall have no further rights with respect to the option (or portion thereof) or to the underlying Shares.

(d) **Extension of Post-Termination Exercise Periods**. Following the date on which the Company's Stock is first listed for trading on an established securities market, if during any part of the exercise period described in Subsections (b)(ii) or (iii) or Subsection (c)(ii) above the exercise of this option would be prohibited solely because the issuance of Shares upon such exercise would violate the registration requirements under the Securities Act or a similar provision of other applicable law, then instead of terminating at the end of such prescribed period, the then-vested portion of this option will instead remain outstanding and not expire until the earlier of (i) the expiration date determined pursuant to Section 6(a) above or (ii) the date on which the then-vested portion of this option has been exercisable without violation of applicable law for the aggregate period (which need not be consecutive) after termination of the Optionee's Service specified in the applicable Subsection above.

(e) **Part-Time Employment and Leaves of Absence**. If the Optionee commences working on a part-time basis, then the Company may adjust the vesting schedule set forth in the Notice of Stock Option Grant. If the Optionee goes on a leave of absence, then the Company may adjust the vesting schedule set forth in the Notice of Stock Option Grant in accordance with the Company's leave of absence policy or the terms of such leave. Except as provided in the preceding sentence, Service shall be deemed to continue for any purpose under this Agreement while the Optionee is on a *bona fide* leave of absence, if (i) such leave was approved by the Company in writing and (ii) continued crediting of Service for such purpose is expressly required by the terms of such leave or by applicable law (as determined by the Company). Service shall be deemed to terminate when such leave ends, unless the Optionee immediately returns to active work.

(f) **Notice Concerning ISO Treatment**. Even if this option is designated as an ISO in the Notice of Stock Option Grant, it ceases to qualify for favorable tax treatment as an ISO to the extent that it is exercised:

(i) More than three months after the date when the Optionee ceases to be an Employee for any reason other than death or permanent and total disability (as defined in Section 22(e)(3) of the Code);

(ii) More than 12 months after the date when the Optionee ceases to be an Employee by reason of permanent and total disability (as defined in Section 22(e)(3) of the Code); or

(iii) More than three months after the date when the Optionee has been on a leave of absence for three months, unless the Optionee's reemployment rights following such leave were guaranteed by statute or by contract.

SECTION 7. RIGHT OF REPURCHASE.

(a) **Scope of Repurchase Right**. Until they vest in accordance with the Notice of Stock Option Grant and Subsection (b) below, the Shares acquired under this Agreement shall be Restricted Shares and shall be subject to the Company's Right of Repurchase. The Company, however, may decline to exercise its Right of Repurchase or may exercise its Right of Repurchase only with respect to a portion of the Restricted Shares. The Company may exercise its Right of Repurchase only during the Repurchase Period following the termination of the Optionee's Service, but the Right of Repurchase may be exercised automatically under Subsection (d) below. If the Right of Repurchase is exercised, the Company shall pay the Optionee an amount equal to the lower of (i) the Exercise Price of each Restricted Share being repurchased or (ii) the Fair Market Value of such Restricted Share at the time the Right of Repurchase is exercised.

(b) **Lapse of Repurchase Right**. The Right of Repurchase shall lapse with respect to the Restricted Shares in accordance with the vesting schedule set forth in the Notice of Stock Option Grant.

(c) **Escrow**. Upon issuance, the certificate(s) for Restricted Shares shall be deposited in escrow with the Company to be held in accordance with the provisions of this Agreement. Any additional or exchanged securities or other property described in Subsection (f) below shall immediately be delivered to the Company to be held in escrow. All ordinary cash dividends on Restricted Shares (or on other securities held in escrow) shall be paid directly to the Optionee and shall not be held in escrow. Restricted Shares, together with any other assets held in escrow under this Agreement, shall be (i) surrendered to the Company for repurchase upon exercise of the Right of Repurchase or the Right of First Refusal or (ii) released to the Optionee upon his or her request to the extent that the Shares have ceased to be Restricted Shares (but not more frequently than once every six months). In any event, all Shares that have ceased to be Restricted Shares, together with any other vested assets held in escrow under this Agreement, shall be released within 90 days after the earlier of (i) the termination of the Optionee's Service or (ii) the lapse of the Right of First Refusal.

(d) **Exercise of Repurchase Right**. The Company shall be deemed to have exercised its Right of Repurchase automatically for all Restricted Shares as of the commencement of the Repurchase Period, unless the Company during the Repurchase Period notifies the holder of the Restricted Shares pursuant to Section 13(c) that it will not exercise its Right of Repurchase for some or all of the Restricted Shares. The Company shall pay to the holder of the Restricted Shares the purchase price determined under Subsection (a) above for the Restricted Shares being repurchased. Payment shall be made in cash or cash equivalents and/or by canceling indebtedness to the Company incurred by the Optionee in the purchase of the Restricted Shares. The

certificate(s) representing the Restricted Shares being repurchased shall be delivered to the Company.

(e) **Termination of Rights as Stockholder**. If the Right of Repurchase is exercised in accordance with this Section 7 and the Company makes available the consideration for the Restricted Shares being repurchased, then the person from whom the Restricted Shares are repurchased shall no longer have any rights as a holder of the Restricted Shares (other than the right to receive payment of such consideration). Such Restricted Shares shall be deemed to have been repurchased pursuant to this Section 7, whether or not the certificate(s) for such Restricted Shares have been delivered to the Company or the consideration for such Restricted Shares has been accepted.

(f) **Additional or Exchanged Securities and Property**. In the event of a merger or consolidation of the Company, a sale of all or substantially all of the Company's stock or assets, any other corporate reorganization, a stock split, the declaration of a stock dividend, the declaration of an extraordinary dividend payable in a form other than stock, a spin-off, an adjustment in conversion ratio, a recapitalization or a similar transaction affecting the Company's outstanding securities, any securities or other property (including cash or cash equivalents) that are by reason of such transaction exchanged for, or distributed with respect to, any Restricted Shares shall immediately be subject to the Right of Repurchase. Appropriate adjustments to reflect the exchange or distribution of such securities or property shall be made to the number and/or class of the Restricted Shares. Appropriate adjustments shall also be made to the price per share to be paid upon the exercise of the Right of Repurchase, provided that the aggregate purchase price payable for the Restricted Shares shall remain the same. In the event of any transaction described in Section 8(b) of the Plan or any other corporate reorganization, the Right of Repurchase may be exercised by the Company's successor.

(g) **Transfer of Restricted Shares**. The Optionee shall not transfer, assign, encumber or otherwise dispose of any Restricted Shares without the Company's written consent, except as provided in the following sentence. The Optionee may transfer Restricted Shares to one or more members of the Optionee's Immediate Family or to a trust established by the Optionee for the benefit of the Optionee and/or one or more members of the Optionee's Immediate Family, provided in either case that the Transferee agrees in writing on a form prescribed by the Company to be bound by all provisions of this Agreement. If the Optionee transfers any Restricted Shares, then this Agreement shall apply to the Transferee to the same extent as to the Optionee.

(h) **Assignment of Repurchase Right**. The Board of Directors may freely assign the Company's Right of Repurchase, in whole or in part. Any person who accepts an assignment of the Right of Repurchase from the Company shall assume all of the Company's rights and obligations under this Section 7.

SECTION 8. RIGHT OF FIRST REFUSAL.

(a) **Right of First Refusal**. In the event that the Optionee proposes to sell, pledge or otherwise transfer to a third party any Shares acquired under this Agreement, or any interest in such Shares, the Company shall have the Right of First Refusal with respect to all (and not less than all) of such Shares. If the Optionee desires to transfer Shares acquired under this

Agreement, the Optionee shall give a written Transfer Notice to the Company describing fully the proposed transfer, including the number of Shares proposed to be transferred, the proposed transfer price, the name and address of the proposed Transferee and proof satisfactory to the Company that the proposed sale or transfer will not violate any applicable federal, State or foreign securities laws. The Transfer Notice shall be signed both by the Optionee and by the proposed Transferee and must constitute a binding commitment of both parties to the transfer of the Shares. The Company shall have the right to purchase all, and not less than all, of the Shares on the terms of the proposal described in the Transfer Notice (subject, however, to any change in such terms permitted under Subsection (b) below) by delivery of a notice of exercise of the Right of First Refusal within 30 days after the date when the Transfer Notice was received by the Company.

(b) **Transfer of Shares**. If the Company fails to exercise its Right of First Refusal within 30 days after the date when it received the Transfer Notice, the Optionee may, not later than 90 days following receipt of the Transfer Notice by the Company, conclude a transfer of the Shares subject to the Transfer Notice on the terms and conditions described in the Transfer Notice, provided that any such sale is made in compliance with applicable federal, State and foreign securities laws and not in violation of any other contractual restrictions to which the Optionee is bound. Any proposed transfer on terms and conditions different from those described in the Transfer Notice, as well as any subsequent proposed transfer by the Optionee, shall again be subject to the Right of First Refusal and shall require compliance with the procedure described in Subsection (a) above. If the Company exercises its Right of First Refusal, the parties shall consummate the sale of the Shares on the terms set forth in the Transfer Notice within 60 days after the date when the Company received the Transfer Notice (or within such longer period as may have been specified in the Transfer Notice); provided, however, that in the event the Transfer Notice provided that payment for the Shares was to be made in a form other than cash or cash equivalents paid at the time of transfer, the Company shall have the option of paying for the Shares with cash or cash equivalents equal to the present value of the consideration described in the Transfer Notice.

(c) **Additional or Exchanged Securities and Property**. In the event of a merger or consolidation of the Company, a sale of all or substantially all of the Company's stock or assets, any other corporate reorganization, a stock split, the declaration of a stock dividend, the declaration of an extraordinary dividend payable in a form other than stock, a spin-off, an adjustment in conversion ratio, a recapitalization or a similar transaction affecting the Company's outstanding securities, any securities or other property (including cash or cash equivalents) that are by reason of such transaction exchanged for, or distributed with respect to, any Shares subject to this Section 8 shall immediately be subject to the Right of First Refusal. Appropriate adjustments to reflect the exchange or distribution of such securities or property shall be made to the number and/or class of the Shares subject to this Section 8.

(d) **Termination of Right of First Refusal**. Any other provision of this Section 8 notwithstanding, in the event that the Stock is readily tradable on an established securities market when the Optionee desires to transfer Shares, the Company shall have no Right of First Refusal, and the Optionee shall have no obligation to comply with the procedures prescribed by Subsections (a) and (b) above.

(e) **Permitted Transfers**. This Section 8 shall not apply to (i) a transfer by beneficiary designation, will or intestate succession or (ii) a transfer to one or more members of the Optionee's Immediate Family or to a trust established by the Optionee for the benefit of the Optionee and/or one or more members of the Optionee's Immediate Family, provided in either case that the Transferee agrees in writing on a form prescribed by the Company to be bound by all provisions of this Agreement. If the Optionee transfers any Shares acquired under this Agreement, either under this Subsection (e) or after the Company has failed to exercise the Right of First Refusal, then this Agreement shall apply to the Transferee to the same extent as to the Optionee.

(f) **Termination of Rights as Stockholder**. If the Company makes available, at the time and place and in the amount and form provided in this Agreement, the consideration for the Shares to be purchased in accordance with this Section 8, then after such time the person from whom such Shares are to be purchased shall no longer have any rights as a holder of such Shares (other than the right to receive payment of such consideration in accordance with this Agreement). Such Shares shall be deemed to have been purchased in accordance with the applicable provisions hereof, whether or not the certificate(s) therefor have been delivered as required by this Agreement.

(g) **Assignment of Right of First Refusal**. The Board of Directors may freely assign the Company's Right of First Refusal, in whole or in part. Any person who accepts an assignment of the Right of First Refusal from the Company shall assume all of the Company's rights and obligations under this Section 8.

SECTION 9. LEGALITY OF INITIAL ISSUANCE.

No Shares shall be issued upon the exercise of this option unless and until the Company has determined that:

(a) It and the Optionee have taken any actions required to register the Shares under the Securities Act or to perfect an exemption from the registration requirements thereof;

(b) Any applicable listing requirement of any stock exchange or other securities market on which Stock is listed has been satisfied; and

(c) Any other applicable provision of federal, State or foreign law has been satisfied.

SECTION 10. NO REGISTRATION RIGHTS.

The Company may, but shall not be obligated to, register or qualify the sale of Shares under the Securities Act or any other applicable law. The Company shall not be obligated to take any affirmative action in order to cause the sale of Shares under this Agreement to comply with any law.

SECTION 11. RESTRICTIONS ON TRANSFER OF SHARES.

(a) **Securities Law Restrictions**. Regardless of whether the offer and sale of Shares under the Plan have been registered under the Securities Act or have been registered or qualified under the securities laws of any State or other relevant jurisdiction, the Company at its discretion may impose restrictions upon the sale, pledge or other transfer of such Shares (including the placement of appropriate legends on the stock certificates (or electronic equivalent) or the imposition of stop-transfer instructions) and may refuse (or may be required to refuse) to transfer Shares acquired hereunder (or Shares proposed to be transferred in a subsequent transfer) if, in the judgment of the Company, such restrictions, legends or refusal are necessary or appropriate to achieve compliance with the Securities Act or other relevant securities or other laws, including without limitation under Regulation S of the Securities Act or pursuant to another available exemption from registration.

(b) **Market Stand-Off**. In connection with any underwritten public offering by the Company of its equity securities pursuant to an effective registration statement filed under the Securities Act, including the Company's initial public offering, the Optionee or a Transferee shall not directly or indirectly sell, make any short sale of, loan, hypothecate, pledge, offer, grant or sell any option or other contract for the purchase of, purchase any option or other contract for the sale of, or otherwise dispose of or transfer, or agree to engage in any of the foregoing transactions with respect to, any Shares acquired under this Agreement without the prior written consent of the Company or its managing underwriter. Such restriction (the "Market Stand-Off") shall be in effect for such period of time following the date of the final prospectus for the offering as may be requested by the Company or such underwriter. In no event, however, shall such period exceed 180 days plus such additional period as may reasonably be requested by the Company or such underwriter to accommodate regulatory restrictions on (i) the publication or other distribution of research reports or (ii) analyst recommendations and opinions, including (without limitation) the restrictions set forth in Rule 2711(f)(4) of the National Association of Securities Dealers and Rule 472(f)(4) of the New York Stock Exchange, as amended, or any similar successor rules. The Market Stand-Off shall in any event terminate two years after the date of the Company's initial public offering. In the event of the declaration of a stock dividend, a spin-off, a stock split, an adjustment in conversion ratio, a recapitalization or a similar transaction affecting the Company's outstanding securities without receipt of consideration, any new, substituted or additional securities which are by reason of such transaction distributed with respect to any Shares subject to the Market Stand-Off, or into which such Shares thereby become convertible, shall immediately be subject to the Market Stand-Off. In order to enforce the Market Stand-Off, the Company may impose stop-transfer instructions with respect to the Shares acquired under this Agreement until the end of the applicable stand-off period. The Company's underwriters shall be beneficiaries of the agreement set forth in this Subsection (b). This Subsection (b) shall not apply to Shares registered in the public offering under the Securities Act.

(c) **Investment Intent at Grant**. The Optionee represents and agrees that the Shares to be acquired upon exercising this option will be acquired for investment, and not with a view to the sale or distribution thereof.

(d) **Investment Intent at Exercise**. In the event that the sale of Shares under the Plan is not registered under the Securities Act but an exemption is available that requires an

investment representation or other representation, the Optionee shall represent and agree at the time of exercise that the Shares being acquired upon exercising this option are being acquired for investment, and not with a view to the sale or distribution thereof, and shall make such other representations as are deemed necessary or appropriate by the Company and its counsel, including (if applicable because the Company is relying on Regulation S under the Securities Act) that as of the date of exercise the Optionee is (i) not a U.S. Person; (ii) not acquiring the Shares on behalf, or for the account or benefit, of a U.S. Person; and (iii) is not exercising the option in the United States.

(e) **Legends**. All certificates evidencing Shares purchased under this Agreement shall bear the following legend:

"THE SHARES REPRESENTED HEREBY MAY NOT BE SOLD, ASSIGNED, TRANSFERRED, ENCUMBERED OR IN ANY MANNER DISPOSED OF, EXCEPT IN COMPLIANCE WITH THE TERMS OF A WRITTEN AGREEMENT BETWEEN THE COMPANY AND THE REGISTERED HOLDER OF THE SHARES (OR THE PREDECESSOR IN INTEREST TO THE SHARES). SUCH AGREEMENT GRANTS TO THE COMPANY CERTAIN RIGHTS OF FIRST REFUSAL UPON AN ATTEMPTED TRANSFER OF THE SHARES AND CERTAIN REPURCHASE RIGHTS UPON TERMINATION OF SERVICE WITH THE COMPANY. IN ADDITION, THE SHARES ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A LIMITED PERIOD FOLLOWING THE EFFECTIVE DATE OF THE UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER. THE SECRETARY OF THE COMPANY WILL UPON WRITTEN REQUEST FURNISH A COPY OF SUCH AGREEMENT TO THE HOLDER HEREOF WITHOUT CHARGE."

All certificates evidencing Shares purchased under this Agreement in an unregistered transaction shall bear the following legend (and such other restrictive legends as are required or deemed advisable under the provisions of any applicable law):

"THE SHARES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT") OR ANY SECURITIES LAWS OF ANY U.S. STATE, AND MAY NOT BE SOLD, REOFFERED, PLEDGED, ASSIGNED, ENCUMBERED OR OTHERWISE TRANSFERRED OR DISPOSED WITHOUT AN EFFECTIVE REGISTRATION THEREOF UNDER SUCH ACT OR AN OPINION OF COUNSEL, SATISFACTORY TO THE COMPANY AND ITS COUNSEL, THAT SUCH REGISTRATION IS NOT REQUIRED. IN THE ABSENCE OF REGISTRATION OR THE AVAILABILITY (CONFIRMED BY OPINION OF COUNSEL) OF AN ALTERNATIVE EXEMPTION FROM REGISTRATION UNDER THE ACT (INCLUDING WITHOUT LIMITATION IN ACCORDANCE WITH REGULATION S UNDER THE ACT), THESE SHARES MAY NOT BE SOLD, REOFFERED, PLEDGED, ASSIGNED, ENCUMBERED

OR OTHERWISE TRANSFERRED OR DISPOSED OF. HEDGING TRANSACTIONS INVOLVING THESE SHARES MAY NOT BE CONDUCTED UNLESS IN COMPLIANCE WITH THE ACT."

(f) **Removal of Legends**. If, in the opinion of the Company and its counsel, any legend placed on a stock certificate representing Shares sold under this Agreement is no longer required, the holder of such certificate shall be entitled to exchange such certificate for a certificate representing the same number of Shares but without such legend.

(g) **Administration**. Any determination by the Company and its counsel in connection with any of the matters set forth in this Section 11 shall be conclusive and binding on the Optionee and all other persons.

SECTION 12. ADJUSTMENT OF SHARES.

In the event of any transaction described in Section 8(a) of the Plan, the terms of this option (including, without limitation, the number and kind of Shares subject to this option and the Exercise Price) shall be adjusted as set forth in Section 8(a) of the Plan. In the event that the Company is a party to a merger or consolidation or in the event of a sale of all or substantially all of the Company's stock or assets, this option shall be subject to the treatment provided by the Board of Directors in its sole discretion, as provided in Section 8(b) of the Plan.

SECTION 13. MISCELLANEOUS PROVISIONS.

(a) **Rights as a Stockholder**. Neither the Optionee nor the Optionee's representative shall have any rights as a stockholder with respect to any Shares subject to this option until the Optionee or the Optionee's representative becomes entitled to receive such Shares by filing a notice of exercise and paying the Purchase Price pursuant to Sections 4 and 5.

(b) **No Retention Rights**. Nothing in this option or in the Plan shall confer upon the Optionee any right to continue in Service for any period of specific duration or interfere with or otherwise restrict in any way the rights of the Company (or any Parent or Subsidiary employing or retaining the Optionee) or of the Optionee, which rights are hereby expressly reserved by each, to terminate his or her Service at any time and for any reason, with or without cause.

(c) **Notice**. Any notice required by the terms of this Agreement shall be given in writing. It shall be deemed effective upon (i) personal delivery, (ii) deposit with the United States Postal Service, by registered or certified mail, with postage and fees prepaid, (iii) deposit with Federal Express Corporation, with shipping charges prepaid or (iv) deposit with any internationally recognized express mail courier service. Notice shall be addressed to the Company at its principal executive office and to the Optionee at the address that he or she most recently provided to the Company in accordance with this Subsection (c).

(d) **Modifications and Waivers**. No provision of this Agreement shall be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by the Optionee and by an authorized officer of the Company (other than the Optionee). No waiver by either party of any breach of, or of compliance with, any condition or provision of

this Agreement by the other party shall be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(e) **Entire Agreement**. The Notice of Stock Option Grant, this Agreement and the Plan constitute the entire contract between the parties hereto with regard to the subject matter hereof. They supersede any other agreements, representations or understandings (whether oral or written and whether express or implied) that relate to the subject matter hereof.

(f) **Choice of Law**. This Agreement shall be governed by, and construed in accordance with, the laws of the State of Delaware, as such laws are applied to contracts entered into and performed in such State.

SECTION 14. ACKNOWLEDGEMENTS OF THE OPTIONEE.

In addition to the other terms, conditions and restrictions imposed on this option and the Shares issuable under this option pursuant to this Agreement and the Plan, the Optionee expressly acknowledges being subject to Sections 7 (Right of Repurchase), 8 (Right of First Refusal), 9 (Legality of Initial Issuance) and 11 (Restrictions on Transfer of Shares, including without limitation the Market Stand-Off), as well as the following provisions:

(a) **Tax Consequences**. The Optionee agrees that the Company does not have a duty to design or administer the Plan or its other compensation programs in a manner that minimizes the Optionee's tax liabilities. The Optionee shall not make any claim against the Company or its Board of Directors, officers or employees related to tax liabilities arising from this option or the Optionee's other compensation. In particular, any Optionee subject to U.S. taxation acknowledges that this option is exempt from Section 409A of the Code only if the Exercise Price is at least equal to the Fair Market Value per Share on the Date of Grant. Since Shares are not traded on an established securities market, the determination of their Fair Market Value is made by the Board of Directors or by an independent valuation firm retained by the Company. The Optionee acknowledges that there is no guarantee in either case that the Internal Revenue Service will agree with the valuation, and the Optionee shall not make any claim against the Company or its Board of Directors, officers or employees in the event that the Internal Revenue Service asserts that the valuation was too low.

(b) **Electronic Delivery of Documents**. The Optionee agrees to accept by email all documents relating to the Company, the Plan or this option and all other documents that the Company is required to deliver to its security holders (including, without limitation, disclosures that may be required by the Securities and Exchange Commission). The Optionee also agrees that the Company may deliver these documents by posting them on a website maintained by the Company or by a third party under contract with the Company. If the Company posts these documents on a website, it shall notify the Optionee by email of their availability. The Optionee acknowledges that he or she may incur costs in connection with electronic delivery, including the cost of accessing the internet and printing fees, and that an interruption of internet access may interfere with his or her ability to access the documents. This consent shall remain in effect until this option expires or until the Optionee gives the Company written notice that it should deliver paper documents.

(c) **No Notice of Expiration Date**. The Optionee agrees that the Company and its officers, employees, attorneys and agents do not have any obligation to notify him or her prior to the expiration of this option pursuant to Section 6, regardless of whether this option will expire at the end of its full term or on an earlier date related to the termination of the Optionee's Service. The Optionee further agrees that he or she has the sole responsibility for monitoring the expiration of this option and for exercising this option, if at all, before it expires. This Subsection (c) shall supersede any contrary representation that may have been made, orally or in writing, by the Company or by an officer, employee, attorney or agent of the Company.

(d) **Waiver of Statutory Information Rights**. The Optionee acknowledges and agrees that, upon exercise of this option and until the first sale of the Company's Stock to the general public pursuant to a registration statement filed under the Securities Act, he or she will be deemed to have waived any rights the Optionee might otherwise have had under Section 220 of the Delaware General Corporation Law (or under similar rights under other applicable law) to inspect for any proper purpose and to make copies and extracts from the Company's stock ledger, a list of its stockholders and its other books and records or the books and records of any subsidiary. This waiver applies only in the Optionee's capacity as a stockholder and does not affect any other inspection rights the Optionee may have under other law or pursuant to a written agreement with the Company.

(e) **Plan Discretionary**. The Optionee understands and acknowledges that (i) the Plan is entirely discretionary, (ii) the Company and the Optionee's employer have reserved the right to amend, suspend or terminate the Plan at any time, (iii) the grant of an option does not in any way create any contractual or other right to receive additional grants of options (or benefits in lieu of options) at any time or in any amount and (iv) all determinations with respect to any additional grants, including (without limitation) the times when options will be granted, the number of Shares offered, the Exercise Price and the vesting schedule, will be at the sole discretion of the Company.

(f) **Termination of Service**. The Optionee understands and acknowledges that participation in the Plan ceases upon termination of his or her Service for any reason, except as may explicitly be provided otherwise in the Plan or this Agreement.

(g) **Extraordinary Compensation**. The value of this option shall be an extraordinary item of compensation outside the scope of the Optionee's employment contract, if any, and shall not be considered a part of his or her normal or expected compensation for purposes of calculating severance, resignation, redundancy or end-of-service payments, bonuses, long-service awards, pension or retirement benefits or similar payments.

(h) **Authorization to Disclose**. The Optionee hereby authorizes and directs the Optionee's employer to disclose to the Company or any Subsidiary any information regarding the Optionee's employment, the nature and amount of the Optionee's compensation and the fact and conditions of the Optionee's participation in the Plan, as the Optionee's employer deems necessary or appropriate to facilitate the administration of the Plan.

(i) **Personal Data Authorization**. The Optionee consents to the collection, use and transfer of personal data as described in this Subsection (i). The Optionee understands and

acknowledges that the Company, the Optionee's employer and the Company's other Subsidiaries hold certain personal information regarding the Optionee for the purpose of managing and administering the Plan, including (without limitation) the Optionee's name, home address, telephone number, date of birth, social insurance number, salary, nationality, job title, any Shares or directorships held in the Company and details of all options or any other entitlements to Shares awarded, canceled, exercised, vested, unvested or outstanding in the Optionee's favor (the "**Data**"). The Optionee further understands and acknowledges that the Company and/or its Subsidiaries will transfer Data among themselves as necessary for the purpose of implementation, administration and management of the Optionee's participation in the Plan and that the Company and/or any Subsidiary may each further transfer Data to any third party assisting the Company in the implementation, administration and management of the Plan. The Optionee understands and acknowledges that the recipients of Data may be located in the United States or elsewhere. The Optionee authorizes such recipients to receive, possess, use, retain and transfer Data, in electronic or other form, for the purpose of administering the Optionee's participation in the Plan, including a transfer to any broker or other third party with whom the Optionee elects to deposit Shares acquired under the Plan of such Data as may be required for the administration of the Plan and/or the subsequent holding of Shares on the Optionee's behalf. The Optionee may, at any time, view the Data, require any necessary modifications of Data or withdraw the consents set forth in this Subsection (i) by contacting the Company in writing.

SECTION 15. DEFINITIONS.

(a) "**Agreement**" shall mean this Stock Option Agreement.

(b) "**Board of Directors**" shall mean the Board of Directors of the Company, as constituted from time to time or, if a Committee has been appointed, such Committee.

(c) "**Company**" shall mean Pipeline Therapeutics, Inc., a Delaware corporation.

(d) "**Immediate Family**" shall mean any child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law or sister-in-law and shall include adoptive relationships.

(e) "**Optionee**" shall mean the person named in the Notice of Stock Option Grant.

(f) "**Plan**" shall mean the Pipeline Therapeutics, Inc. 2012 Equity Incentive Plan, as in effect on the Date of Grant.

(g) "**Purchase Price**" shall mean the Exercise Price multiplied by the number of Shares with respect to which this option is being exercised.

(h) "**Repurchase Period**" shall mean a period of 90 consecutive days commencing on the date when the Optionee's Service terminates for any reason, including (without limitation) death or disability.

(i) "**Restricted Share**" shall mean a Share that is subject to the Right of Repurchase.

(j) "**Right of First Refusal**" shall mean the Company's right of first refusal described in Section 8.

(k) "**Right of Repurchase**" shall mean the Company's right of repurchase described in Section 7.

(l) "**Service**" shall mean service as an Employee, Outside Director or Consultant.

(m) "**Transferee**" shall mean any person to whom the Optionee has directly or indirectly transferred any Share acquired under this Agreement.

(n) "**Transfer Notice**" shall mean the notice of a proposed transfer of Shares described in Section 8.

(o) "**U.S. Person**" shall mean a person described in Rule 902(k) of Regulation S of the Securities Act (or any successor rule or provision), which generally defines a U.S. person as any natural person resident in the United States, any estate of which any executor or administrator is a U.S. Person, or any trust of which of any trustee is a U.S. Person.

PIPELINE THERAPEUTICS, INC. 2012 EQUITY INCENTIVE
NOTICE OF STOCK OPTION EXERCISE (INSTALLMENT EXERCISE)

You must sign this Notice on Page 3 before submitting it to the Company.

OPTIONEE INFORMATION:

Name: _____ Social Security Number: _____

Address: _____ Employee Number: _____

_____

OPTION INFORMATION:

Date of Grant: _____ ___, 20__

Exercise Price per Share: $_____

Total number of shares of Class A Common Stock of Pipeline Therapeutics, Inc. (the "Company") covered by the option: _____

Type of Stock Option:

☐ Nonstatutory (NSO)

☐ Incentive (ISO)

EXERCISE INFORMATION:

Number of shares of Class A Common Stock of the Company for which the option is being exercised now: _____. (These shares are referred to below as the "Purchased Shares.")

Total Exercise Price for the Purchased Shares: $_____

Form of payment enclosed ***[check all that apply]***:

☐ Check for $_____, payable to "Pipeline Therapeutics, Inc."

☐ Certificate(s) for _____ shares of Class A Common Stock of the Company. These shares will be valued as of the date this notice is received by the Company. ***[Requires Company consent.]***

☐ Attestation Form covering _____ shares of Class A Common Stock of the Company. These shares will be valued as of the date this notice is received by the Company. ***[Requires Company consent.]***

Name(s) in which the Purchased Shares should be registered ***[please review the attached explanation of the available forms of ownership, and then check one box]***:

☐ In my name only

☐ In the names of my spouse and myself as community property

☐ In the names of my spouse and myself as community property with the right of survivorship

☐ In the names of my spouse and myself as joint tenants with the right of survivorship

☐ In the name of an eligible revocable trust ***[requires Stock Transfer Agreement]***

My spouse's name (if applicable):

_____

Full legal name of revocable trust:

_____

_____

_____

The certificate for the Purchased Shares should be sent to the following address:

_____

_____

_____

_____

REPRESENTATIONS AND ACKNOWLEDGEMENTS OF THE OPTIONEE:

1. I represent and warrant to the Company that I am acquiring and will hold the Purchased Shares for investment for my account only, and not with a view to, or for resale in connection with, any "distribution" of the Purchased Shares within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

2. I understand that my purchase of the Purchased Shares has not been registered under the Securities Act by reason of a specific exemption therefrom and that the Purchased Shares must be held indefinitely, unless they are subsequently registered under the Securities Act or I obtain an opinion of counsel (in form and substance satisfactory to the Company and its counsel) that registration is not required.

3. I acknowledge that the Company is under no obligation to register the Purchased Shares or any sale or transfer thereof.

4. I am aware of Rule 144 under the Securities Act, which permits limited public resales of securities acquired in a non-public offering, subject to the satisfaction of certain conditions. These conditions may include (without limitation) that certain current public information about the issuer be available, that the resale occur only after a holding period required by Rule 144 has been satisfied, that the sale occur through an unsolicited "broker's transaction" and that the amount of securities being sold during any three-month period not exceed specified limitations. I understand that the conditions for resale set forth in Rule 144 have not been satisfied as of the date set forth below, and that the Company is not required to take action to satisfy any conditions applicable to it.

5. I will not sell, transfer or otherwise dispose of the Purchased Shares in violation of the Securities Act, the Securities Exchange Act of 1934, or the rules promulgated thereunder, including Rule 144 under the Securities Act.

6. I acknowledge that I have received and had access to such information as I consider necessary or appropriate for deciding whether to invest in the Purchased Shares and that I had an opportunity to ask

questions and receive answers from the Company regarding the terms and conditions of the issuance of the Purchased Shares.

7. I am aware that my investment in the Company is a speculative investment that has limited liquidity and is subject to the risk of complete loss. I am able, without impairing my financial condition, to hold the Purchased Shares for an indefinite period and to suffer a complete loss of my investment in the Purchased Shares.

8. I acknowledge that the Purchased Shares remain subject to the Company's right of first refusal and the market stand-off (sometimes referred to as the "lock-up"), all in accordance with the applicable Notice of Stock Option Grant and Stock Option Agreement.

9. I acknowledge that I am acquiring the Purchased Shares subject to all other terms of the Notice of Stock Option Grant and Stock Option Agreement.

10. I acknowledge that I have received a copy of the Company's explanation of the forms of ownership available for my Purchased Shares. I acknowledge that the Company has encouraged me to consult my own adviser to determine the form of ownership that is appropriate for me. In the event that I choose to transfer my Purchased Shares to a trust, I agree to sign a Stock Transfer Agreement. In the event that I choose to transfer my Purchased Shares to a trust that does not satisfy the requirements described in the attached explanation (i.e., a trust that is not an eligible revocable trust), I also acknowledge that the transfer will be treated as a "disposition" for tax purposes. As a result, the favorable ISO tax treatment will be unavailable and other unfavorable tax consequences may occur.

11. I acknowledge that I have received a copy of the Company's explanation of the federal income tax consequences of an option exercise. I acknowledge that the Company has encouraged me to consult my own adviser to determine the tax consequences of acquiring the Purchased Shares at this time.

12. I agree that the Company does not have a duty to design or administer the 2012 Equity Incentive Plan or its other compensation programs in a manner that minimizes my tax liabilities. I will not make any claim against the Company or its Board of Directors, officers or employees related to tax liabilities arising from my options or my other compensation. In particular, I acknowledge that my options are exempt from section 409A of the Internal Revenue Code only if the exercise price per share is at least equal to the fair market value per share of the Company's Class A Common Stock at the time the option was granted by the Company's Board of Directors. Since shares of the Company's Class A Common Stock are not traded on an established securities market, the determination of their fair market value was made by the Company's Board of Directors or by an independent valuation firm retained by the Company. I acknowledge that there is no guarantee in either case that the Internal Revenue Service will agree with the valuation, and I will not make any claim against the Company or its Board of Directors, officers or employees in the event that the Internal Revenue Service asserts that the valuation was too low.

13. I agree to seek the consent of my spouse to the extent required by the Company to enforce the foregoing.

SIGNATURE: **DATE:**

EXPLANATION OF FORMS OF STOCK OWNERSHIP

PURPOSE OF THIS EXPLANATION

The purpose of this explanation is to provide you with a brief summary of the forms of legal ownership available for the shares that you are purchasing (the "Purchased Shares"). For a number of reasons, this explanation is no substitute for personal legal advice:

- To make the explanation short and readable, only the highlights are covered. Some legal rules are not addressed, even though they may be important in particular cases.
- While the summary attempts to deal with the most common situations, your own situation may well be different from the norm.
- The law may change, and the Company is not responsible for updating this summary.
- The form in which you own your shares may have a *substantial* impact on the estate tax treatment that applies to those shares when you die or the income tax treatment that applies when your survivors sell the shares after your death.

FOR THESE REASONS, THE COMPANY STRONGLY ENCOURAGES YOU TO CONSULT YOUR OWN ADVISER BEFORE EXERCISING YOUR OPTION AND BEFORE MAKING A DECISION ABOUT THE FORM OF OWNERSHIP FOR YOUR SHARES.

OVERVIEW

The Notice of Stock Option Exercise offers five forms of taking title to the Purchased Shares:

- In your name only,
- In your name and the name of your spouse as community property,
- In your name and the name of your spouse as community property with the right of survivorship,
- In your name and the name of your spouse as joint tenants with the right of survivorship, or
- In the name of an eligible revocable trust.

Title in the Purchased Shares depends upon (a) your marital status, (b) the marital property laws of your state of residence and (c) any agreement with your spouse altering the existing marital property laws of your state of residence. If you are not married, you generally will take title in your name alone. If you are married, title depends upon the marital property laws of your state of residence. In general, states are classified either as "community property" states or as "common-law property" states. (But individual state law may vary within these classifications.)

COMMUNITY PROPERTY AND JOINT TENANCY

Community property states include California, Texas, Washington, Arizona, Nevada, New Mexico, Idaho, Louisiana and Wisconsin. In a community property state, property acquired during marriage by either spouse is presumed to be one-half owned by each spouse. All other property is classified as the separate property of the spouse who acquires the property. While either spouse has equal management and control over the community property and may sell, spend or encumber all community property, neither spouse may gift community property or partition his/her one-half interest without the consent of the other spouse. Upon divorce, all community property is divided equally among the spouses and each spouse is entitled to retain all of his/her separate property. Upon the death of a spouse, one-half of the community property (and all of the decedent spouse's separate property) will pass to the decedent spouse's heirs. The other one-half of the community property remains the property of the surviving spouse.

Other states are common-law property states. In a common-law property state, each spouse is generally deemed to own whatever he/she earns or acquires.

A married couple may elect to alter the marital property rules by mutually agreeing to take title to property in other forms. For example, a couple residing in a community property state may generally enter into an agreement and transform what otherwise would be community property into the separate property of the spouse who earns or acquires the property.

In addition, many community property and common-law property states allow married couples to take joint title in property acquired during marriage. For example, California allows a married couple to take title in a joint tenancy with the right of survivorship. In a joint tenancy, each spouse owns a one-half interest in the property as separate property. This means that each spouse may transfer or sell his/her one-half interest in the property while he/she is alive. However, unlike traditional separate property, a spouse cannot transfer his/her one-half interest to heirs at death. Instead, the surviving spouse *automatically* receives the decedent spouse's one-half interest and becomes the full owner of the property. (This is called the "right of survivorship.") Both spouses must consent to taking property in a joint tenancy in lieu of having the community property laws apply.

California also allows a married couple to take title in the shares as community property with the right of survivorship. This means that the shares are treated like community property while both spouses are alive. However, if one spouse dies, then the other spouse automatically receives the decedent spouse's one-half interest and becomes the full owner of the shares. In other words, the decedent spouse's will or trust does *not* control the disposition of the shares.

If you have the Purchased Shares issued in a form other than those described above, then the transfer will be treated as a "disposition" for tax purposes. This means that the effect, for tax purposes, will be the same as selling the Purchased Shares. Please refer to the attached tax summary for additional information.

TRUSTS

A transfer to a trust generally should not be treated as a "disposition" of the Purchased Shares for tax purposes if the trust satisfies each of the following conditions:

- You are the sole grantor of the trust,
- You are the sole trustee, or you and your spouse are the sole co-trustees,
- The trustee or trustees are not required to distribute the income of the trust to any person other than you and/or your spouse while you are alive, and
- The trust permits you to revoke all or part of the trust and to have the trust's assets returned to you, without the consent of any other person (including your spouse).

If you have the Purchased Shares issued to a trust that does not meet these requirements, then the transfer will be treated as a "disposition" for tax purposes. This means that the effect, for tax purposes, will be the same as selling the Purchased Shares. Please refer to the attached tax summary for additional information.

If you have the Purchased Shares issued to any trust, you will be required to sign a Stock Transfer Agreement in your capacity as trustee. Under the Stock Transfer Agreement, the Purchased Shares remain subject to the Company's right of first refusal in accordance with the applicable Notice of Stock Option Grant and Stock Option Agreement.

THE COMPANY WILL NOT CHECK TO DETERMINE WHETHER THE FORM OF OWNERSHIP THAT YOU ELECT IN YOUR NOTICE OF STOCK OPTION EXERCISE IS APPROPRIATE. YOU SHOULD CONSULT YOUR OWN ADVISERS ON THIS SUBJECT. IF AN INAPPROPRIATE ELECTION IS MADE, THE FORM OF OWNERSHIP MAY NOT WITHSTAND LEGAL SCRUTINY OR MAY HAVE ADVERSE TAX CONSEQUENCES.

EXPLANATION OF U.S. FEDERAL INCOME TAX CONSEQUENCES

(Current as of January 2018)

PURPOSE OF THIS EXPLANATION

The purpose of this explanation is to provide you with a brief summary of the tax consequences of exercising your option. For a number of reasons, this explanation is no substitute for personal tax advice:

- To make the explanation short and readable, only the highlights are covered. Some tax rules are not addressed, even though they may be important in particular cases.
- While the summary attempts to deal with the most common situations, your own tax situation may well be different from the norm.
- State and foreign income taxes are not addressed at all, even though they could have a significant impact on your tax planning. Likewise, federal gift and estate taxes and state inheritance taxes are not discussed.
- Tax planning involving incentive stock options is exceedingly complex, in part because of the possible application of the alternative minimum tax.
- This explanation assumes that your option is not subject to section 409A of the Internal Revenue Code. However, the Company cannot be certain that section 409A is inapplicable to your option. (Please refer to the last segment of this summary for more information about section 409A.)
- The tax rules change often, and the Company is not responsible for updating this summary. (Please refer to the date at the top of this page.)

FOR THESE REASONS, THE COMPANY STRONGLY ENCOURAGES YOU TO CONSULT YOUR OWN TAX ADVISER BEFORE EXERCISING YOUR OPTION.

EXERCISE OF NSO

If you are exercising an NSO, you generally will be taxed at the time of exercise. You will recognize ordinary income in an amount equal to the excess of (a) the fair market value of the Purchased Shares on the date of exercise over (b) the exercise price you are paying. If you are an employee or former employee of the Company, this amount is subject to withholding for income and payroll taxes. Your tax basis in the Purchased Shares (to calculate capital gain when you sell the shares) is equal to the sum of the exercise price you paid for the Purchased Shares plus any additional amount you recognized as income on the exercise date.

DISPOSITION OF NSO SHARES

When you dispose of the Purchased Shares, you will recognize a capital gain equal to the excess of (a) the sale proceeds over (b) your tax basis in the Purchased Shares. If the sale proceeds are less than your tax basis, you will recognize a capital loss. The capital gain or loss will be long-term if you held the Purchased Shares for more than 12 months. The holding period starts when you exercise your NSO. In general, the maximum marginal federal income tax rate on long-term capital gains is 20% under current law, but lower long-term capital gain rates may apply to certain taxpayers.

Effective January 1, 2013, as a result of the Health Care and Education Reconciliation Act of 2010, an additional Medicare contribution tax is imposed at a rate of 3.8% on the "net investment income" of individuals with adjusted gross incomes in excess of $200,000 ($250,000 in the case of a joint return, and $125,000 in the case of a married taxpayer filing separately). "Net investment income" includes income from interest, dividends, and capital gains, reduced by the deductions properly allocated to such income.

Depending on the level of your adjusted gross income, the additional Medicare contribution tax may be imposed on any short-term and long-term capital gain income and can increase your marginal tax rate.

LIMIT ON ISO TREATMENT

The Notice of Stock Option Grant indicates whether your option is a nonstatutory stock option (NSO) or an incentive stock option (ISO). The favorable tax treatment for ISOs is limited, regardless of what the Notice of Stock Option Grant indicates. Of the options that become exercisable in any calendar year, only options covering the first $100,000 of stock are eligible for ISO treatment. The excess over $100,000 automatically receives NSO treatment. For this purpose, stock is valued at the time of grant. This means that the value is generally equal to the exercise price.

For example, assume that you hold an option to buy 60,000 shares for $8 per share. Assume further that the entire option becomes exercisable in four equal annual installments. Only the first 50,000 shares qualify for ISO treatment. (12,500 times $8 equals $100,000.) The remaining 10,000 shares will be treated as if they had been acquired by exercising an NSO. This is true regardless of when the option is *actually* exercised; what matters is when it first *could* have been exercised.

EXERCISE OF ISO AND ISO HOLDING PERIODS

If you are exercising an ISO, you will not be taxed under the *regular* tax rules until you dispose of the Purchased Shares.[1] (The alternative minimum tax rules are described below.) The tax

[1] Generally, a "disposition" of shares purchased under an ISO encompasses any transfer of legal title, such as a transfer by sale, exchange or gift. It generally does not include a transfer to your spouse, a transfer into joint ownership with right of survivorship (if you remain one of the joint owners), a pledge, a transfer by bequest or inheritance, or certain tax-free exchanges permitted under the Internal Revenue Code. A transfer to a trust is a "disposition" unless the trust is an eligible revocable trust, as described in the attached explanation.

treatment at the time of disposition depends on how long you hold the shares. You will satisfy the ISO holding periods if you hold the Purchased Shares until the *later* of the following dates:

- More than two years after the ISO was granted, and
- More than one year after the ISO is exercised.

DISPOSITION OF ISO SHARES

If you dispose of the Purchased Shares after satisfying *both* of the ISO holding periods, then you will recognize only a long-term capital gain at the time of disposition. The amount of the capital gain is equal to the excess of (a) the sale proceeds over (b) the exercise price. In general, the maximum marginal federal income tax rate on long-term capital gains is 20% under current law, but lower long-term capital gain rates may apply to certain taxpayers.

Effective January 1, 2013, as a result of the Health Care and Education Reconciliation Act of 2010, an additional Medicare contribution tax is imposed at a rate of 3.8% on the "net investment income" of individuals with adjusted gross incomes in excess of $200,000 ($250,000 in the case of a joint return, and $125,000 in the case of a married taxpayer filing separately). "Net investment income" includes income from interest, dividends, and capital gains, reduced by the deductions properly allocated to such income.

If you dispose of the Purchased Shares before either or both of the ISO holding periods are met, then you will recognize ordinary income at the time of disposition. The amount of ordinary income will be equal to the excess of (a) the fair market value of the Purchased Shares on the date of exercise over (b) the exercise price. But if the disposition is an arm's length sale to an unrelated party, the amount of ordinary income will not exceed the total gain from the sale. Under current IRS rules, the ordinary income amount will not be subject to withholding for income or payroll taxes.

Your tax basis in the Purchased Shares will be equal to the sum of the exercise price you paid for the Purchased Shares plus any additional amount you recognized as ordinary income. Any gain in excess of your basis will be taxed as a capital gain—either long-term or short-term, depending on how long you held the Purchased Shares after the date of exercise.

SUMMARY OF ALTERNATIVE MINIMUM TAX

The alternative minimum tax (AMT) must be paid to the extent that it exceeds your regular federal income tax for the year. For 2018, the first $191,500 ($95,750 for a married taxpayer filing a separate return) of your alternative minimum taxable income for the year over the allowable exemption amount (see below) is subject to alternative minimum taxation at the rate of 26%. The balance of your alternative minimum taxable income is subject to alternative minimum taxation at the rate of 28%. The dollar thresholds dividing the 26% and 28% rates are indexed for inflation in future years. Your alternative minimum tax base is equal to your alternative minimum taxable income (AMTI) minus your exemption amount.

- **Alternative Minimum Taxable Income**. Your AMTI is equal to your regular taxable income, subject to certain adjustments and increased by items of tax preference. Among the many adjustments made in computing AMTI are the following:
  - State and local income and property taxes are not allowed as a deduction.
  - Certain interest and other deductions are not allowed.
  - When an ISO is exercised, the spread is added to income for AMT purposes. (See discussion below.)
- **Exemption Amount**. Before AMT is calculated, AMTI is reduced by the exemption amount. Under current law, the exemption amount is as follows:

Year:	Joint Returns:	Single Returns:	Separate Returns:
2018[2]	$109,400	$70,300	$54,700

The allowable exemption amount is reduced by $0.25 for each $1.00 by which alternative minimum taxable income for the year exceeds the following amounts:

Year:	Joint Returns:	Single Returns:	Separate Returns:
2018[3]	$1,000,000	$500,000	$500,000

This means, for example, in 2018, the $109,400 exemption amount is phased out completely for married individuals filing joint returns when their alternative minimum taxable income reaches $1,437,600 [($109,400 ÷ $0.25) + $1,000,000].

APPLICATION OF AMT WHEN ISO IS EXERCISED

As noted above, when an ISO is exercised, the spread is included in AMTI at the time of exercise.

A special rule applies if you dispose of the Purchased Shares in the same year in which you exercised the ISO. If the amount you realize on the sale is less than the value of the stock at the time of exercise, then the amount includible in AMTI on account of the ISO exercise is limited to the gain realized on the sale.[4]

To the extent that your AMT is attributable to the spread on exercising an ISO (and certain other items), you may be able to apply the AMT that you paid as a credit against your income tax liability in future years. But the rules on calculating the available tax credits were amended frequently in

2 Amounts are indexed for inflation in future years.
3 Amounts are indexed for inflation in future years.
4 This is similar to the rule that applies under the regular tax system in the event of a disqualifying disposition of ISO stock. The amount of ordinary income that must be recognized in that case generally does not exceed the amount of the gain realized in the disposition.

recent years and have become extraordinarily complex. On this issue in particular, you must consult your own tax adviser.

When Purchased Shares are sold, your basis for purposes of computing the capital gain or loss under the AMT system is increased by the option spread that exists at the time of exercise. Again, an ISO is treated under the AMT system much like an NSO is treated under the regular tax system. But your basis in the ISO shares for purposes of computing gain or loss under the regular tax system does *not* reflect any AMT that you pay on the spread at exercise. Therefore, if you pay AMT in the year of the ISO exercise and regular income tax in the year of selling the Purchased Shares, you could pay tax twice on the same gain (except to the extent that you can use the AMT credit described above).

SECTION 409A OF THE INTERNAL REVENUE CODE

The preceding summary assumes that section 409A of the Internal Revenue Code does not apply to your option. In general, your option is exempt from section 409A if the exercise price per share is at least equal to the fair market value per share of the Company's Common Stock at the time the option was granted by the Board of Directors. Since shares of Common Stock are not traded on an established securities market, the determination of their fair market value generally is made by the Board of Directors or by an independent appraisal firm retained by the Company. In either case, there is no guarantee that the Internal Revenue Service will agree with the valuation.

If your option were found to be subject to section 409A, then you would be required to recognize ordinary income as early as the year in which the option (or portion thereof) vests. This amount would also be subject to a 20% federal tax *in addition to* the federal income tax at your usual marginal rate for ordinary income. Additional state income taxes may apply in some states.

DISCLAIMER UNDER IRS CIRCULAR 230

To ensure compliance with requirements imposed by U.S. tax authorities, we inform you that any U.S. tax advice contained in the foregoing summary is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding United States federal, state or local tax penalties, or (ii) promoting, marketing or recommending to another party any matters addressed herein (including any attachments).

PIPELINE THERAPEUTICS, INC. 2012 EQUITY INCENTIVE PLAN
NOTICE OF STOCK OPTION EXERCISE (EARLY EXERCISE)

You must sign this Notice on Page 3 before submitting it to the Company.

OPTIONEE INFORMATION:

Name: _____ Social Security Number: _____

Address: _____ Employee Number: _____

_____

OPTION INFORMATION:

Date of Grant: _____ ___, 20__

Exercise Price per Share: $_____

Total number of shares of Class A Common Stock of Pipeline Therapeutics, Inc. (the "Company") covered by the option: _____

Type of Stock Option:

☐ Nonstatutory (NSO)

☐ Incentive (ISO)

EXERCISE INFORMATION:

Number of shares of Class A Common Stock of the Company for which the option is being exercised now: _____. (These shares are referred to below as the "Purchased Shares.")

Total Exercise Price for the Purchased Shares: $_____

Form of payment enclosed ***[check all that apply]***:

☐ Check for $_____, payable to "Pipeline Therapeutics, Inc."

☐ Certificate(s) for _____ shares of Class A Common Stock of the Company. These shares will be valued as of the date this notice is received by the Company. ***[Requires Company consent.]***

☐ Attestation Form covering _____ shares of Class A Common Stock of the Company. These shares will be valued as of the date this notice is received by the Company. ***[Requires Company consent.]***

Name(s) in which the Purchased Shares should be registered ***[please review the attached explanation of the available forms of ownership, and then check one box]***:

☐ In my name only

☐ In the names of my spouse and myself as community property

☐ In the names of my spouse and myself as community property with the right of survivorship

My spouse's name (if applicable):

_____

☐ In the names of my spouse and myself as joint tenants with the right of survivorship

☐ In the name of an eligible revocable trust ***[requires Stock Transfer Agreement]***

Full legal name of revocable trust: _____

The certificate for the Purchased Shares should be sent to the following address: _____

REPRESENTATIONS AND ACKNOWLEDGEMENTS OF THE OPTIONEE:

1. I represent and warrant to the Company that I am acquiring and will hold the Purchased Shares for investment for my account only, and not with a view to, or for resale in connection with, any "distribution" of the Purchased Shares within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

2. I understand that my purchase of the Purchased Shares has not been registered under the Securities Act by reason of a specific exemption therefrom and that the Purchased Shares must be held indefinitely, unless they are subsequently registered under the Securities Act or I obtain an opinion of counsel (in form and substance satisfactory to the Company and its counsel) that registration is not required.

3. I acknowledge that the Company is under no obligation to register the Purchased Shares or any sale or transfer thereof.

4. I am aware of Rule 144 under the Securities Act, which permits limited public resales of securities acquired in a non-public offering, subject to the satisfaction of certain conditions. These conditions may include (without limitation) that certain current public information about the issuer be available, that the resale occur only after a holding period required by Rule 144 has been satisfied, that the sale occur through an unsolicited "broker's transaction" and that the amount of securities being sold during any three-month period not exceed specified limitations. I understand that the conditions for resale set forth in Rule 144 have not been satisfied as of the date set forth below and that the Company is not required to take action to satisfy any conditions applicable to it.

5. I will not sell, transfer or otherwise dispose of the Purchased Shares in violation of the Securities Act, the Securities Exchange Act of 1934, or the rules promulgated thereunder, including Rule 144 under the Securities Act.

6. I acknowledge that I have received and had access to such information as I consider necessary or appropriate for deciding whether to invest in the Purchased Shares and that I had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the issuance of the Purchased Shares.

7. I am aware that my investment in the Company is a speculative investment that has limited liquidity and is subject to the risk of complete loss. I am able, without impairing my financial condition, to hold the Purchased Shares for an indefinite period and to suffer a complete loss of my investment in the Purchased Shares.

8. I acknowledge that the Purchased Shares remain subject to the Company's right of first refusal and the market stand-off (sometimes referred to as the "lock-up") and may remain subject to the Company's

right of repurchase, all in accordance with the applicable Notice of Stock Option Grant and Stock Option Agreement.

9. I acknowledge that I am acquiring the Purchased Shares subject to all other terms of the Notice of Stock Option Grant and Stock Option Agreement.

10. I acknowledge that I have received a copy of the Company's explanation of the forms of ownership available for my Purchased Shares. I acknowledge that the Company has encouraged me to consult my own adviser to determine the form of ownership that is appropriate for me. In the event that I choose to transfer my Purchased Shares to a trust, I agree to sign a Stock Transfer Agreement. In the event that I choose to transfer my Purchased Shares to a trust that does not satisfy the requirements described in the attached explanation (i.e., a trust that is not an eligible revocable trust), I also acknowledge that the transfer will be treated as a "disposition" for tax purposes. As a result, the favorable ISO tax treatment will be unavailable and other unfavorable tax consequences may occur.

11. I acknowledge that I have received a copy of the Company's explanation of the federal income tax consequences of an option exercise and the tax election under section 83(b) of the Internal Revenue Code. In the event that I choose to make a section 83(b) election, I acknowledge that it is my responsibility—and not the Company's responsibility—to file the election in a timely manner, even if I ask the Company or its agents to make the filing on my behalf. I acknowledge that the Company has encouraged me to consult my own adviser to determine the tax consequences of acquiring the Purchased Shares at this time.

12. I agree that the Company does not have a duty to design or administer the 2012 Equity Incentive Plan or its other compensation programs in a manner that minimizes my tax liabilities. I will not make any claim against the Company or its Board of Directors, officers or employees related to tax liabilities arising from my options or my other compensation. In particular, I acknowledge that my options are exempt from section 409A of the Internal Revenue Code only if the exercise price per share is at least equal to the fair market value per share of the Company's Class A Common Stock at the time the option was granted by the Company's Board of Directors. Since shares of the Company's Class A Common Stock are not traded on an established securities market, the determination of their fair market value was made by the Company's Board of Directors or by an independent valuation firm retained by the Company. I acknowledge that there is no guarantee in either case that the Internal Revenue Service will agree with the valuation, and I will not make any claim against the Company or its Board of Directors, officers or employees in the event that the Internal Revenue Service asserts that the valuation was too low.

13. I agree to seek the consent of my spouse to the extent required by the Company to enforce the foregoing.

SIGNATURE: **DATE:**

EXPLANATION OF FORMS OF STOCK OWNERSHIP

PURPOSE OF THIS EXPLANATION

The purpose of this explanation is to provide you with a brief summary of the forms of legal ownership available for the shares that you are purchasing (the "Purchased Shares"). For a number of reasons, this explanation is no substitute for personal legal advice:

- To make the explanation short and readable, only the highlights are covered. Some legal rules are not addressed, even though they may be important in particular cases.
- While the summary attempts to deal with the most common situations, your own situation may well be different from the norm.
- The law may change, and the Company is not responsible for updating this summary.
- The form in which you own your shares may have a *substantial* impact on the estate tax treatment that applies to those shares when you die or the income tax treatment that applies when your survivors sell the shares after your death.

FOR THESE REASONS, THE COMPANY STRONGLY ENCOURAGES YOU TO CONSULT YOUR OWN ADVISER BEFORE EXERCISING YOUR OPTION AND BEFORE MAKING A DECISION ABOUT THE FORM OF OWNERSHIP FOR YOUR SHARES.

OVERVIEW

The Notice of Stock Option Exercise offers five forms of taking title to the Purchased Shares:

- In your name only,
- In your name and the name of your spouse as community property,
- In your name and the name of your spouse as community property with the right of survivorship,
- In your name and the name of your spouse as joint tenants with the right of survivorship, or
- In the name of an eligible revocable trust.

Title in the Purchased Shares depends upon (a) your marital status, (b) the marital property laws of your state of residence and (c) any agreement with your spouse altering the existing marital property laws of your state of residence. If you are not married, you generally will take title in your name alone. If you are married, title depends upon the marital property laws of your state of residence. In general, states are classified either as "community property" states or as "common-law property" states. (But individual state law may vary within these classifications.)

COMMUNITY PROPERTY AND JOINT TENANCY

Community property states include California, Texas, Washington, Arizona, Nevada, New Mexico, Idaho, Louisiana and Wisconsin. In a community property state, property acquired during marriage by either spouse is presumed to be one-half owned by each spouse. All other property is classified as the separate property of the spouse who acquires the property. While either spouse has equal management and control over the community property and may sell, spend or encumber all community property, neither spouse may gift community property or partition his/her one-half interest without the consent of the other spouse. Upon divorce, all community property is divided equally among the spouses and each spouse is entitled to retain all of his/her separate property. Upon the death of a spouse, one-half of the community property (and all of the decedent spouse's separate property) will pass to the decedent spouse's heirs. The other one-half of the community property remains the property of the surviving spouse.

Other states are common-law property states. In a common-law property state, each spouse is generally deemed to own whatever he/she earns or acquires.

A married couple may elect to alter the marital property rules by mutually agreeing to take title to property in other forms. For example, a couple residing in a community property state may generally enter into an agreement and transform what otherwise would be community property into the separate property of the spouse who earns or acquires the property.

In addition, many community property and common-law property states allow married couples to take joint title in property acquired during marriage. For example, California allows a married couple to take title in a joint tenancy with the right of survivorship. In a joint tenancy, each spouse owns a one-half interest in the property as separate property. This means that each spouse may transfer or sell his/her one-half interest in the property while he/she is alive. However, unlike traditional separate property, a spouse cannot transfer his/her one-half interest to heirs at death. Instead, the surviving spouse *automatically* receives the decedent spouse's one-half interest and becomes the full owner of the property. (This is called the "right of survivorship.") Both spouses must consent to taking property in a joint tenancy in lieu of having the community property laws apply.

California also allows a married couple to take title in the shares as community property with the right of survivorship. This means that the shares are treated like community property while both spouses are alive. However, if one spouse dies, then the other spouse automatically receives the decedent spouse's one-half interest and becomes the full owner of the shares. In other words, the decedent spouse's will or trust does *not* control the disposition of the shares.

If you have the Purchased Shares issued in a form other than those described above, then the transfer will be treated as a "disposition" for tax purposes. This means that the effect, for tax purposes, will be the same as selling the Purchased Shares. Please refer to the attached tax summary for additional information.

TRUSTS

A transfer to a trust generally should not be treated as a "disposition" of the Purchased Shares for tax purposes if the trust satisfies each of the following conditions:

- You are the sole grantor of the trust,
- You are the sole trustee, or you and your spouse are the sole co-trustees,
- The trustee or trustees are not required to distribute the income of the trust to any person other than you and/or your spouse while you are alive, and
- The trust permits you to revoke all or part of the trust and to have the trust's assets returned to you, without the consent of any other person (including your spouse).

If you have the Purchased Shares issued to a trust that does not meet these requirements, then the transfer will be treated as a "disposition" for tax purposes. This means that the effect, for tax purposes, will be the same as selling the Purchased Shares. Please refer to the attached tax summary for additional information.

If you have the Purchased Shares issued to any trust, you will be required to sign a Stock Transfer Agreement in your capacity as trustee. Under the Stock Transfer Agreement, the Purchased Shares remain subject to the Company's right of first refusal and may remain subject to the Company's right of repurchase, all in accordance with the applicable Notice of Stock Option Grant and Stock Option Agreement.

THE COMPANY WILL NOT CHECK TO DETERMINE WHETHER THE FORM OF OWNERSHIP THAT YOU ELECT IN YOUR NOTICE OF STOCK OPTION EXERCISE IS APPROPRIATE. YOU SHOULD CONSULT YOUR OWN ADVISERS ON THIS SUBJECT. IF AN INAPPROPRIATE ELECTION IS MADE, THE FORM OF OWNERSHIP MAY NOT WITHSTAND LEGAL SCRUTINY OR MAY HAVE ADVERSE TAX CONSEQUENCES.

EXPLANATION OF FEDERAL INCOME TAX CONSEQUENCES
AND SECTION 83(b) ELECTION
(Current as of January 2018)

PURPOSE OF THIS EXPLANATION

The purpose of this explanation is to provide you with a brief summary of the tax consequences of exercising your option. For a number of reasons, this explanation is no substitute for personal tax advice:

- To make the explanation short and readable, only the highlights are covered. Some tax rules are not addressed, even though they may be important in particular cases.
- While the summary attempts to deal with the most common situations, your own tax situation may well be different from the norm.
- State and foreign income taxes are not addressed at all, even though they could have a significant impact on your tax planning. Likewise, federal gift and estate taxes and state inheritance taxes are not discussed.
- Tax planning involving incentive stock options is exceedingly complex, in part because of the possible application of the alternative minimum tax.
- The explanation assumes that you are paying the exercise price of your option in cash (or in the form of a full-recourse promissory note with an interest rate that meets IRS requirements). If you are paying the exercise price in the form of stock, you become subject to special rules that are not addressed here.
- This explanation assumes that your option is not subject to section 409A of the Internal Revenue Code. However, the Company cannot be certain that section 409A is inapplicable to your option. (Please refer to the last segment of this summary for more information about section 409A.)
- The tax rules change often, and the Company is not responsible for updating this summary. (Please refer to the date at the top of this page.)

FOR THESE REASONS, THE COMPANY STRONGLY ENCOURAGES YOU TO CONSULT YOUR OWN TAX ADVISER BEFORE EXERCISING YOUR OPTION AND BEFORE MAKING A DECISION ABOUT FILING OR NOT FILING A SECTION 83(b) ELECTION.

EXERCISE OF NSO TO PURCHASE VESTED SHARES

The Notice of Stock Option Grant indicates whether your Purchased Shares are already vested. Vested shares are no longer subject to the Company's right to repurchase them, although they are

still subject to the Company's right of first refusal. If you know that your Purchased Shares are already vested, there is no need to file a section 83(b) election.

If you are exercising an NSO to purchase vested shares, you generally will be taxed at the time of exercise. You will recognize ordinary income in an amount equal to the excess of (a) the fair market value of the Purchased Shares on the date of exercise over (b) the exercise price you are paying. If you are an employee or former employee of the Company, this amount is subject to withholding for income and payroll taxes. Your tax basis in the Purchased Shares (to calculate capital gain when you sell the shares) is equal to the sum of the exercise price you paid for the Purchased Shares plus any additional amount you recognized as income on the exercise date.

EXERCISE OF NSO TO PURCHASE NON-VESTED SHARES

If you are exercising an NSO to purchase non-vested shares, and if you do not file a timely election under section 83(b) of the Internal Revenue Code, then you will not be taxed at the time of exercise. Instead, you will be taxed whenever an increment of Purchased Shares vests—in other words, when the Company no longer has the right to repurchase those shares. The Notice of Stock Option Grant indicates when this occurs, generally over a period of several years. Whenever an increment of Purchased Shares vests, you will recognize ordinary income in an amount equal to the excess of (a) the fair market value of those Purchased Shares on the date of vesting over (b) the exercise price you are paying for those Purchased Shares. If you are an employee or former employee of the Company, this amount will be subject to withholding for income and payroll taxes. Your tax basis in the Purchased Shares (to calculate capital gain when you sell the shares) will be equal to the sum of the exercise price you paid for the Purchased Shares plus any additional amount you recognized as income on each vesting date.

If you are exercising an NSO to purchase non-vested shares, and if you file a timely election under section 83(b) of the Internal Revenue Code, then you will be taxed at the time of exercise. You will recognize ordinary income in an amount equal to the excess of (a) the fair market value of the Purchased Shares on the date of exercise over (b) the exercise price you are paying. If you are an employee or former employee of the Company, this amount is subject to withholding for income and payroll taxes. Your tax basis in the Purchased Shares (to calculate capital gain when you sell the shares) is equal to the sum of the exercise price you paid for the Purchased Shares plus any additional amount you recognized as income as a result of filing the section 83(b) election. Even if the fair market value of the Purchased Shares on the date of exercise equals the exercise price (and thus no tax is payable), the section 83(b) election must be made in order to avoid having any subsequent appreciation taxed as ordinary income at the time of vesting.

YOU MUST FILE A SECTION 83(b) ELECTION WITH THE INTERNAL REVENUE SERVICE WITHIN 30 DAYS AFTER THE NOTICE OF STOCK OPTION EXERCISE IS SIGNED. The 30-day filing period cannot be extended. If you miss the deadline, you will be taxed as the Purchased Shares vest, based on the value of the shares at that time. (See above.) The form for making the 83(b) election is attached. Additional copies of the form must be filed with the Company.

DISPOSITION OF NSO SHARES

When you dispose of the Purchased Shares, you will recognize a capital gain equal to the excess of (a) the sale proceeds over (b) your tax basis in the Purchased Shares. If the sale proceeds are less than your tax basis, you will recognize a capital loss. The capital gain or loss will be long-term if you held the Purchased Shares for more than 12 months. The holding period normally starts when you exercise your NSO. In general, the maximum marginal federal income tax rate on long-term capital gains is 20% under current law, but lower long-term capital gain rates may apply to certain taxpayers.

Effective January 1, 2013, as a result of the Health Care and Education Reconciliation Act of 2010, an additional Medicare contribution tax is imposed at a rate of 3.8% on the "net investment income" of individuals with adjusted gross incomes in excess of $200,000 ($250,000 in the case of a joint return, and $125,000 in the case of a married taxpayer filing separately). "Net investment income" includes income from interest, dividends, and capital gains, reduced by the deductions properly allocated to such income.

Depending on the level of your adjusted gross income, the additional Medicare contribution tax may be imposed on any short-term and long-term capital gain income and can increase your marginal tax rate.

LIMIT ON ISO TREATMENT

The Notice of Stock Option Grant indicates whether your option is a nonstatutory stock option (NSO) or an incentive stock option (ISO). The favorable tax treatment for ISOs is limited, regardless of what the Notice of Stock Option Grant indicates. Of the options that become exercisable in any calendar year, only options covering the first $100,000 of stock are eligible for ISO treatment. The excess over $100,000 automatically receives NSO treatment. For this purpose, stock is valued at the time of grant. This means that the value is generally equal to the exercise price.

For example, assume that you hold an option to buy 50,000 shares for $4 per share. Assume further that the entire option is exercisable immediately after the date of grant. (It is irrelevant when the underlying stock vests.) Only the first 25,000 shares qualify for ISO treatment. (25,000 times $4 equals $100,000.) The remaining 25,000 shares will be treated as if they had been acquired by exercising an NSO. This is true regardless of when the option is *actually* exercised; what matters is when it first *could* have been exercised.

EXERCISE OF ISO AND ISO HOLDING PERIODS

If you are exercising an ISO, you will not be taxed under the *regular* tax rules until you dispose of the Purchased Shares.[5] (The alternative minimum tax rules are described below.) The tax

---

[5] Generally, a "disposition" of shares purchased under an ISO encompasses any transfer of legal title, such as a transfer by sale, exchange or gift. It generally does not include a transfer to your spouse, a transfer into joint ownership with right of survivorship (if you remain one of the joint owners), a pledge, a transfer by bequest or inheritance, or certain tax-free exchanges permitted under the Internal Revenue Code. A transfer to a trust is a "disposition" unless the trust is an eligible revocable trust, as described in the attached explanation.

treatment at the time of disposition depends on how long you hold the shares. You will satisfy the ISO holding periods if you hold the Purchased Shares until the *later* of the following dates:

- More than two years after the ISO was granted, and
- More than one year after the ISO is exercised.

DISPOSITION OF ISO SHARES

If you dispose of the Purchased Shares after satisfying *both* of the ISO holding periods, then you will recognize only a long-term capital gain at the time of disposition. The amount of the capital gain is equal to the excess of (a) the sale proceeds over (b) the exercise price. In general, the maximum marginal federal income tax rate on long-term capital gains is 20% under current law, but lower long-term capital gain rates may apply to certain taxpayers.

Effective January 1, 2013, as a result of the Health Care and Education Reconciliation Act of 2010, an additional Medicare contribution tax is imposed at a rate of 3.8% on the "net investment income" of individuals with adjusted gross incomes in excess of $200,000 ($250,000 in the case of a joint return, and $125,000 in the case of a married taxpayer filing separately). "Net investment income" includes income from interest, dividends, and capital gains, reduced by the deductions properly allocated to such income.

If you dispose of the Purchased Shares before either or both of the ISO holding periods are met, then you will recognize ordinary income at the time of disposition. The calculation of the ordinary income amount depends on whether the shares are vested at the time of exercise.

- **Shares Vested**. If the shares are vested at the time of exercise, the amount of ordinary income will be equal to the excess of (a) the fair market value of the Purchased Shares on the date of exercise over (b) the exercise price. But if the disposition is an arm's length sale to an unrelated party, the amount of ordinary income will not exceed the total gain from the sale. Under current IRS rules, the ordinary income amount will not be subject to withholding for income or payroll taxes. Your tax basis in the Purchased Shares will be equal to the sum of the exercise price you paid for the Purchased Shares plus any additional amount you recognized as ordinary income. Any gain in excess of your basis will be taxed as a capital gain—either long-term or short-term, depending on how long you held the Purchased Shares after the date of exercise.
- **Shares Not Vested**. If the Purchased Shares are not vested at the time of exercise, then the amount of ordinary income will be equal to the excess of (a) the fair market value of the Purchased Shares on the date of *vesting* over (b) the exercise price. But if the disposition is an arm's length sale to an unrelated party, the amount of ordinary income will not exceed the total gain from the sale. Under current IRS rules, the ordinary income amount will not be subject to withholding for income or payroll taxes. Your tax basis in the Purchased Shares will be equal to the sum of the exercise price you paid for the Purchased Shares plus any additional amount you recognized as ordinary income. Any gain in excess of your basis will be taxed as

a capital gain—either long-term or short-term, depending on how long you held the Purchased Shares after the date of vesting. Please note that it makes no difference under the *regular* tax rules whether or not you filed a section 83(b) election at the time you exercised your ISO. In either case, your regular taxable income is measured as of the time of vesting rather than the time of exercise.

SUMMARY OF ALTERNATIVE MINIMUM TAX

The alternative minimum tax (AMT) must be paid to the extent that it exceeds your regular federal income tax for the year. For 2018, the first $191,500 ($95,750 for a married taxpayer filing a separate return) of your alternative minimum taxable income for the year over the allowable exemption amount (see below) is subject to alternative minimum taxation at the rate of 26%. The balance of your alternative minimum taxable income is subject to alternative minimum taxation at the rate of 28%. The dollar thresholds dividing the 26% and 28% rates are indexed for inflation in future years. Your alternative minimum tax base is equal to your alternative minimum taxable income (AMTI) minus your exemption amount.

- **Alternative Minimum Taxable Income**. Your AMTI is equal to your regular taxable income, subject to certain adjustments and increased by items of tax preference. Among the many adjustments made in computing AMTI are the following:
  - State and local income and property taxes are not allowed as a deduction.
  - Certain interest and other deductions are not allowed.
  - When an ISO is exercised, the spread is added to income for AMT purposes. (See discussion below.)
- **Exemption Amount**. Before AMT is calculated, AMTI is reduced by the exemption amount. Under current law, the exemption amount is as follows:

Year:	Joint Returns:	Single Returns:	Separate Returns:
2018[6]	$109,400	$70,300	$54,700

The allowable exemption amount is reduced by $0.25 for each $1.00 by which alternative minimum taxable income for the year exceeds the following amounts:

Year:	Joint Returns:	Single Returns:	Separate Returns:
2018[7]	$1,000,000	$500,000	$500,000

6 Amounts are indexed for inflation in future years.
7 Amounts are indexed for inflation in future years.

This means, for example, in 2018, the $109,400 exemption amount is phased out completely for married individuals filing joint returns when their alternative minimum taxable income reaches $1,437,600 [($109,400 ÷ $0.25) + $1,000,000].

APPLICATION OF AMT WHEN ISO IS EXERCISED

As noted above, when an ISO is exercised, the spread is included in AMTI at the time of exercise, unless the Purchased Shares are not yet vested at the time of exercise. If the Purchased Shares are not yet vested, the value of the shares minus the exercise price is included in AMTI when the shares vest. However, if you make an election under section 83(b) within 30 days after exercise, then the spread is included in AMTI at the time of exercise. **YOU MUST FILE AN 83(b) ELECTION WITH THE INTERNAL REVENUE SERVICE WITHIN 30 DAYS AFTER THE NOTICE OF STOCK OPTION EXERCISE IS SIGNED**. The 30-day filing period cannot be extended.

A special rule applies if you dispose of the Purchased Shares in the same year in which you exercised the ISO. If the amount you realize on the sale is less than the value of the stock at the time of exercise, then the amount includible in AMTI on account of the ISO exercise is limited to the gain realized on the sale.[8]

To the extent that your AMT is attributable to the spread on exercising an ISO (and certain other items), you may be able to apply the AMT that you paid as a credit against your income tax liability in future years. But the rules on calculating the available tax credits were amended frequently in recent years and have become extraordinarily complex. On this issue in particular, you must consult your own tax adviser.

When Purchased Shares are sold, your basis for purposes of computing the capital gain or loss under the AMT system is increased by the option spread that exists at the time of exercise. Again, an ISO is treated under the AMT system much like an NSO is treated under the regular tax system. But your basis in the ISO shares for purposes of computing gain or loss under the regular tax system does *not* reflect any AMT that you pay on the spread at exercise. Therefore, if you pay AMT in the year of the ISO exercise and regular income tax in the year of selling the Purchased Shares, you could pay tax twice on the same gain (except to the extent that you can use the AMT credit described above).

SECTION 409A OF THE INTERNAL REVENUE CODE

The preceding summary assumes that section 409A of the Internal Revenue Code does not apply to your option. In general, your option is exempt from section 409A if the exercise price per share is at least equal to the fair market value per share of the Company's Class A Common Stock at the time the option was granted by the Board of Directors. Since shares of Class A Common Stock are not traded on an established securities market, the determination of their fair market value generally is made by the Board of Directors or by an independent appraisal firm retained by the

[8] This is similar to the rule that applies under the regular tax system in the event of a disqualifying disposition of ISO stock. The amount of ordinary income that must be recognized in that case generally does not exceed the amount of the gain realized in the disposition.

Company. In either case, there is no guarantee that the Internal Revenue Service will agree with the valuation.

If your option were found to be subject to section 409A, then you would be required to recognize ordinary income as early as the year in which the option (or portion thereof) vests. This amount would also be subject to a 20% federal tax *in addition to* the federal income tax at your usual marginal rate for ordinary income. Additional state income taxes may apply in some states.

DISCLAIMER UNDER IRS CIRCULAR 230

To ensure compliance with requirements imposed by U.S. tax authorities, we inform you that any U.S. tax advice contained in the foregoing summary is not intended or written to be used, and cannot be used, for the purpose of (i) avoiding United States federal, state or local tax penalties, or (ii) promoting, marketing or recommending to another party any matters addressed herein (including any attachments).

SECTION 83(b) ELECTION

The undersigned taxpayer hereby elects, pursuant to Sections 55 and 83(b) of the Internal Revenue Code of 1986, as amended, and pursuant to Treasury Regulations Section 1.83-2, to include in gross income as compensation for services the excess (if any) of the fair market value of the shares described below over an amount paid for those shares.

A. The taxpayer who performed the services is:

Name: _____

Address: _____

_____

Social Security No.: _____

B. The property with respect to which the election is made is _____ shares of the Class A Common Stock of Pipeline Therapeutics, Inc.

C. The property was transferred to the taxpayer on _____ ___, _____.

D. The taxable year for which the election is made is the calendar year _____.

E. The property is subject to a repurchase right pursuant to which the issuer has the right to acquire the property if for any reason taxpayer's service with the issuer terminates. The issuer's repurchase right lapses in a series of installments over a _____-year period ending on _____ ___, _____.

F. The fair market value of such property at the time of transfer (determined without regard to any restriction other than a restriction that by its terms will never lapse) is $_____ per share x _____ shares = $_____.

G. For the property transferred, the taxpayer paid $_____ per share × _____ shares = $_____.

H. The amount to include in gross income is $_____. ***[The amount in Item F less the amount in Item G]***

I. This statement is executed on _____ ___, _____.

_____ _____

Signature of Spouse (if any) Signature of Taxpayer

Within 30 days after the date of transfer of the property, this election must be filed with the Internal Revenue Service office where the taxpayer files his or her annual federal income tax return. The filing should be made by registered or certified mail, return receipt requested. The taxpayer must deliver a copy of the completed form to the Company.

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "**Lease**") is made this 3rd day of January, 2018, between **ARE-SD REGION NO. 44, LLC**, a Delaware limited liability company ("**Landlord**"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**").

Building:	10578 Science Center Drive, San Diego, California
Premises:	That portion of the Building commonly known as Suite 200A containing approximately 9,143 rentable square feet, as determined by Landlord, as shown on **Exhibit A**.
Project:	The real property on which the Building in which the Premises are located, together with all improvements thereon and appurtenances thereto as described on **Exhibit B**.
Base Rent:	$4.10 per rentable square foot of the Premises per month, subject to adjustment pursuant to Section 4 hereof.

Rentable Area of Premises: 9,143 sq. ft.

Rentable Area of Building: 143,631 sq. ft.

Rentable Area of Project: 294,994 sq. ft.

Tenant's Share of Operating Expenses of Building: 6.36%

Building's Share of Project: 48.69%

Security Deposit: $37,486.30

Target Commencement Date: June 1, 2018

Rent Adjustment Percentage: 3%

Base Term:	Beginning on the Commencement Date and ending 60 months from the first day of the first full month after the Commencement Date. For clarity, if the Commencement Date occurs on the first day of a month, the Base Term shall be measured from that date. If the Commencement Date occurs on a day other than the first day of a month, the Base Term shall be measured from the first day of the following month.
Permitted Use:	Research and development laboratory, related office and other related uses consistent with the character of the Project and otherwise in compliance with the provisions of Section 7 hereof.

Address for Rent Payment:
Alexandria Real Estate Equities, Inc.
Dept. LA 23447
Pasadena, CA 91185-3447

Landlord's Notice Address:
385 E. Colorado Boulevard, Suite 299
Pasadena, CA 91101
Attention: Corporate Secretary

Tenant's Notice Address after the Commencement Date:
10578 Science Center Drive, Suite 200A
San Diego, California 92121

Tenant's Notice Address prior to the Commencement Date:
10210 Campus Point Drive, Suite 150
San Diego, CA 92121

Attention: Lease Administrator Attention: Lease Administrator

The following Exhibits and Addenda are attached hereto and incorporated herein by this reference:

[X] **EXHIBIT A** - PREMISES DESCRIPTION
[X] **EXHIBIT B** - DESCRIPTION OF PROJECT
[X] **EXHIBIT C** - WORK LETTER
[X] **EXHIBIT D** - COMMENCEMENT DATE
[X] **EXHIBIT E** - RULES AND REGULATIONS
[X] **EXHIBIT F** - TENANT'S PERSONAL PROPERTY
[X] **EXHIBIT G** - MAINTENANCE OBLIGATIONS

1. **Lease of Premises**. Upon and subject to all of the terms and conditions hereof, Landlord hereby leases the Premises to Tenant and Tenant hereby leases the Premises from Landlord. The portions of the Project which are for the non-exclusive use of tenants of the Project are collectively referred to herein as the "**Common Areas**." Landlord reserves the right to modify Common Areas, provided that such modifications do not materially adversely affect Tenant's use of the Premises for the Permitted Use. From and after the Commencement Date through the expiration of the Term, Tenant shall have access to the Building and the Premises 24 hours a day, 7 days a week, except in the case of emergencies, as the result of Legal Requirements, the performance by Landlord of any installation, maintenance or repairs, or any other temporary interruptions, and otherwise subject to the terms of this Lease.

2. **Delivery; Acceptance of Premises; Commencement Date**. Landlord shall use reasonable efforts to deliver the Premises to Tenant on or before the Target Commencement Date, with Landlord's Work Substantially Completed ("**Delivery**" or "**Deliver**"). Landlord shall Deliver the Premises to Tenant upon Substantial Completion of the Tenant Improvements. If Landlord fails to timely Deliver the Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable except as provided herein. If Landlord does not Deliver the Premises within 90 days of the Target Commencement Date for any reason other than Force Majeure delays and Tenant Delays, this Lease may be terminated by Tenant by written notice to Landlord, and if so terminated by Tenant: (a) the Security Deposit, or any balance thereof (i.e., after deducting therefrom all amounts to which Landlord is entitled under the provisions of this Lease), shall be returned to Tenant, and (b) neither Landlord nor Tenant shall have any further rights, duties or obligations under this Lease, except with respect to provisions which expressly survive termination of this Lease. As used herein, the terms "**Landlord's Work**," "**Tenant Delays**" and "**Substantially Completed**" shall have the meanings set forth for such terms in the Work Letter. If Tenant does not elect to void this Lease within 5 business days of the lapse of such 90 day period, such right to void this Lease shall be waived and this Lease shall remain in full force and effect.

The "**Commencement Date**" shall be the earlier of: (i) the date that is 3 months after the Substantial Completion of the Tenant Improvements; and (ii) the date that is 3 months after the date Landlord could have Substantially Completed the Tenant Improvements but for Tenant Delays. The "**Rent Commencement Date**" shall be the date that is 5 months after the Commencement Date. The period commencing on the Commencement Date and ending on the day immediately preceding the Rent Commencement Date may be referred to herein as the "**Abatement Period**." Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Commencement Date, the Rent Commencement Date, and the expiration date of the Term when such are established in the form of the "Acknowledgement of Commencement Date" attached to this Lease as **Exhibit D**; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder. The "**Term**" of this Lease shall be the Base Term, as defined above on the first page of this Lease and the Extension Term which Tenant may elect pursuant to Section 40.

Landlord shall permit Tenant access to the Premises at least 14 days prior to Landlord's Substantial Completion of the Tenant Improvements for Tenant's installation and setup of furniture, fixtures and equipment ("**FF&E Installation**"), provided that such FF&E Installation is coordinated with Landlord, and Tenant complies with the Lease and all other reasonable restrictions and conditions Landlord may impose. Tenant shall not conduct any business in the Premises during such period. All such access shall be during normal business hours. Any access to the Premises by Tenant before the Commencement Date shall be

subject to all of the terms and conditions of this Lease, excluding the obligation to pay Base Rent or Operating Expenses.

Except as set forth in the Work Letter: (i) Tenant shall accept the Premises in their condition as of the Commencement Date; (ii) Landlord shall have no obligation for any defects in the Premises; and (iii) Tenant's taking possession of the Premises shall be conclusive evidence that Tenant accepts the Premises and that the Premises were in good condition at the time possession was taken.

Tenant agrees and acknowledges that, except as otherwise expressly set forth in this Lease, neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Premises or the Project, and/or the suitability of the Premises or the Project for the conduct of Tenant's business, and Tenant waives any implied warranty that the Premises or the Project are suitable for the Permitted Use. This Lease constitutes the complete agreement of Landlord and Tenant with respect to the subject matter hereof and supersedes any and all prior representations, inducements, promises, agreements, understandings and negotiations which are not contained herein. Landlord in executing this Lease does so in reliance upon Tenant's representations, warranties, acknowledgments and agreements contained herein.

3. **Rent**.

(a) **Base Rent**. Base Rent for the month in which the Rent Commencement Date occurs and the Security Deposit shall be due and payable on the date that is 5 days after the mutual execution and delivery of this Lease by the parties. Tenant shall pay to Landlord in advance, without demand, abatement, deduction or set-off, monthly installments of Base Rent on or before the first day of each calendar month during the Term hereof after the Rent Commencement Date, in lawful money of the United States of America, at the office of Landlord for payment of Rent set forth above, or to such other person or at such other place as Landlord may from time to time designate in writing. Payments of Base Rent for any fractional calendar month shall be prorated. The obligation of Tenant to pay Base Rent and other sums to Landlord and the obligations of Landlord under this Lease are independent obligations. Tenant shall have no right at any time to abate, reduce, or set-off any Rent (as defined in Section 5) due hereunder except for any abatement as may be expressly provided in this Lease.

(b) **Additional Rent**. In addition to Base Rent, Tenant agrees to pay to Landlord as additional rent ("**Additional Rent**"): (i) commencing on the Commencement Date, Tenant's Share of "Operating Expenses" (as defined in Section 5), and (ii) any and all other amounts Tenant assumes or agrees to pay under the provisions of this Lease, including, without limitation, any and all other sums that may become due by reason of any default of Tenant or failure to comply with the agreements, terms, covenants and conditions of this Lease to be performed by Tenant, after any applicable notice and cure period.

4. **Base Rent Adjustments**.

(a) **Annual Adjustments**. Base Rent shall be increased on each annual anniversary of the Commencement Date (each an "**Adjustment Date**") by multiplying the Base Rent payable immediately before such Adjustment Date by the Rent Adjustment Percentage and adding the resulting amount to the Base Rent payable immediately before such Adjustment Date. Base Rent, as so adjusted, shall thereafter be due as provided herein. Base Rent adjustments for any fractional calendar month shall be prorated.

(b) **Allowance**. Landlord shall, subject to the terms of the Work Letter, make available to Tenant the Allowance (as defined in the Work Letter). Commencing on the Rent Commencement Date and continuing thereafter on the first day of each month during the Base Term, Tenant shall pay the amount necessary to fully amortize the portion of the Allowance actually funded by Landlord, if any, in equal monthly payments with interest at a rate of 8% per annum over the remainder of the Base Term, which interest shall begin to accrue on the date that Landlord first disburses such Allowance or any portion(s) thereof. Any of the Allowance and applicable interest remaining unpaid as of the expiration or earlier termination of this Lease shall be paid to Landlord, except as otherwise provided in Section 42, in a lump sum at the expiration or earlier termination of this Lease.

5. **Operating Expense Payments**. Landlord shall deliver to Tenant a written estimate of Operating Expenses for each calendar year during the Term (the "**Annual Estimate**"), which may be revised by Landlord from time to time during such calendar year. Commencing on the Commencement Date and continuing thereafter on the first day of each month during the Term, Tenant shall pay Landlord an amount equal to 1/12th of Tenant's Share of the Annual Estimate. Payments for any fractional calendar month shall be prorated.

The term "**Operating Expenses**" means all costs and expenses of any kind or description whatsoever incurred or accrued each calendar year by Landlord with respect to the Building (including the Building's Share of all costs and expenses of any kind or description incurred or accrued by Landlord with respect to the Project which are not specific to the Building or any other building located in the Project*)* (including, without duplication, Taxes (as defined in Section 9), and capital repairs and improvements amortized over the lesser of 10 years and the useful life of such capital items), excluding only:

(a) the original construction costs of the Project and renovation prior to the date of the Lease and costs of correcting defects in such original construction or renovation;

(b) capital expenditures for expansion of the Project;

(c) interest, principal payments of Mortgage (as defined in Section 27) debts of Landlord, financing costs and amortization of funds borrowed by Landlord, whether secured or unsecured;

(d) depreciation of the Project (except for capital improvements, the cost of which are includable in Operating Expenses);

(e) advertising, legal and space planning expenses and leasing commissions and other costs and expenses incurred in procuring and leasing space to tenants for the Project, including any leasing office maintained in the Project, free rent and construction allowances for tenants;

(f) legal and other expenses incurred in the negotiation or enforcement of leases;

(g) completing, fixturing, improving, renovating, painting, redecorating or other work, which Landlord pays for or performs for other tenants within their premises, and costs of correcting defects in such work;

(h) costs to be reimbursed by other tenants of the Project or Taxes to be paid directly by Tenant or other tenants of the Project, whether or not actually paid;

(i) salaries, wages, benefits and other compensation paid to officers and employees of Landlord who are not assigned in whole or in part to the operation, management, maintenance or repair of the Project;

(j) general organizational, administrative and overhead costs relating to maintaining Landlord's existence, either as a corporation, partnership, or other entity, including general corporate, legal and accounting expenses;

(k) costs (including attorneys' fees and costs of settlement, judgments and payments in lieu thereof) incurred in connection with disputes with tenants, other occupants, or prospective tenants, and costs and expenses, including legal fees, incurred in connection with negotiations or disputes with employees, consultants, management agents, leasing agents, purchasers or mortgagees of the Building;

(l) costs incurred by Landlord due to the violation by Landlord, its employees, agents or contractors or any tenant of the terms and conditions of any lease of space in the Project or any Legal Requirement (as defined in Section 7);

(m) penalties, fines or interest incurred as a result of Landlord's inability or failure to make payment of Taxes and/or to file any tax or informational returns when due, or from Landlord's failure to make any payment of Taxes required to be made by Landlord hereunder before delinquency;

(n) overhead and profit increment paid to Landlord or to subsidiaries or affiliates of Landlord for goods and/or services in or to the Project to the extent the same exceeds the costs of such goods and/or services rendered by unaffiliated third parties on a competitive basis;

(o) costs of Landlord's charitable or political contributions, or of fine art maintained at the Project;

(p) costs in connection with services (including electricity), items or other benefits of a type which are not standard for the Project and which are not available to Tenant without specific charges therefor, but which are provided to another tenant or occupant of the Project, whether or not such other tenant or occupant is specifically charged therefor by Landlord;

(q) costs incurred in the sale or refinancing of the Project;

(r) net income taxes of Landlord or the owner of any interest in the Project, franchise, capital stock, gift, estate or inheritance taxes, transfer taxes, or any federal, state or local documentary taxes imposed against the Project or any portion thereof or interest therein;

(s) during the Base Term and the immediately following Extension Term, Landlord's customary administrative rent charged for property management (i.e. 3% of Base Rent); and

(t) any expenses otherwise includable within Operating Expenses to the extent actually reimbursed by persons other than tenants of the Project under leases for space in the Project.

In addition, notwithstanding anything to the contrary contained in this Lease, Operating Expenses incurred or accrued by Landlord with respect to any capital improvements which are reasonably expected by Landlord to reduce overall Operating Expenses (for example, without limitation, by reducing energy usage at the Project) (the "**Energy Savings Costs**") shall be amortized over a period of years equal to the least of (A) 10 years, (B) the useful life of such capital items, or (C) the quotient of (i) the Energy Savings Costs, divided by (ii) the annual amount of Operating Expenses reasonably expected by Landlord to be saved as a result of such capital improvements.

Within 90 days after the end of each calendar year (or such longer period as may be reasonably required), Landlord shall furnish to Tenant a statement (an "**Annual Statement**") showing in reasonable detail: (a) the total and Tenant's Share of actual Operating Expenses for the previous calendar year, and (b) the total of Tenant's payments in respect of Operating Expenses for such year. If Tenant's Share of actual Operating Expenses for such year exceeds Tenant's payments of Operating Expenses for such year, the excess shall be due and payable by Tenant as Rent within 30 days after delivery of such Annual Statement to Tenant. If Tenant's payments of Operating Expenses for such year exceed Tenant's Share of actual Operating Expenses for such year Landlord shall pay the excess to Tenant within 30 days after delivery of such Annual Statement, except that after the expiration, or earlier termination of the Term or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. Landlord's and Tenant's obligations to pay any overpayments or deficiencies due pursuant to this paragraph shall survive the expiration or earlier termination of this Lease.

The Annual Statement shall be final and binding upon Tenant unless Tenant, within 60 days after Tenant's receipt thereof, shall contest any item therein by giving written notice to Landlord, specifying each item contested and the reason therefor. If, during such 60 day period, Tenant reasonably and in good faith questions or contests the accuracy of Landlord's statement of Tenant's Share of Operating Expenses, Landlord will provide Tenant with access to Landlord's books and records relating to the operation of the Project and such information as Landlord reasonably determines to be responsive to Tenant's questions

(the "**Expense Information**"). If after Tenant's review of such Expense Information, Landlord and Tenant cannot agree upon the amount of Tenant's Share of Operating Expenses, then Tenant shall have the right to have an independent public accounting firm selected by Tenant from among the 4 largest in the United States, working pursuant to a fee arrangement other than a contingent fee (at Tenant's sole cost and expense) and approved by Landlord (which approval shall not be unreasonably withheld or delayed), audit and/or review the Expense Information for the year in question (the "**Independent Review**"). The results of any such Independent Review shall be binding on Landlord and Tenant. If the Independent Review shows that the payments actually made by Tenant with respect to Operating Expenses for the calendar year in question exceeded Tenant's Share of Operating Expenses for such calendar year, Landlord shall at Landlord's option either (i) credit the excess amount to the next succeeding installments of estimated Operating Expenses or (ii) pay the excess to Tenant within 30 days after delivery of such statement, except that after the expiration or earlier termination of this Lease or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. If the Independent Review shows that Tenant's payments with respect to Operating Expenses for such calendar year were less than Tenant's Share of Operating Expenses for the calendar year, Tenant shall pay the deficiency to Landlord within 30 days after delivery of such statement. If the Independent Review shows that Tenant has overpaid with respect to Operating Expenses by more than 5% then Landlord shall reimburse Tenant for all costs incurred by Tenant for the Independent Review. Operating Expenses for the calendar years in which Tenant's obligation to share therein begins and ends shall be prorated. Notwithstanding anything set forth herein to the contrary, if the Building is not at least 95% occupied on average during any year of the Term, Tenant's Share of Operating Expenses for such year shall be computed as though the Building had been 95% occupied on average during such year.

"**Tenant's Share**" shall be the percentage set forth on the first page of this Lease as Tenant's Share as reasonably adjusted by Landlord for changes in the physical size of the Premises or the Project occurring thereafter. Landlord may equitably increase Tenant's Share for any item of expense or cost reimbursable by Tenant that relates to a repair, replacement, or service that benefits only the Premises or only a portion of the Project that includes the Premises or that varies with occupancy or use. Base Rent, Tenant's Share of Operating Expenses and all other amounts payable by Tenant to Landlord hereunder are collectively referred to herein as "**Rent**."

6. **Security Deposit**. Tenant shall deposit with Landlord, on or before the date that is 5 days after the mutual execution and delivery of this Lease by the parties, a security deposit (the "**Security Deposit**") for the performance of all of Tenant's obligations hereunder in the amount set forth on page 1 of this Lease, which Security Deposit shall be in the form of an unconditional and irrevocable letter of credit (the "**Letter of Credit**"): (i) in form and substance reasonably satisfactory to Landlord, (ii) naming Landlord as beneficiary, (iii) expressly allowing Landlord to draw upon it at any time from time to time by delivering to the issuer notice that Landlord is entitled to draw thereunder, (iv) issued by an FDIC-insured financial institution satisfactory to Landlord, and (v) redeemable by presentation of a sight draft in the state of Landlord's choice. If Tenant does not provide Landlord with a substitute Letter of Credit complying with all of the requirements hereof at least 10 days before the stated expiration date of any then current Letter of Credit and the Letter of Credit does not include an "evergreen" provision by which it automatically renews, Landlord shall have the right to draw the full amount of the current Letter of Credit and hold the funds drawn in cash without obligation for interest thereon as the Security Deposit. The Security Deposit shall be held by Landlord as security for the performance of Tenant's obligations under this Lease. The Security Deposit is not an advance rental deposit or a measure of Landlord's damages in case of Tenant's default. Upon each occurrence of a Default (as defined in Section 20), Landlord may use all or any part of the Security Deposit to pay delinquent payments due under this Lease, future rent damages under California Civil Code Section 1951.2, and the cost of any damage, injury, expense or liability caused by such Default, without prejudice to any other remedy provided herein or provided by law. Landlord's right to use the Security Deposit under this Section 6 includes the right to use the Security Deposit to pay future rent damages following the termination of this Lease pursuant to Section 21(c) below. Upon any use of all or any portion of the Security Deposit, Tenant shall within 10 days after Landlord's demand restore the Security Deposit to the amount set forth on Page 1 of this Lease. Tenant hereby waives the provisions of any law, now or hereafter in force, including, without limitation, California Civil Code Section 1950.7, which provide that Landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in

the payment of Rent, to repair damage caused by Tenant or to clean the Premises, it being agreed that Landlord may, in addition, claim those sums reasonably necessary to compensate Landlord for any other loss or damage, foreseeable or unforeseeable, caused by the act or omission of Tenant or any officer, employee, agent or invitee of Tenant. Upon bankruptcy or other debtor-creditor proceedings against Tenant, the Security Deposit shall be deemed to be applied first to the payment of Rent and other charges due Landlord for periods prior to the filing of such proceedings. If Tenant shall fully perform every provision of this Lease to be performed by Tenant, the Security Deposit, or any balance thereof (i.e., after deducting therefrom all amounts to which Landlord is entitled under the provisions of this Lease), shall be returned to Tenant (or, at Landlord's option, to the last assignee of Tenant's interest hereunder) within 60 days after the expiration or earlier termination of this Lease.

If Landlord transfers its interest in the Project or this Lease, Landlord shall either (a) transfer any Security Deposit then held by Landlord to a person or entity assuming Landlord's obligations under this Section 6, or (b) return to Tenant any Security Deposit then held by Landlord and remaining after the deductions permitted herein. Upon such transfer to such transferee or the return of the Security Deposit to Tenant, Landlord shall have no further obligation with respect to the Security Deposit, and Tenant's right to the return of the Security Deposit shall apply solely against Landlord's transferee. The Security Deposit is not an advance rental deposit or a measure of Landlord's damages in case of Tenant's default. Landlord's obligation respecting the Security Deposit is that of a debtor, not a trustee, and no interest shall accrue thereon.

7. **Use**. The Premises shall be used solely for the Permitted Use set forth in the basic lease provisions on page 1 of this Lease, and in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Premises, and to the use and occupancy thereof, including, without limitation, the Americans With Disabilities Act, 42 U.S.C. § 12101, et seq. (together with the regulations promulgated pursuant thereto, "**ADA**") (collectively, "**Legal Requirements**" and each, a "**Legal Requirement**"). Tenant shall, upon 5 days' written notice from Landlord, discontinue any use of the Premises which is declared by any Governmental Authority (as defined in Section 9) having jurisdiction to be a violation of a Legal Requirement. Tenant will not use or permit the Premises to be used for any purpose or in any manner that would void Tenant's or Landlord's insurance, increase the insurance risk, or cause the disallowance of any sprinkler or other credits. Tenant shall not permit any part of the Premises to be used as a "place of public accommodation", as defined in the ADA or any similar legal requirement. Tenant shall reimburse Landlord promptly upon demand for any additional premium charged for any such insurance policy by reason of Tenant's failure to comply with the provisions of this Section or otherwise caused by Tenant's use and/or occupancy of the Premises. Tenant will use the Premises in a careful, safe and proper manner and will not commit or permit waste, overload the floor or structure of the Premises, subject the Premises to use that would damage the Premises or obstruct or interfere with the rights of Landlord or other tenants or occupants of the Project, including conducting or giving notice of any auction, liquidation, or going out of business sale on the Premises, or using or allowing the Premises to be used for any unlawful purpose. Tenant shall cause any equipment or machinery to be installed in the Premises so as to reasonably prevent sounds or vibrations from the Premises from extending into Common Areas, or other space in the Project. Tenant shall not place any machinery or equipment weighing 500 pounds or more in or upon the Premises or transport or move such items through the Common Areas of the Project or in the Project elevators without the prior written consent of Landlord, which consent shall not be unreasonably withheld. Except as may be provided under the Work Letter, Tenant shall not, without the prior written consent of Landlord, use the Premises in any manner which will require ventilation, air exchange, heating, gas, steam, electricity or water beyond the existing capacity of the Project as proportionately allocated to the Premises based upon Tenant's Share as usually furnished for the Permitted Use.

Tenant, at its sole expense, shall make any alterations or modifications to the interior or the exterior of the Premises or the Project that are required by Legal Requirements (including, without limitation, compliance of the Premises with the ADA) related to Tenant's specific use or occupancy of the Premises. Notwithstanding any other provision herein to the contrary, Tenant shall be responsible for any and all demands, claims, liabilities, losses, costs, expenses, actions, causes of action, damages or judgments, and all reasonable expenses incurred in investigating or resisting the same (including, without limitation,

reasonable attorneys' fees, charges and disbursements and costs of suit) (collectively, "**Claims**") arising out of or in connection with Legal Requirements related to Tenant's specific use or occupancy of the Premises or Tenant's Alterations, and Tenant shall indemnify, defend, hold and save Landlord harmless from and against any and all Claims arising out of or in connection with any failure of the Premises to comply with any Legal Requirement related to Tenant's specific use or occupancy of the Premises or Tenant's Alterations.

Tenant acknowledges that Landlord may, but shall not be obligated to, seek to obtain Leadership in Energy and Environmental Design (LEED), WELL Building Standard, or other similar "green" certification with respect to the Project and/or the Premises, and Tenant agrees to reasonably cooperate with Landlord, and to provide such information and/or documentation as Landlord may reasonably request, in connection therewith.

8. **Holding Over**. If, with Landlord's express written consent, Tenant retains possession of the Premises after the termination of the Term, (i) unless otherwise agreed in such written consent, such possession shall be subject to immediate termination by Landlord at any time, (ii) all of the other terms and provisions of this Lease (including, without limitation, the adjustment of Base Rent pursuant to Section 4 hereof) shall remain in full force and effect (excluding any expansion or renewal option or other similar right or option) during such holdover period, (iii) Tenant shall continue to pay Base Rent in the amount payable upon the date of the expiration or earlier termination of this Lease or such other amount as may be agreed upon by the parties, and (iv) all other payments shall continue under the terms of this Lease. If Tenant remains in possession of the Premises after the expiration or earlier termination of the Term without the express written consent of Landlord, (A) Tenant shall become a tenant at sufferance upon the terms of this Lease except that (x) for the first 60 days of such holdover, the monthly rental shall be equal to 125% of Rent in effect during the last 30 days of the Term, and (y) thereafter, the monthly rental shall be equal to 150% of Rent in effect during the last 30 days of the Term, and (B) Tenant shall be responsible for all damages suffered by Landlord resulting from or occasioned by Tenant's holding over, including consequential damages; provided, however, that if Tenant delivers a written inquiry to Landlord within 30 days prior to the expiration or earlier termination of the Term, Landlord will notify Tenant whether the potential exists for consequential damages. No holding over by Tenant, whether with or without consent of Landlord, shall operate to extend this Lease except as otherwise expressly provided, and this Section 8 shall not be construed as consent for Tenant to retain possession of the Premises. Acceptance by Landlord of Rent after the expiration of the Term or earlier termination of this Lease shall not result in a renewal or reinstatement of this Lease.

9. **Taxes**. Landlord shall pay, as part of Operating Expenses, all taxes, levies, fees, assessments and governmental charges of any kind, existing as of the Commencement Date or thereafter enacted (collectively referred to as "**Taxes**"), imposed by any federal, state, regional, municipal, local or other governmental authority or agency, including, without limitation, quasi-public agencies (collectively, "**Governmental Authority**") during the Term, including, without limitation, all Taxes: (i) imposed on or measured by or based, in whole or in part, on rent payable to (or gross receipts received by) Landlord under this Lease and/or from the rental by Landlord of the Project or any portion thereof, or (ii) based on the square footage, assessed value or other measure or evaluation of any kind of the Premises or the Project, or (iii) assessed or imposed by or on the operation or maintenance of any portion of the Premises or the Project, including parking, or (iv) assessed or imposed by, or at the direction of, or resulting from Legal Requirements, or interpretations thereof, promulgated by any Governmental Authority, or (v) imposed as a license or other fee, charge, tax, or assessment on Landlord's business or occupation of leasing space in the Project. Landlord may contest by appropriate legal proceedings the amount, validity, or application of any Taxes or liens securing Taxes. Taxes shall not include any net income taxes imposed on Landlord except to the extent such net income taxes are in substitution for any Taxes payable hereunder. If any such Tax is levied or assessed directly against Tenant, then Tenant shall be responsible for and shall pay the same at such times and in such manner as the taxing authority shall require. Tenant shall pay, prior to delinquency, any and all Taxes levied or assessed against any personal property or trade fixtures placed by Tenant in the Premises, whether levied or assessed against Landlord or Tenant. If any Taxes on Tenant's personal property or trade fixtures are levied against Landlord or Landlord's property, or if the assessed valuation of the Project is increased by a value attributable to improvements in or alterations to

the Premises, whether owned by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, higher than the base valuation on which Landlord from time-to-time allocates Taxes to all tenants in the Project, Landlord shall have the right, but not the obligation, to pay such Taxes. Landlord's determination of any excess assessed valuation shall be binding and conclusive, absent manifest error. The amount of any such payment by Landlord shall constitute Additional Rent due from Tenant to Landlord immediately upon demand.

10. **Parking**. Subject to all applicable Legal Requirements, Force Majeure, a Taking (as defined in Section 19 below) and the exercise by Landlord of its rights hereunder, Tenant shall have the right, at no additional cost to Tenant, in common with other tenants of the Project to use 2.5 parking spaces per 1,000 rentable square feet of the Premises, in those areas of the underground parking area designated for non-reserved parking, subject in each case to Landlord's rules and regulations. Landlord may allocate parking spaces among Tenant and other tenants in the Project pro rata as described above if Landlord determines that such parking facilities are becoming crowded. Landlord shall not be responsible for enforcing Tenant's parking rights against any third parties, including other tenants of the Project.

11. **Utilities, Services**. Landlord shall provide, subject to the terms of this Section 11, water, electricity, heat, light, power, sewer, and other utilities (including gas and fire sprinklers to the extent the Project is plumbed for such services), refuse and trash collection and janitorial services (collectively, "**Utilities**"). Landlord shall pay, as Operating Expenses or subject to Tenant's reimbursement obligation, for all Utilities used on the Premises, all maintenance charges for Utilities, and any storm sewer charges or other similar charges for Utilities imposed by any Governmental Authority or Utility provider, and any taxes, penalties, surcharges or similar charges thereon. Landlord may cause, at Landlord's expense, any Utilities to be separately metered or charged directly to Tenant by the provider. Tenant shall pay directly to the Utility provider, prior to delinquency, any separately metered Utilities and services which may be furnished to Tenant or the Premises during the Term. Tenant shall pay, as part of Operating Expenses, its share of all charges for jointly metered Utilities based upon consumption, as reasonably determined by Landlord. No interruption or failure of Utilities, from any cause whatsoever other than Landlord's willful misconduct, shall result in eviction or constructive eviction of Tenant, termination of this Lease or the abatement of Rent. Tenant agrees to limit use of water and sewer with respect to Common Areas to normal restroom use.

Notwithstanding anything to the contrary set forth herein, if (i) a stoppage of an Essential Service (as defined below) to the Premises shall occur and such stoppage is due solely to the gross negligence or willful misconduct of Landlord and not due in any part to any act or omission on the part of Tenant or any Tenant Party or any matter beyond Landlord's reasonable control (any such stoppage of an Essential Service being hereinafter referred to as a "**Service Interruption**"), and (ii) such Service Interruption continues for more than 5 consecutive business days after Landlord shall have received written notice thereof from Tenant, and (iii) as a result of such Service Interruption, the conduct of Tenant's normal operations in the Premises are materially and adversely affected, then, to the extent that such Service Interruption is covered by rental interruption insurance carried by Landlord pursuant to this Lease, there shall be an abatement of one day's Base Rent for each day during which such Service Interruption continues after such 5 business day period; provided, however, that if any part of the Premises is reasonably useable for Tenant's normal business operations or if Tenant conducts all or any part of its operations in any portion of the Premises notwithstanding such Service Interruption, then the amount of each daily abatement of Base Rent shall only be proportionate to the nature and extent of the interruption of Tenant's normal operations or ability to use the Premises. The rights granted to Tenant under this paragraph shall be Tenant's sole and exclusive remedy resulting from a failure of Landlord to provide services, and Landlord shall not otherwise be liable for any loss or damage suffered or sustained by Tenant resulting from any failure or cessation of services. For purposes hereof, the term "**Essential Services**" shall mean the following services: HVAC service, water, sewer and electricity, but in each case only to the extent that Landlord has an obligation to provide same to Tenant under this Lease.

Landlord's sole obligation for either providing emergency generators or providing emergency back-up power to Tenant shall be: (i) to provide emergency generators with not less than the capacity of the emergency generators located in the Building as of the Commencement Date, and (ii) to contract with a third party to maintain the emergency generators as per the manufacturer's standard maintenance

guidelines. Except as otherwise provided in the immediately preceding sentence, Landlord shall have no obligation to provide Tenant with operational emergency generators or back-up power or to supervise, oversee or confirm that the third party maintaining the emergency generators is maintaining the generators as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the emergency generators when the emergency generators are not operational, including any delays thereto due to the inability to obtain parts or replacement equipment, Landlord shall have no obligation to provide Tenant with an alternative back-up generator or generators or alternative sources of back-up power. Tenant expressly acknowledges and agrees that Landlord does not guaranty that such emergency generators will be operational at all times or that emergency power will be available to the Premises when needed.

Tenant agrees to provide Landlord with access to Tenant's water and/or energy usage data on a monthly basis, either by providing Tenant's applicable utility login credentials to Landlord's Measurabl online portal, or by another delivery method reasonably agreed to by Landlord and Tenant. The costs and expenses incurred by Landlord in connection with receiving and analyzing such water and/or energy usage data (including, without limitation, as may be required pursuant to applicable Legal Requirements) shall be included as part of Operating Expenses.

12. **Alterations and Tenant's Property**. Any alterations, additions, or improvements made to the Premises by or on behalf of Tenant, including additional locks or bolts of any kind or nature upon any doors or windows in the Premises, but excluding installation, removal or realignment of furniture systems (other than removal of furniture systems owned or paid for by Landlord) not involving any modifications to the structure or connections (other than by ordinary plugs or jacks) to Building Systems (as defined in Section 13) ("**Alterations**") shall be subject to Landlord's prior written consent, which may be given or withheld in Landlord's sole discretion if any such Alteration affects the structure or Building Systems and shall not be otherwise unreasonably withheld. If Landlord approves any Alterations, Landlord may impose such conditions on Tenant in connection with the commencement, performance and completion of such Alterations as Landlord may deem appropriate in Landlord's reasonable discretion. Any request for approval shall be in writing, delivered not less than 15 business days in advance of any proposed construction, and accompanied by plans, specifications, bid proposals, work contracts and such other information concerning the nature and cost of the alterations as may be reasonably requested by Landlord, including the identities and mailing addresses of all persons performing work or supplying materials. Landlord's right to review plans and specifications and to monitor construction shall be solely for its own benefit, and Landlord shall have no duty to ensure that such plans and specifications or construction comply with applicable Legal Requirements. Tenant shall cause, at its sole cost and expense, all Alterations to comply with insurance requirements and with Legal Requirements and shall implement at its sole cost and expense any alteration or modification required by Legal Requirements as a result of any Alterations. Tenant shall pay to Landlord, as Additional Rent, on demand an amount equal to 3% of all charges incurred by Tenant or its contractors or agents in connection with any Alteration to cover Landlord's overhead and expenses for plan review, coordination, scheduling and supervision. Before Tenant begins any Alteration, Landlord may post on and about the Premises notices of non-responsibility pursuant to applicable law. Tenant shall reimburse Landlord for, and indemnify and hold Landlord harmless from, any expense incurred by Landlord by reason of faulty work done by Tenant or its contractors, delays caused by such work, or inadequate cleanup.

Tenant shall furnish reasonable security or make other arrangements reasonably satisfactory to Landlord to assure payment for the completion of all Alterations work free and clear of liens, and shall provide (and cause each contractor or subcontractor to provide) certificates of insurance for workers' compensation and other coverage in amounts and from an insurance company satisfactory to Landlord protecting Landlord against liability for personal injury or property damage during construction. Upon completion of any Alterations, Tenant shall deliver to Landlord: (i) sworn statements setting forth the names of all contractors and subcontractors who did the work and final lien waivers from all such contractors and subcontractors; and (ii) "as built" plans for any such Alteration.

Except for Removable Installations (as hereinafter defined), all Installations (as hereinafter defined) shall be and shall remain the property of Landlord during the Term and following the expiration or earlier

termination of the Term, shall not be removed by Tenant at any time during the Term, and shall remain upon and be surrendered with the Premises as a part thereof. Notwithstanding the foregoing, Landlord may, at the time its approval of any such Installation is requested, notify Tenant that Landlord requires that Tenant remove such Installation upon the expiration or earlier termination of the Term, in which event Tenant shall remove such Installation in accordance with the immediately succeeding sentence. Upon the expiration or earlier termination of the Term, Tenant shall remove (i) all wires, cables or similar equipment which Tenant has installed in the Premises or in the risers or plenums of the Building, (ii) any Installations for which Landlord has given Tenant notice of removal in accordance with the immediately preceding sentence, and (iii) all of Tenant's Property (as hereinafter defined), and Tenant shall restore and repair any damage caused by or occasioned as a result of such removal, including, without limitation, capping off all such connections behind the walls of the Premises and repairing any holes. During any restoration period beyond the expiration or earlier termination of the Term, Tenant shall pay Rent to Landlord as provided herein as if said space were otherwise occupied by Tenant. If Landlord is requested by Tenant or any lender, lessor or other person or entity claiming an interest in any of Tenant's Property to waive any lien Landlord may have against any of Tenant's Property, and Landlord consents to such waiver, then Landlord shall be entitled to be paid as administrative rent a fee of $1,000 per occurrence for its time and effort in preparing and negotiating such a waiver of lien.

For purposes of this Lease, (x) "**Removable Installations**" means any items listed on **Exhibit F** attached hereto and any items agreed by Landlord in writing to be included on **Exhibit F** in the future, (y) "**Tenant's Property**" means Removable Installations and, other than Installations, any personal property or equipment of Tenant that may be removed without material damage to the Premises, and (z) "**Installations**" means all property of any kind paid for by Landlord, all Alterations, all fixtures, and all partitions, hardware, built-in machinery, built-in casework and cabinets and other similar additions, equipment, property and improvements built into the Premises so as to become an integral part of the Premises, including, without limitation, fume hoods which penetrate the roof or plenum area, built-in cold rooms, built-in warm rooms, walk-in cold rooms, walk-in warm rooms, deionized water systems, glass washing equipment, autoclaves, chillers, built-in plumbing, electrical and mechanical equipment and systems, and any power generator and transfer switch. Notwithstanding anything to the contrary contained in this Lease, Tenant shall not be required to remove Landlord's Work at the expiration or earlier termination of the Term nor shall Tenant have any right to remove any of Landlord's Work at any time.

13. **Landlord's Repairs**. Landlord, as an Operating Expense, shall maintain all of the structural (including the roof and roof membrane), exterior, parking and other Common Areas of the Project, including HVAC, plumbing, fire sprinklers, elevators and all other building systems serving the Premises and other portions of the Project ("**Building Systems**"), in good repair, reasonable wear and tear and uninsured losses and damages caused by Tenant, or by any of Tenant, or by any of Tenant's assignees, sublessees, licensees, agents, servants, employees, invitees and contractors (or any of Tenant's assignees, sublessees and/or licensees respective agents, servants, employees, invitees and contractors) (collectively, "**Tenant Parties**") excluded. Losses and damages caused by Tenant or any Tenant Party shall be repaired by Landlord, to the extent not covered by insurance, at Tenant's sole cost and expense. Landlord reserves the right to stop Building Systems services when necessary (i) by reason of accident or emergency, or (ii) for planned repairs, alterations or improvements, which are, in the judgment of Landlord, desirable or necessary to be made, until said repairs, alterations or improvements shall have been completed. Landlord shall have no responsibility or liability for failure to supply Building Systems services during any such period of interruption; provided, however, that Landlord shall, except in case of emergency, make a commercially reasonable effort to give Tenant 24 hours advance notice of any planned stoppage of Building Systems services for routine maintenance, repairs, alterations or improvements. Tenant shall promptly give Landlord written notice of any repair required by Landlord pursuant to this Section, after which Landlord shall make a commercially reasonable effort to effect such repair. Landlord shall not be liable for any failure to make any repairs or to perform any maintenance unless such failure shall persist for an unreasonable time after Tenant's written notice of the need for such repairs or maintenance. Tenant waives its rights under any state or local law to terminate this Lease or to make such repairs at Landlord's expense and agrees that the parties' respective rights with respect to such matters shall be solely as set forth herein. Notwithstanding anything to the contrary contained herein, repairs required as the result of fire, earthquake, flood, vandalism, war, or similar cause of damage or destruction shall be controlled by Section 18.

Notwithstanding anything to the contrary contained in this Lease, as of the Commencement Date, the maintenance and repair obligations for the Premises shall be allocated between Landlord and Tenant as set forth on **Exhibit G** attached hereto. The maintenance obligations allocated to Tenant pursuant to **Exhibit G** (the "**Tenant Maintenance Obligations**") shall be performed by Tenant at Tenant's sole cost and expense. The Tenant Maintenance Obligations shall include the procurement and maintenance of contracts, in form and substance reasonably satisfactory to Landlord, with copies to Landlord upon Landlord's written request, for and with contractors reasonably acceptable to Landlord specializing and experienced in the respective Tenant Maintenance Obligations. Notwithstanding anything to the contrary contained herein, the scope of work of any such contracts entered into by Tenant pursuant to this paragraph shall, at a minimum, comply with manufacturer's recommended maintenance procedures for the optimal performance of the applicable equipment. Landlord shall, notwithstanding anything to the contrary contained in this Lease, have no obligation to perform any Tenant Maintenance Obligations. The Tenant Maintenance Obligations shall not include the right or obligation on the part of Tenant to make any structural and/or capital repairs or improvements to the Project, and Landlord shall, during any period that Tenant is responsible for the Tenant Maintenance Obligations, continue, as part of Operating Expenses, to be responsible, as provided in the immediately preceding paragraph, for capital repairs and replacements required to be made to the Project. If Tenant fails to maintain any portion of the Premises for which Tenant is responsible as part of the Tenant Maintenance Obligations in a manner reasonably acceptable to Landlord within the requirements of this Lease, Landlord shall have the right, but not the obligation, to provide Tenant with written notice thereof and to assume the Tenant Maintenance Obligations if Tenant does not cure Tenant's failure within 15 days after receipt of such notice.

14. **Tenant's Repairs**. Subject to Section 13 hereof, Tenant, at its expense, shall repair, replace and maintain in good condition all portions of the Premises, including, without limitation, entries, doors, ceilings, interior windows, interior walls, and the interior side of demising walls. Should Tenant fail to make any such repair or replacement or fail to maintain the Premises, Landlord shall give Tenant notice of such failure. If Tenant fails to commence cure of such failure within 10 days of Landlord's notice, and thereafter diligently prosecute such cure to completion, Landlord may perform such work and shall be reimbursed by Tenant within 10 days after demand therefor; provided, however, that if such failure by Tenant creates or could create an emergency, Landlord may immediately commence cure of such failure and shall thereafter be entitled to recover the costs of such cure from Tenant. Subject to Sections 17 and 18, Tenant shall bear the full uninsured cost of any repair or replacement to any part of the Project that results from damage caused by Tenant or any Tenant Party and any repair that benefits only the Premises.

15. **Mechanic's Liens**. Tenant shall discharge, by bond or otherwise, any mechanic's lien filed against the Premises or against the Project for work claimed to have been done for, or materials claimed to have been furnished to, Tenant within 10 days after the filing thereof, at Tenant's sole cost and shall otherwise keep the Premises and the Project free from any liens arising out of work performed, materials furnished or obligations incurred by Tenant. Should Tenant fail to discharge any lien described herein, Landlord shall have the right, but not the obligation, to pay such claim or post a bond or otherwise provide security to eliminate the lien as a claim against title to the Project and the cost thereof shall be immediately due from Tenant as Additional Rent. If Tenant shall lease or finance the acquisition of office equipment, furnishings, or other personal property of a removable nature utilized by Tenant in the operation of Tenant's business, Tenant warrants that any Uniform Commercial Code Financing Statement filed as a matter of public record by any lessor or creditor of Tenant will upon its face or by exhibit thereto indicate that such Financing Statement is applicable only to removable personal property of Tenant located within the Premises. In no event shall the address of the Project be furnished on the statement without qualifying language as to applicability of the lien only to removable personal property, located in an identified suite held by Tenant.

16. **Indemnification**. Tenant hereby indemnifies and agrees to defend, save and hold Landlord, its officers, directors, employees, managers, agents, sub-agents, constituent entities and lease signators (collectively, "**Landlord Indemnified Parties**") harmless from and against any and all Claims for injury or death to persons or damage to property occurring within or about the Premises or the Project arising directly or indirectly out of use or occupancy of the Premises or the Project (including, without limitation, any act, omission or neglect by Tenant or any Tenant's Parties in or about the Premises or at the

Project) or the a breach or default by Tenant in the performance of any of its obligations hereunder, unless caused solely by the willful misconduct or gross negligence of Landlord Indemnified Parties. Landlord shall not be liable to Tenant for, and Tenant assumes all risk of damage to, personal property (including, without limitation, loss of records kept within the Premises). Tenant further waives any and all Claims for injury to Tenant's business or loss of income relating to any such damage or destruction of personal property (including, without limitation, any loss of records). Landlord Indemnified Parties shall not be liable for any damages arising from any act, omission or neglect of any tenant in the Project or of any other third party or Tenant Parties.

17. **Insurance**. Landlord shall maintain all risk property and, if applicable, sprinkler damage insurance covering the full replacement cost of the Project. Landlord shall further procure and maintain commercial general liability insurance with a single loss limit of not less than $2,000,000 for bodily injury and property damage with respect to the Project. Landlord may, but is not obligated to, maintain such other insurance and additional coverages as it may deem necessary, including, but not limited to, flood, environmental hazard and earthquake, loss or failure of building equipment, errors and omissions, rental loss during the period of repair or rebuilding, workers' compensation insurance and fidelity bonds for employees employed to perform services and insurance for any improvements installed by Tenant or which are in addition to the standard improvements customarily furnished by Landlord without regard to whether or not such are made a part of the Project. All such insurance shall be included as part of the Operating Expenses. The Project may be included in a blanket policy (in which case the cost of such insurance allocable to the Project will be determined by Landlord based upon the insurer's cost calculations). Tenant shall also reimburse Landlord for any increased premiums or additional insurance which Landlord reasonably deems necessary as a result of Tenant's use of the Premises.

Tenant, at its sole cost and expense, shall maintain during the Term: all risk property insurance with business interruption and extra expense coverage, covering the full replacement cost of all property and improvements installed or placed in the Premises by Tenant at Tenant's expense; workers' compensation insurance with no less than the minimum limits required by law; employer's liability insurance with employers liability limits of $1,000,000 bodily injury by accident – each accident, $1,000,000 bodily injury by disease – policy limit, and $1,000,000 bodily injury by disease – each employee; and commercial general liability insurance, with a minimum limit of not less than $2,000,000 per occurrence for bodily injury and property damage with respect to the Premises. The commercial general liability insurance maintained by Tenant shall name Alexandria Real Estate Equities, Inc., and Landlord, its officers, directors, employees, managers, agents, sub-agents, constituent entities and lease signators (collectively, "**Landlord Insured Parties**"), as additional insureds; insure on an occurrence and not a claims-made basis; be issued by insurance companies which have a rating of not less than policyholder rating of A- and financial category rating of at least Class VIII in "Best's Insurance Guide"; shall not be cancelable for nonpayment of premium unless 30 days prior written notice shall have been given to Landlord from the insurer; not contain a hostile fire exclusion; contain a contractual liability endorsement; and provide primary coverage to Landlord Insured Parties (any policy issued to Landlord Insured Parties providing duplicate or similar coverage shall be deemed excess over Tenant's policies, regardless of limits). Copies of such policies (if requested by Landlord), or certificates of insurance showing the limits of coverage required hereunder and showing Landlord as an additional insured, along with reasonable evidence of the payment of premiums for the applicable period, shall be delivered to Landlord by Tenant prior to (i) the earlier to occur of (x) the Commencement Date, or (y) the date that Tenant accesses the Premises under this Lease, and (ii) each renewal of said insurance. Tenant's policy may be a "blanket policy" with an aggregate per location endorsement which specifically provides that the amount of insurance shall not be prejudiced by other losses covered by the policy. Tenant shall, at least 5 days prior to the expiration of such policies, furnish Landlord with renewal certificates.

In each instance where insurance is to name Landlord as an additional insured, Tenant shall upon written request of Landlord also designate and furnish certificates so evidencing Landlord as additional insured to: (i) any lender of Landlord holding a security interest in the Project or any portion thereof, (ii) the landlord under any lease wherein Landlord is tenant of the real property on which the Project is located, if the interest of Landlord is or shall become that of a tenant under a ground or other underlying lease rather than that of a fee owner, and/or (iii) any management company retained by Landlord to manage the Project.

The property insurance obtained by Landlord and Tenant shall include a waiver of subrogation by the insurers and all rights based upon an assignment from its insured, against Landlord or Tenant, and their respective officers, directors, employees, managers, agents, invitees and contractors ("**Related Parties**"), in connection with any loss or damage thereby insured against. Neither party nor its respective Related Parties shall be liable to the other for loss or damage caused by any risk insured against under property insurance required to be maintained hereunder, and each party waives any claims against the other party, and its respective Related Parties, for such loss or damage. The failure of a party to insure its property shall not void this waiver. Landlord and its respective Related Parties shall not be liable for, and Tenant hereby waives all claims against such parties for, business interruption and losses occasioned thereby sustained by Tenant or any person claiming through Tenant resulting from any accident or occurrence in or upon the Premises or the Project from any cause whatsoever. If the foregoing waivers shall contravene any law with respect to exculpatory agreements, the liability of Landlord or Tenant shall be deemed not released but shall be secondary to the other's insurer.

Landlord may require insurance policy limits to be raised to conform with requirements of Landlord's lender and/or to bring coverage limits to levels then being generally required of new tenants within the Project.

18. **Restoration**. If, at any time during the Term, the Project or the Premises are damaged or destroyed by a fire or other insured casualty, Landlord shall notify Tenant within 60 days after discovery of such damage as to the amount of time Landlord reasonably estimates it will take to restore the Project or the Premises, as applicable (the "**Restoration Period**"). If the Restoration Period is estimated to exceed 9 months following the date of discovery of the casualty (the "**Maximum Restoration Period**"), Landlord may, in such notice, elect to terminate this Lease as of the date that is 75 days after the date of discovery of such damage or destruction; provided, however, that notwithstanding Landlord's election to restore, Tenant may elect to terminate this Lease by written notice to Landlord delivered within 10 business days of receipt of a notice from Landlord estimating a Restoration Period for the Premises longer than the Maximum Restoration Period. Unless either Landlord or Tenant so elects to terminate this Lease, Landlord shall, subject to receipt of sufficient insurance proceeds (with any deductible to be treated as a current Operating Expense), promptly restore the Premises (excluding the improvements installed by Tenant or by Landlord and paid for by Tenant), subject to delays arising from the collection of insurance proceeds, from Force Majeure events or as needed to obtain any license, clearance or other authorization of any kind required to enter into and restore the Premises issued by any Governmental Authority having jurisdiction over the use, storage, handling, treatment, generation, release, disposal, removal or remediation of Hazardous Materials (as defined in Section 30) in, on or about the Premises (collectively referred to herein as "**Hazardous Materials Clearances**"); provided, however, that if repair or restoration of the Premises is not substantially complete as of the end of the Maximum Restoration Period or, if longer, the Restoration Period, Landlord may, in its sole and absolute discretion, elect not to proceed with such repair and restoration, or Tenant may by written notice to Landlord delivered within 5 business days of the expiration of the Maximum Restoration Period or, if longer, the Restoration Period, elect to terminate this Lease, in which event Landlord shall be relieved of its obligation to make such repairs or restoration and this Lease shall terminate as of the date that is 75 days after the later of: (i) discovery of such damage or destruction, or (ii) the date all required Hazardous Materials Clearances are obtained, but Landlord shall retain any Rent paid and the right to any Rent payable by Tenant prior to such election by Landlord or Tenant.

Tenant, at its expense, shall promptly perform, subject to delays arising from the collection of insurance proceeds, from Force Majeure (as defined in Section 34) events or to obtain Hazardous Material Clearances, all repairs or restoration not required to be done by Landlord and shall promptly re-enter the Premises and commence doing business in accordance with this Lease. Notwithstanding the foregoing, either Landlord or Tenant may terminate this Lease upon written notice to the other if the Premises are damaged during the last year of the Term and Landlord reasonably estimates that it will take more than 2 months to repair such damage; provided, however, that such notice is delivered within 10 business days after the date that Landlord provides Tenant with written notice of the estimated Restoration Period. Notwithstanding anything to the contrary contained herein, Landlord shall also have the right to terminate this Lease if insurance proceeds are not available for such restoration. Rent shall be abated from the date all required Hazardous Material Clearances are obtained until the Premises are repaired and restored, in

the proportion which the area of the Premises, if any, which is not usable by Tenant bears to the total area of the Premises, unless Landlord provides Tenant with other space during the period of repair that is suitable for the temporary conduct of Tenant's business. In the event that no Hazardous Material Clearances are required to be obtained by Tenant with respect to the Premises, rent abatement shall commence on the date of discovery of the damage or destruction. Such abatement shall be the sole remedy of Tenant, and except as provided in this Section 18, Tenant waives any right to terminate the Lease by reason of damage or casualty loss.

The provisions of this Lease, including this Section 18, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, or any other portion of the Project, and any statute or regulation which is now or may hereafter be in effect shall have no application to this Lease or any damage or destruction to all or any part of the Premises or any other portion of the Project, the parties hereto expressly agreeing that this Section 18 sets forth their entire understanding and agreement with respect to such matters.

19. **Condemnation**. If the whole or any material part of the Premises or the Project is taken for any public or quasi-public use under governmental law, ordinance, or regulation, or by right of eminent domain, or by private purchase in lieu thereof (a "**Taking**" or "**Taken**"), and the Taking would in Landlord's reasonable judgment, either prevent or materially interfere with Tenant's use of the Premises or materially interfere with or impair Landlord's ownership or operation of the Project, then upon written notice by Landlord this Lease shall terminate and Rent shall be apportioned as of said date. If part of the Premises shall be Taken, and this Lease is not terminated as provided above, Landlord shall promptly restore the Premises and the Project as nearly as is commercially reasonable under the circumstances to their condition prior to such partial Taking and the rentable square footage of the Building, the rentable square footage of the Premises, Tenant's Share of Operating Expenses and the Rent payable hereunder during the unexpired Term shall be reduced to such extent as may be fair and reasonable under the circumstances. Upon any such Taking, Landlord shall be entitled to receive the entire price or award from any such Taking without any payment to Tenant, and Tenant hereby assigns to Landlord Tenant's interest, if any, in such award. Tenant shall have the right, to the extent that same shall not diminish Landlord's award, to make a separate claim against the condemning authority (but not Landlord) for such compensation as may be separately awarded or recoverable by Tenant for moving expenses and damage to Tenant's trade fixtures, if a separate award for such items is made to Tenant. Tenant hereby waives any and all rights it might otherwise have pursuant to any provision of state law to terminate this Lease upon a partial Taking of the Premises or the Project.

20. **Events of Default**. Each of the following events shall be a default ("**Default**") by Tenant under this Lease:

(a) **Payment Defaults**. Tenant shall fail to pay any installment of Rent or any other payment hereunder when due; provided, however, that Landlord will give Tenant notice and an opportunity to cure any failure to pay Rent within 5 days of any such notice not more than once in any 12 month period and Tenant agrees that such notice shall be in lieu of and not in addition to, or shall be deemed to be, any notice required by law.

(b) **Insurance**. Any insurance required to be maintained by Tenant pursuant to this Lease shall be canceled or terminated or shall expire or shall be reduced or materially changed, or Landlord shall receive a notice of nonrenewal of any such insurance and Tenant shall fail to obtain replacement insurance at least 5 days before the expiration of the current coverage.

(c) **Abandonment**. Tenant shall abandon the Premises.

(d) **Improper Transfer**. Tenant shall assign, sublease or otherwise transfer or attempt to transfer all or any portion of Tenant's interest in this Lease or the Premises except as expressly permitted herein, or Tenant's interest in this Lease shall be attached, executed upon, or otherwise judicially seized and such action is not released within 90 days of the action.

(e) **Liens**. Tenant shall fail to discharge or otherwise obtain the release of any lien placed upon the Premises in violation of this Lease within 10 days after any such lien is filed against the Premises.

(f) **Insolvency Events**. Tenant or any guarantor or surety of Tenant's obligations hereunder shall: (A) make a general assignment for the benefit of creditors; (B) commence any case, proceeding or other action seeking to have an order for relief entered on its behalf as a debtor or to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, liquidation, dissolution or composition of it or its debts or seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or of any substantial part of its property (collectively a "**Proceeding for Relief**"); (C) become the subject of any Proceeding for Relief which is not dismissed within 90 days of its filing or entry; or (D) die or suffer a legal disability (if Tenant, guarantor, or surety is an individual) or be dissolved or otherwise fail to maintain its legal existence (if Tenant, guarantor or surety is a corporation, partnership or other entity).

(g) **Estoppel Certificate or Subordination Agreement**. Tenant fails to execute any document required from Tenant under Sections 23 or 27 within 5 days after a second notice requesting such document.

(h) **Other Defaults**. Tenant shall fail to comply with any provision of this Lease other than those specifically referred to in this Section 20, and, except as otherwise expressly provided herein, such failure shall continue for a period of 30 days after written notice thereof from Landlord to Tenant.

Any notice given under Section 20(h) hereof shall: (i) specify the alleged default, (ii) demand that Tenant cure such default, (iii) be in lieu of, and not in addition to, or shall be deemed to be, any notice required under any provision of applicable law, and (iv) not be deemed a forfeiture or a termination of this Lease unless Landlord elects otherwise in such notice; provided that if the nature of Tenant's default pursuant to Section 20(h) is such that it cannot be cured by the payment of money and reasonably requires more than 30 days to cure, then Tenant shall not be deemed to be in default if Tenant commences such cure within said 30 day period and thereafter diligently prosecutes the same to completion; provided, however, that such cure shall be completed no later than 60 days from the date of Landlord's notice.

21. **Landlord's Remedies**.

(a) **Payment By Landlord; Interest**. Upon a Default by Tenant hereunder, Landlord may, without waiving or releasing any obligation of Tenant hereunder, make such payment or perform such act. All sums so paid or incurred by Landlord, together with interest thereon, from the date such sums were paid or incurred, at the annual rate equal to 12% per annum or the highest rate permitted by law (the "**Default Rate**"), whichever is less, shall be payable to Landlord on demand as Additional Rent. Nothing herein shall be construed to create or impose a duty on Landlord to mitigate any damages resulting from Tenant's Default hereunder.

(b) **Late Payment Rent**. Late payment by Tenant to Landlord of Rent and other sums due will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult and impracticable to ascertain. Such costs include, but are not limited to, processing and accounting charges and late charges which may be imposed on Landlord under any Mortgage covering the Premises. Therefore, if any installment of Rent due from Tenant is not received by Landlord within 5 days after the date such payment is due, Tenant shall pay to Landlord an additional sum equal to 6% of the overdue Rent as a late charge. Notwithstanding the foregoing, before assessing a late charge the first time in any calendar year, Landlord shall provide Tenant written notice of the delinquency and will waive the right if Tenant pays such delinquency within 5 days thereafter. The parties agree that this late charge represents a fair and reasonable estimate of the costs Landlord will incur by reason of late payment by Tenant. In addition to the late charge, Rent not paid when due shall bear interest at the Default Rate from the 5th day after the date due until paid.

(c) **Remedies**. Upon the occurrence of a Default, Landlord, at its option, without further notice or demand to Tenant, shall have in addition to all other rights and remedies provided in this Lease, at law

or in equity, the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

(i) Terminate this Lease, or at Landlord's option, Tenant's right to possession only, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy which it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor;

(ii) Upon any termination of this Lease, whether pursuant to the foregoing Section 21(c)(i) or otherwise, Landlord may recover from Tenant the following:

(A) The worth at the time of award of any unpaid rent which has been earned at the time of such termination; plus

(B) The worth at the time of award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(C) The worth at the time of award of the amount by which the unpaid rent for the balance of the Term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(D) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom, specifically including, but not limited to, brokerage commissions and advertising expenses incurred, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(E) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

The term "**rent**" as used in this Section 21 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others. As used in Sections 21(c)(ii)(A) and (B), above, the "**worth at the time of award**" shall be computed by allowing interest at the Default Rate. As used in Section 21(c)(ii)(C) above, the "**worth at the time of award**" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus 1%.

(iii) Landlord may continue this Lease in effect after Tenant's Default and recover rent as it becomes due (Landlord and Tenant hereby agreeing that Tenant has the right to sublet or assign hereunder, subject only to reasonable limitations). Accordingly, if Landlord does not elect to terminate this Lease following a Default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies hereunder, including the right to recover all Rent as it becomes due.

(iv) Whether or not Landlord elects to terminate this Lease following a Default by Tenant, Landlord shall have the right to terminate any and all subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises or may, in Landlord's sole discretion, succeed to Tenant's interest in such subleases, licenses, concessions or arrangements. Upon Landlord's election to succeed to Tenant's interest in any such subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by

Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

(v) Independent of the exercise of any other remedy of Landlord hereunder or under applicable law, Landlord may conduct an environmental test of the Premises as generally described in Section 30(d) hereof, at Tenant's expense.

(d) **Effect of Exercise**. Exercise by Landlord of any remedies hereunder or otherwise available shall not be deemed to be an acceptance of surrender of the Premises and/or a termination of this Lease by Landlord, it being understood that such surrender and/or termination can be effected only by the express written agreement of Landlord and Tenant. Any law, usage, or custom to the contrary notwithstanding, Landlord shall have the right at all times to enforce the provisions of this Lease in strict accordance with the terms hereof; and the failure of Landlord at any time to enforce its rights under this Lease strictly in accordance with same shall not be construed as having created a custom in any way or manner contrary to the specific terms, provisions, and covenants of this Lease or as having modified the same and shall not be deemed a waiver of Landlord's right to enforce one or more of its rights in connection with any subsequent default. A receipt by Landlord of Rent or other payment with knowledge of the breach of any covenant hereof shall not be deemed a waiver of such breach, and no waiver by Landlord of any provision of this Lease shall be deemed to have been made unless expressed in writing and signed by Landlord. To the greatest extent permitted by law, Tenant waives the service of notice of Landlord's intention to re-enter, re-take or otherwise obtain possession of the Premises as provided in any statute, or to institute legal proceedings to that end, and also waives all right of redemption in case Tenant shall be dispossessed by a judgment or by warrant of any court or judge. Any reletting of the Premises or any portion thereof shall be on such terms and conditions as Landlord in its sole discretion may determine. Landlord shall not be liable for, nor shall Tenant's obligations hereunder be diminished because of, Landlord's failure to relet the Premises or collect rent due in respect of such reletting or otherwise to mitigate any damages arising by reason of Tenant's Default.

22. **Assignment and Subletting**.

(a) **General Prohibition**. Without Landlord's prior written consent subject to and on the conditions described in this Section 22, Tenant shall not, directly or indirectly, voluntarily or by operation of law, assign this Lease or sublease the Premises or any part thereof or mortgage, pledge, or hypothecate its leasehold interest or grant any concession or license within the Premises, and any attempt to do any of the foregoing shall be void and of no effect. If Tenant is a corporation, partnership or limited liability company, the shares or other ownership interests thereof which are not actively traded upon a stock exchange or in the over-the-counter market, a transfer or series of transfers whereby 25% or more of the issued and outstanding shares or other ownership interests of such corporation are, or voting control is, transferred (but excepting transfers upon deaths of individual owners) from a person or persons or entity or entities which were owners thereof at time of execution of this Lease to persons or entities who were not owners of shares or other ownership interests of the corporation, partnership or limited liability company at time of execution of this Lease, shall be deemed an assignment of this Lease requiring the consent of Landlord as provided in this Section 22. Notwithstanding the foregoing, Tenant shall have the right to obtain financing from institutional investors (including venture capital funding and corporate partners) or undergo a public offering which results in a change in control of Tenant without such change of control constituting an assignment under this Section 22 requiring Landlord consent, provided that (i) Tenant notifies Landlord in writing of the financing at least 5 business days prior to the closing of the financing, and (ii) provided that in no event shall such financing result in a change in use of the Premises from the use contemplated by Tenant at the commencement of the Term.

(b) **Permitted Transfers**. If Tenant desires to assign, sublease, hypothecate or otherwise transfer this Lease or sublet the Premises, then at least 15 business days, but not more than 45 business days, before the date Tenant desires the assignment or sublease to be effective (the "**Assignment Date**"), Tenant shall give Landlord a notice (the "**Assignment Notice**") containing such information about the proposed assignee or sublessee, including the proposed use of the Premises and any Hazardous Materials proposed to be used, stored handled, treated, generated in or released or disposed of from the Premises,

the Assignment Date, any relationship between Tenant and the proposed assignee or sublessee, and all material terms and conditions of the proposed assignment or sublease, including a copy of any proposed assignment or sublease in its final form, and such other information as Landlord may deem reasonably necessary or appropriate to its consideration whether to grant its consent. Landlord may, by giving written notice to Tenant within 15 business days after receipt of the Assignment Notice: (i) grant such consent (provided that Landlord shall further have the right to review and approve or disapprove the proposed form of sublease prior to the effective date of any such subletting), (ii) if the assignment or subletting is for all or substantially all of the Premises for substantially the remainder of the Term, refuse such consent, in its reasonable discretion; or (iii) with respect to any assignment or with respect to any sublease that would result in more than 50% of the Premises being subleased for all or substantially all of the remainder of the Term, terminate this Lease with respect to the space described in the Assignment Notice as of the Assignment Date (an "**Assignment Termination**"). Among other reasons, it shall be reasonable for Landlord to withhold its consent in any of these instances: (1) the proposed assignee or subtenant is a governmental agency; (2) in Landlord's reasonable judgment, the use of the Premises by the proposed assignee or subtenant would entail any alterations that would lessen the value of the leasehold improvements in the Premises, or would require increased services by Landlord; (3) in Landlord's reasonable judgment, the proposed assignee or subtenant is engaged in areas of scientific research or other business concerns that are controversial such that they may (i) attract or cause negative publicity for or about the Building or the Project, (ii) negatively affect the reputation of the Building, the Project or Landlord, (iii) attract protestors to the Building or the Project, or (iv) lessen the attractiveness of the Building or the Project to any tenants or prospective tenants, purchasers or lenders; (4) in Landlord's reasonable judgment, the proposed assignee or subtenant lacks the creditworthiness to support the financial obligations it will incur under the proposed assignment or sublease; (5) in Landlord's reasonable judgment, the character, reputation, or business of the proposed assignee or subtenant is inconsistent with the desired tenant-mix or the quality of other tenancies in the Project or is inconsistent with the type and quality of the nature of the Building; (6) Landlord has received from any prior landlord to the proposed assignee or subtenant a negative report concerning such prior landlord's experience with the proposed assignee or subtenant; (7) Landlord has experienced previous defaults by or is in litigation with the proposed assignee or subtenant; (8) the use of the Premises by the proposed assignee or subtenant will violate any applicable Legal Requirement; (9) the proposed assignee or subtenant is then an occupant of the Project and Landlord has comparable space available in the Project to meet such assignee or subtenant's needs; (10) the proposed assignee or subtenant is an entity with whom Landlord is negotiating to lease space in the Project and Landlord has comparable space available in the Project to meet such assignee or subtenant's needs; or (11) the assignment or sublease is prohibited by Landlord's lender. If Landlord delivers notice of its election to exercise an Assignment Termination, Tenant shall have the right to withdraw such Assignment Notice by written notice to Landlord of such election within 5 business days after Landlord's notice electing to exercise the Assignment Termination. If Tenant withdraws such Assignment Notice, this Lease shall continue in full force and effect. If Tenant does not withdraw such Assignment Notice, this Lease, and the term and estate herein granted, shall terminate as of the Assignment Date with respect to the space described in such Assignment Notice. No failure of Landlord to exercise any such option to terminate this Lease, or to deliver a timely notice in response to the Assignment Notice, shall be deemed to be Landlord's consent to the proposed assignment, sublease or other transfer. Tenant shall pay to Landlord a fee equal to Two Thousand Five Hundred Dollars ($2,500) in connection with its consideration of any Assignment Notice and/or its preparation or review of any consent documents. Notwithstanding the foregoing, Landlord's consent to an assignment of this Lease or a subletting of any portion of the Premises to any entity controlling, controlled by or under common control with Tenant (a "**Control Permitted Assignment**") shall not be required, provided that Landlord shall have the right to approve the form of any such sublease or assignment, which approval shall not be unreasonably withheld, conditions or delayed. In addition, Tenant shall have the right to assign this Lease, upon 30 days prior written notice to Landlord but without obtaining Landlord's prior written consent, to a corporation or other entity which is a successor-in-interest to Tenant, by way of merger, consolidation or corporate reorganization, or by the purchase of all or substantially all of the assets or the ownership interests of Tenant provided that (i) such merger or consolidation, or such acquisition or assumption, as the case may be, is for a good business purpose and not principally for the purpose of transferring the Lease, and (ii) the net worth (as determined in accordance with generally accepted accounting principles ("**GAAP**")) of the assignee is not less than the greater of the net worth (as determined in accordance with GAAP) of Tenant as of (A) the Commencement Date, or (B)

as of the date of Tenant's most current quarterly or annual financial statements, and (iii) such assignee shall agree in writing to assume all of the terms, covenants and conditions of this Lease (a "**Corporate Permitted Assignment**"). Control Permitted Assignments and Corporate Permitted Assignments are hereinafter referred to as "**Permitted Assignments**."

(c) **Additional Conditions**. As a condition to any such assignment or subletting, whether or not Landlord's consent is required, Landlord may require:

(i) that any assignee or subtenant agree, in writing at the time of such assignment or subletting, that if Landlord gives such party notice that Tenant is in default under this Lease, such party shall thereafter make all payments otherwise due Tenant directly to Landlord, which payments will be received by Landlord without any liability except to credit such payment against those due under the Lease, and any such third party shall agree to attorn to Landlord or its successors and assigns should this Lease be terminated for any reason; provided, however, in no event shall Landlord or its successors or assigns be obligated to accept such attornment; and

(ii) A list of Hazardous Materials, certified by the proposed assignee or sublessee to be true and correct, which the proposed assignee or sublessee intends to use, store, handle, treat, generate in or release or dispose of from the Premises, together with copies of all documents relating to such use, storage, handling, treatment, generation, release or disposal of Hazardous Materials by the proposed assignee or subtenant in the Premises or on the Project, prior to the proposed assignment or subletting, including, without limitation: permits; approvals; reports and correspondence; storage and management plans; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); and all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks. Neither Tenant nor any such proposed assignee or subtenant is required, however, to provide Landlord with any portion(s) of the such documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities.

(d) **No Release of Tenant, Sharing of Excess Rents**. Notwithstanding any assignment or subletting, Tenant and any guarantor or surety of Tenant's obligations under this Lease shall at all times remain fully and primarily responsible and liable for the payment of Rent and for compliance with all of Tenant's other obligations under this Lease. If the Rent due and payable by a sublessee or assignee (or a combination of the rental payable under such sublease or assignment plus any bonus or other consideration therefor or incident thereto in any form) exceeds the sum of the rental payable under this Lease, (excluding however, any Rent payable under this Section) and actual and reasonable brokerage fees, legal costs and any design or construction fees directly related to and required pursuant to the terms of any such sublease) ("**Excess Rent**"), then Tenant shall be bound and obligated to pay Landlord as Additional Rent hereunder 50% of such Excess Rent within 10 days following receipt thereof by Tenant. If Tenant shall sublet the Premises or any part thereof, Tenant hereby immediately and irrevocably assigns to Landlord, as security for Tenant's obligations under this Lease, all rent from any such subletting, and Landlord as assignee and as attorney-in-fact for Tenant, or a receiver for Tenant appointed on Landlord's application, may collect such rent and apply it toward Tenant's obligations under this Lease; except that, until the occurrence of a Default, Tenant shall have the right to collect such rent.

(e) **No Waiver**. The consent by Landlord to an assignment or subletting shall not relieve Tenant or any assignees of this Lease or any sublessees of the Premises from obtaining the consent of Landlord to any further assignment or subletting nor shall it release Tenant or any assignee or sublessee of Tenant from full and primary liability under the Lease. The acceptance of Rent hereunder, or the acceptance of performance of any other term, covenant, or condition thereof, from any other person or entity shall not be deemed to be a waiver of any of the provisions of this Lease or a consent to any subletting, assignment or other transfer of the Premises.

(f) **Prior Conduct of Proposed Transferee**. Notwithstanding any other provision of this Section 22, if (i) the proposed assignee or sublessee of Tenant has been required by any prior landlord, lender or Governmental Authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question, (ii) the proposed assignee or sublessee is subject to an enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority), or (iii) because of the existence of a pre-existing environmental condition in the vicinity of or underlying the Project, the risk that Landlord would be targeted as a responsible party in connection with the remediation of such pre-existing environmental condition would be materially increased or exacerbated by the proposed use of Hazardous Materials by such proposed assignee or sublessee, Landlord shall have the absolute right to refuse to consent to any assignment or subletting to any such party.

23. **Estoppel Certificate**. Tenant shall, within 10 business days of written notice from Landlord, execute, acknowledge and deliver a statement in writing in any form reasonably requested by a proposed lender or purchaser, (i) certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying that this Lease as so modified is in full force and effect) and the dates to which the rental and other charges are paid in advance, if any, (ii) acknowledging that there are not any uncured defaults on the part of Landlord hereunder, or specifying such defaults if any are claimed, and (iii) setting forth such further information with respect to the status of this Lease or the Premises as may be requested thereon. Any such statement may be relied upon by any prospective purchaser or encumbrancer of all or any portion of the real property of which the Premises are a part. Tenant's failure to deliver such statement within 5 days after the delivery of a second written request for such certificate from Landlord, at the option of Landlord, constitute a Default under this Lease, and, in any event, shall be conclusive upon Tenant that the Lease is in full force and effect and without modification except as may be represented by Landlord in any certificate prepared by Landlord and delivered to Tenant for execution.

24. **Quiet Enjoyment**. So long as Tenant is not in Default under this Lease, Tenant shall, subject to the terms of this Lease, at all times during the Term, have peaceful and quiet enjoyment of the Premises against any person claiming by, through or under Landlord.

25. **Prorations**. All prorations required or permitted to be made hereunder shall be made on the basis of a 360 day year and 30 day months.

26. **Rules and Regulations**. Tenant shall, at all times during the Term and any extension thereof, comply with all reasonable rules and regulations at any time or from time to time established by Landlord covering use of the Premises and the Project. The current rules and regulations are attached hereto as **Exhibit E**. If there is any conflict between said rules and regulations and other provisions of this Lease, the terms and provisions of this Lease shall control. Landlord shall not have any liability or obligation for the breach of any rules or regulations by other tenants in the Project and shall not enforce such rules and regulations in a discriminatory manner.

27. **Subordination**. This Lease and Tenant's interest and rights hereunder are hereby made and shall be subject and subordinate at all times to the lien of any Mortgage now existing or hereafter created on or against the Project or the Premises, and all amendments, restatements, renewals, modifications, consolidations, refinancing, assignments and extensions thereof, without the necessity of any further instrument or act on the part of Tenant; provided, however that so long as there is no Default hereunder, Tenant's right to possession of the Premises shall not be disturbed by the Holder of any such Mortgage. Tenant agrees, at the election of the Holder of any such Mortgage, to attorn to any such Holder. Tenant agrees upon demand to execute, acknowledge and deliver such instruments, confirming such subordination, and such instruments of attornment as shall be requested by any such Holder, provided any such instruments contain appropriate non-disturbance provisions assuring Tenant's quiet enjoyment of the Premises as set forth in Section 24 hereof. Notwithstanding the foregoing, any such Holder may at any time subordinate its Mortgage to this Lease, without Tenant's consent, by notice in writing to Tenant, and

thereupon this Lease shall be deemed prior to such Mortgage without regard to their respective dates of execution, delivery or recording and in that event such Holder shall have the same rights with respect to this Lease as though this Lease had been executed prior to the execution, delivery and recording of such Mortgage and had been assigned to such Holder. The term "**Mortgage**" whenever used in this Lease shall be deemed to include deeds of trust, security assignments and any other encumbrances, and any reference to the "**Holder**" of a Mortgage shall be deemed to include the beneficiary under a deed of trust.

28. **Surrender**. Upon the expiration of the Term or earlier termination of Tenant's right of possession, Tenant shall surrender the Premises to Landlord in the same condition as received, subject to any Alterations or Installations permitted by Landlord to remain in the Premises, free of Hazardous Materials brought upon, kept, used, stored, handled, treated, generated in, or released or disposed of from, the Premises by any person other than a Landlord Party (collectively, "**Tenant HazMat Operations**") and released of all Hazardous Materials Clearances, broom clean, ordinary wear and tear and casualty loss and condemnation covered by Sections 18 and 19 excepted. At least 3 months prior to the surrender of the Premises, Tenant shall deliver to Landlord a narrative description of the actions proposed (or required by any Governmental Authority) to be taken by Tenant in order to surrender the Premises (including any Installations permitted by Landlord to remain in the Premises) at the expiration or earlier termination of the Term, free from any residual impact from the Tenant HazMat Operations and otherwise released for unrestricted use and occupancy (the "**Surrender Plan**"). Such Surrender Plan shall be accompanied by a current listing of (i) all Hazardous Materials licenses and permits held by or on behalf of any Tenant Party with respect to the Premises, and (ii) all Hazardous Materials used, stored, handled, treated, generated, released or disposed of from the Premises, and shall be subject to the review and approval of Landlord's environmental consultant. In connection with the review and approval of the Surrender Plan, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such additional non-proprietary information concerning Tenant HazMat Operations as Landlord shall request. On or before such surrender, Tenant shall deliver to Landlord evidence that the approved Surrender Plan shall have been satisfactorily completed and Landlord shall have the right, subject to reimbursement at Tenant's expense as set forth below, to cause Landlord's environmental consultant to inspect the Premises and perform such additional procedures as may be deemed reasonably necessary to confirm that the Premises are, as of the effective date of such surrender or early termination of the Lease, free from any residual impact from Tenant HazMat Operations. Tenant shall reimburse Landlord, as Additional Rent, for the actual out-of pocket expense incurred by Landlord for Landlord's environmental consultant to review and approve the Surrender Plan and to visit the Premises and verify satisfactory completion of the same, which cost shall not exceed $5,000. Landlord shall have the unrestricted right to deliver such Surrender Plan and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties.

If Tenant shall fail to prepare or submit a Surrender Plan approved by Landlord, or if Tenant shall fail to complete the approved Surrender Plan, or if such Surrender Plan, whether or not approved by Landlord, shall fail to adequately address any residual effect of Tenant HazMat Operations in, on or about the Premises, Landlord shall have the right to take such actions as Landlord may deem reasonable or appropriate to assure that the Premises and the Project are surrendered free from any residual impact from Tenant HazMat Operations, the cost of which actions shall be reimbursed by Tenant as Additional Rent, without regard to the limitation set forth in the first paragraph of this Section 28.

Tenant shall immediately return to Landlord all keys and/or access cards to parking, the Project, restrooms or all or any portion of the Premises furnished to or otherwise procured by Tenant. If any such access card or key is lost, Tenant shall pay to Landlord, at Landlord's election, either the cost of replacing such lost access card or key or the cost of reprogramming the access security system in which such access card was used or changing the lock or locks opened by such lost key. Any Tenant's Property, Alterations and property not so removed by Tenant as permitted or required herein shall be deemed abandoned and may be stored, removed, and disposed of by Landlord at Tenant's expense, and Tenant waives all claims against Landlord for any damages resulting from Landlord's retention and/or disposition of such property. All obligations of Tenant hereunder not fully performed as of the termination of the Term, including the obligations of Tenant under Section 30 hereof, shall survive the expiration or earlier termination of the Term, including, without limitation, indemnity obligations, payment obligations with respect to Rent and obligations concerning the condition and repair of the Premises.

29. **Waiver of Jury Trial**. TO THE EXTENT PERMITTED BY LAW, TENANT AND LANDLORD WAIVE ANY RIGHT TO TRIAL BY JURY OR TO HAVE A JURY PARTICIPATE IN RESOLVING ANY DISPUTE, WHETHER SOUNDING IN CONTRACT, TORT, OR OTHERWISE, BETWEEN LANDLORD AND TENANT ARISING OUT OF THIS LEASE OR ANY OTHER INSTRUMENT, DOCUMENT, OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HEREWITH OR THE TRANSACTIONS RELATED HERETO.

30. **Environmental Requirements**.

(a) **Prohibition/Compliance/Indemnity**. Tenant shall not cause or permit any Hazardous Materials (as hereinafter defined) to be brought upon, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises or the Project in violation of applicable Environmental Requirements (as hereinafter defined) by Tenant or any Tenant Party. If Tenant breaches the obligation stated in the preceding sentence, or if the presence of Hazardous Materials in the Premises during the Term or any holding over results in contamination of the Premises, the Project or any adjacent property or if contamination of the Premises, the Project or any adjacent property by Hazardous Materials brought into, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises by anyone other than Landlord and Landlord's employees, agents and contractors otherwise occurs during the Term or any holding over, Tenant hereby indemnifies and shall defend and hold Landlord, its officers, directors, employees, agents and contractors harmless from any and all actions (including, without limitation, remedial or enforcement actions of any kind, administrative or judicial proceedings, and orders or judgments arising out of or resulting therefrom), costs, claims, damages (including, without limitation, punitive damages and damages based upon diminution in value of the Premises or the Project, or the loss of, or restriction on, use of the Premises or any portion of the Project), expenses (including, without limitation, attorneys', consultants' and experts' fees, court costs and amounts paid in settlement of any claims or actions), fines, forfeitures or other civil, administrative or criminal penalties, injunctive or other relief (whether or not based upon personal injury, property damage, or contamination of, or adverse effects upon, the environment, water tables or natural resources), liabilities or losses (collectively, "**Environmental Claims**") which arise during or after the Term as a result of such contamination. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, treatment, remedial, removal, or restoration work required by any federal, state or local Governmental Authority because of Hazardous Materials present in the air, soil or ground water above, on, or under the Premises. Without limiting the foregoing, if the presence of any Hazardous Materials on the Premises, the Building, the Project or any adjacent property caused or permitted by Tenant or any Tenant Party results in any contamination of the Premises, the Building, the Project or any adjacent property, Tenant shall promptly take all actions at its sole expense and in accordance with applicable Environmental Requirements as are necessary to return the Premises, the Building, the Project or any adjacent property to the condition existing prior to the time of such contamination, provided that Landlord's approval of such action shall first be obtained, which approval shall not unreasonably be withheld so long as such actions would not potentially have any material adverse long-term or short-term effect on the Premises, the Building or the Project. Notwithstanding anything to the contrary contained in Section 28 or this Section 30, Tenant shall not be responsible for, and the indemnification and hold harmless obligation set forth in this paragraph shall not apply to (i) contamination in the Premises which Tenant can prove to Landlord's reasonable satisfaction existed in the Premises immediately prior to the Commencement Date, or (ii) the presence of any Hazardous Materials in the Premises which Tenant can prove to Landlord's reasonable satisfaction migrated from outside of the Premises into the Premises, unless in either case, the presence of such Hazardous Materials (x) is the result of a breach by Tenant of any of its obligations under this Lease, or (y) was caused, contributed to or exacerbated by Tenant or any Tenant Party.

(b) **Business**. Landlord acknowledges that it is not the intent of this Section 30 to prohibit Tenant from using the Premises for the Permitted Use. Tenant may operate its business according to prudent industry practices so long as the use or presence of Hazardous Materials is strictly and properly monitored according to all then applicable Environmental Requirements. As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord prior to the Commencement Date a list identifying each type of Hazardous Materials to be brought upon, kept, used, stored, handled, treated, generated on, or released or disposed of from, the

Premises and setting forth any and all governmental approvals or permits required in connection with the presence, use, storage, handling, treatment, generation, release or disposal of such Hazardous Materials on or from the Premises ("**Hazardous Materials List**"). Upon Landlord's request, or any time that Tenant is required to deliver a Hazardous Materials List to any Governmental Authority (e.g., the fire department) in connection with Tenant's use or occupancy of the Premises, Tenant shall deliver to Landlord a copy of such Hazardous Materials List. Tenant shall deliver to Landlord true and correct copies of the following documents (the "**Haz Mat Documents**") relating to the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials prior to the Commencement Date, or if unavailable at that time, concurrent with the receipt from or submission to a Governmental Authority: permits; approvals; reports and correspondence; storage and management plans, notice of violations of any Legal Requirements; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given Tenant its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks; and a Surrender Plan (to the extent surrender in accordance with Section 28 cannot be accomplished in 3 months). Tenant is not required, however, to provide Landlord with any portion(s) of the Haz Mat Documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities. It is not the intent of this Section to provide Landlord with information which could be detrimental to Tenant's business should such information become possessed by Tenant's competitors.

(c) **Tenant Representation and Warranty**. Tenant hereby represents and warrants to Landlord that (i) neither Tenant nor any of its legal predecessors has been required by any prior landlord, lender or Governmental Authority at any time to take remedial action in connection with Hazardous Materials contaminating a property which contamination was permitted by Tenant of such predecessor or resulted from Tenant's or such predecessor's action or use of the property in question, and (ii) Tenant is not subject to any enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority). If Landlord determines that this representation and warranty was not true as of the date of this lease, Landlord shall have the right to terminate this Lease in Landlord's sole and absolute discretion.

(d) **Testing**. Landlord shall have the right to conduct annual tests of the Premises to determine whether any contamination of the Premises or the Project has occurred as a result of Tenant's use. Tenant shall be required to pay the cost of such annual test of the Premises if there is violation of this Section 30 or if contamination for which Tenant is responsible under this Section 30 is identified; provided, however, that if Tenant conducts its own tests of the Premises using third party contractors and test procedures reasonably acceptable to Landlord which tests are certified to Landlord, Landlord shall accept such tests in lieu of the annual tests to be paid for by Tenant. In addition, at any time, and from time to time, prior to the expiration or earlier termination of the Term, Landlord shall have the right to conduct appropriate tests of the Premises and the Project to determine if contamination has occurred as a result of Tenant's use of the Premises. In connection with such testing, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such non-proprietary information concerning the use of Hazardous Materials in or about the Premises by Tenant or any Tenant Party. If contamination has occurred for which Tenant is liable under this Section 30, Tenant shall pay all costs to conduct such tests. If no such contamination is found, Landlord shall pay the costs of such tests (which shall not constitute an Operating Expense). Landlord shall provide Tenant with a copy of all third party, non-confidential reports and tests of the Premises made by or on behalf of Landlord during the Term without representation or warranty and subject to a confidentiality agreement. Tenant shall, at its sole cost and expense, promptly and satisfactorily remediate any environmental conditions identified by such testing in accordance with all Environmental Requirements. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights which Landlord may have against Tenant.

(e) **Control Areas**. Tenant shall be allowed to utilize up to its pro rata share of the Hazardous Materials inventory within any control area or zone (located within the Premises), as designated by the applicable building code, for chemical use or storage. As used in the preceding sentence, Tenant's pro

rata share of any control areas or zones located within the Premises shall be determined based on the rentable square footage that Tenant leases within the applicable control area or zone. For purposes of example only, if a control area or zone contains 10,000 rentable square feet and 2,000 rentable square feet of a tenant's premises are located within such control area or zone (while such premises as a whole contains 5,000 rentable square feet), the applicable tenant's pro rata share of such control area would be 20%.

(f) **Underground Tanks**. Tenant shall have no right to use or install any underground or other storage tanks at the Project.

(g) **Tenant's Obligations**. Tenant's obligations under this Section 30 shall survive the expiration or earlier termination of the Lease. During any period of time after the expiration or earlier termination of this Lease required by Tenant or Landlord to complete the removal from the Premises of any Hazardous Materials (including, without limitation, the release and termination of any licenses or permits restricting the use of the Premises and the completion of the approved Surrender Plan), Tenant shall continue to pay the full Rent in accordance with this Lease for any portion of the Premises not relet by Landlord in Landlord's sole discretion, which Rent shall be prorated daily.

(h) **Definitions**. As used herein, the term "**Environmental Requirements**" means all applicable present and future statutes, regulations, ordinances, rules, codes, judgments, orders or other similar enactments of any Governmental Authority regulating or relating to health, safety, or environmental conditions on, under, or about the Premises or the Project, or the environment, including without limitation, the following: the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; and all state and local counterparts thereto, and any regulations or policies promulgated or issued thereunder. As used herein, the term "**Hazardous Materials**" means and includes any substance, material, waste, pollutant, or contaminant listed or defined as hazardous or toxic, or regulated by reason of its impact or potential impact on humans, animals and/or the environment under any Environmental Requirements, asbestos and petroleum, including crude oil or any fraction thereof, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). As defined in Environmental Requirements, Tenant is and shall be deemed to be the "**operator**" of Tenant's "**facility**" and the "**owner**" of all Hazardous Materials brought on the Premises by Tenant or any Tenant Party, and the wastes, by-products, or residues generated, resulting, or produced therefrom.

31. **Tenant's Remedies/Limitation of Liability**. Landlord shall not be in default hereunder unless Landlord fails to perform any of its obligations hereunder within 30 days after written notice from Tenant specifying such failure (unless such performance will, due to the nature of the obligation, require a period of time in excess of 30 days, then after such period of time as is reasonably necessary). Upon any default by Landlord, Tenant shall give notice by registered or certified mail to any Holder of a Mortgage covering the Premises and to any landlord of any lease of property in or on which the Premises are located and Tenant shall offer such Holder and/or landlord a reasonable opportunity to cure the default, including time to obtain possession of the Project by power of sale or a judicial action if such should prove necessary to effect a cure; provided Landlord shall have furnished to Tenant in writing the names and addresses of all such persons who are to receive such notices. All obligations of Landlord hereunder shall be construed as covenants, not conditions; and, except as may be otherwise expressly provided in this Lease, Tenant may not terminate this Lease for breach of Landlord's obligations hereunder.

All obligations of Landlord under this Lease will be binding upon Landlord only during the period of its ownership of the Premises and not thereafter. The term "**Landlord**" in this Lease shall mean only the owner for the time being of the Premises. Upon the transfer by such owner of its interest in the Premises, such owner shall thereupon be released and discharged from all obligations of Landlord thereafter accruing, but such obligations shall be binding during the Term upon each new owner for the duration of such owner's ownership.

32. **Inspection and Access**. Landlord and its agents, representatives, and contractors may enter the Premises at any reasonable time to inspect the Premises and to make such repairs as may be

required or permitted pursuant to this Lease and for any other business purpose. Landlord and Landlord's representatives may enter the Premises during business hours on not less than 48 hours advance written notice (except in the case of emergencies in which case no such notice shall be required and such entry may be at any time) for the purpose of effecting any such repairs, inspecting the Premises, showing the Premises to prospective purchasers and, during the last 18 months of the Term, to prospective tenants or for any other business purpose. Landlord may erect a suitable sign on the Premises stating the Premises are available to let or that the Project is available for sale. Landlord may grant easements, make public dedications, designate Common Areas and create restrictions on or about the Premises, provided that no such easement, dedication, designation or restriction materially, adversely affects Tenant's use or occupancy of the Premises for the Permitted Use. At Landlord's request, Tenant shall execute such instruments as may be necessary for such easements, dedications or restrictions. Tenant shall at all times, except in the case of emergencies, have the right to escort Landlord or its agents, representatives, contractors or guests while the same are in the Premises, provided such escort does not materially and adversely affect Landlord's access rights hereunder.

Subject to the terms of this Section 32, Landlord may from time to time during the Term, during regular business hours and/or otherwise at times mutually acceptable to Landlord and Tenant, conduct third party tours of the Premises ("**Tours**"), which Tours may be held with not less than 1 business day's advance notice.

33. **Security**. Tenant acknowledges and agrees that security devices and services, if any, while intended to deter crime may not in given instances prevent theft or other criminal acts and that Landlord is not providing any security services with respect to the Premises. Tenant agrees that Landlord shall not be liable to Tenant for, and Tenant waives any claim against Landlord with respect to, any loss by theft or any other damage suffered or incurred by Tenant in connection with any unauthorized entry into the Premises or any other breach of security with respect to the Premises. Tenant shall be solely responsible for the personal safety of Tenant's officers, employees, agents, contractors, guests and invitees while any such person is in, on or about the Premises and/or the Project. Tenant shall at Tenant's cost obtain insurance coverage to the extent Tenant desires protection against such criminal acts.

34. **Force Majeure**. Except for the payment of Rent, neither Landlord nor Tenant shall be held responsible or liable for delays in the performance of its obligations hereunder when caused by, related to, or arising out of acts of God, sinkholes or subsidence, strikes, lockouts, or other labor disputes, embargoes, quarantines, weather, national, regional, or local disasters, calamities, or catastrophes, inability to obtain labor or materials (or reasonable substitutes therefor) at reasonable costs or failure of, or inability to obtain, utilities necessary for performance, governmental restrictions, orders, limitations, regulations, or controls, national emergencies, delay in issuance or revocation of permits, enemy or hostile governmental action, terrorism, insurrection, riots, civil disturbance or commotion, fire or other casualty, and other causes or events beyond their reasonable control ("**Force Majeure**").

35. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with this transaction and that no Broker brought about this transaction, other than Cushman & Wakefield. Landlord and Tenant each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker, other than the broker, if any named in this Section 35, claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.

36. **Limitation on Landlord's Liability**. NOTWITHSTANDING ANYTHING SET FORTH HEREIN OR IN ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT TO THE CONTRARY: (A) LANDLORD SHALL NOT BE LIABLE TO TENANT OR ANY OTHER PERSON FOR (AND TENANT AND EACH SUCH OTHER PERSON ASSUME ALL RISK OF) LOSS, DAMAGE OR INJURY, WHETHER ACTUAL OR CONSEQUENTIAL TO: TENANT'S PERSONAL PROPERTY OF EVERY KIND AND DESCRIPTION, INCLUDING, WITHOUT LIMITATION TRADE FIXTURES, EQUIPMENT, INVENTORY, SCIENTIFIC RESEARCH, SCIENTIFIC EXPERIMENTS, LABORATORY ANIMALS, PRODUCT, SPECIMENS, SAMPLES, AND/OR SCIENTIFIC, BUSINESS, ACCOUNTING AND OTHER RECORDS OF EVERY KIND AND DESCRIPTION KEPT AT THE PREMISES AND ANY AND ALL INCOME DERIVED

OR DERIVABLE THEREFROM; (B) THERE SHALL BE NO PERSONAL RECOURSE TO LANDLORD FOR ANY ACT OR OCCURRENCE IN, ON OR ABOUT THE PREMISES OR ARISING IN ANY WAY UNDER THIS LEASE OR ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT WITH RESPECT TO THE SUBJECT MATTER HEREOF AND ANY LIABILITY OF LANDLORD HEREUNDER SHALL BE STRICTLY LIMITED SOLELY TO LANDLORD'S INTEREST IN THE PROJECT OR ANY PROCEEDS FROM SALE OR CONDEMNATION THEREOF AND ANY INSURANCE PROCEEDS PAYABLE IN RESPECT OF LANDLORD'S INTEREST IN THE PROJECT OR IN CONNECTION WITH ANY SUCH LOSS; AND (C) IN NO EVENT SHALL ANY PERSONAL LIABILITY BE ASSERTED AGAINST LANDLORD IN CONNECTION WITH THIS LEASE NOR SHALL ANY RECOURSE BE HAD TO ANY OTHER PROPERTY OR ASSETS OF LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS. UNDER NO CIRCUMSTANCES SHALL LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS BE LIABLE FOR INJURY TO TENANT'S BUSINESS OR FOR ANY LOSS OF INCOME OR PROFIT THEREFROM.

37. **Severability**. If any clause or provision of this Lease is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Lease shall not be affected thereby. It is also the intention of the parties to this Lease that in lieu of each clause or provision of this Lease that is illegal, invalid or unenforceable, there be added, as a part of this Lease, a clause or provision as similar in effect to such illegal, invalid or unenforceable clause or provision as shall be legal, valid and enforceable.

38. **Signs; Exterior Appearance**. Tenant shall not, without the prior written consent of Landlord, which may be granted or withheld in Landlord's sole discretion: (i) attach any awnings, exterior lights, decorations, balloons, flags, pennants, banners, painting or other projection to any outside wall of the Project, (ii) use any curtains, blinds, shades or screens other than Landlord's standard window coverings, (iii) coat or otherwise sunscreen the interior or exterior of any windows, (iv) place any bottles, parcels, or other articles on the window sills, (v) place any equipment, furniture or other items of personal property on any exterior balcony, or (vi) paint, affix or exhibit on any part of the Premises or the Project any signs, notices, window or door lettering, placards, decorations, or advertising media of any type which can be viewed from the exterior of the Premises. Tenant's name on the directory tablet shall be inscribed, painted or affixed for Tenant by Landlord at the sole cost and expense of Landlord, and shall be of a size, color and type, and in locations acceptable to Landlord. Nothing may be placed on the exterior of corridor walls or corridor doors other than Landlord's standard lettering. The directory tablet shall be provided exclusively for the display of the name and location of tenants.

39. **Right to Expand**.

(a) **Right of First Refusal**. So long as Tenant is occupying 100% of the Premises, then, subject to the provisions of this Section 39, each time after the date of this Lease and prior to the expiration of the Base Term that Landlord intends to accept a bona fide written proposal (the "**Pending Deal**") to lease all or any portion the First Refusal Space (as hereinafter defined) to a third party, Landlord shall deliver to Tenant written notice (the "**Pending Deal Notice**") of the existence of such Pending Deal and the material terms of such Pending Deal. For purposes of this Section 39(a), "**First Refusal Space**" shall mean that certain portion of the Building commonly known as Suite 200D, containing approximately 8,386 rentable square feet, to the extent such space is not occupied by a tenant or which is occupied by a then existing tenant whose lease is expiring within 9 months or less and such tenant does not wish to renew (whether or not such tenant has a right to renew) its occupancy of such space. For the avoidance of doubt, Tenant shall be required to exercise its right under this Section 39(a) with respect to all of the space described in the Pending Deal Notice, including any space in addition to the First Refusal Space that is described in the Pending Deal Notice, which additional space shall be deemed to be included as part of the First Refusal Space. Within 5 days after Tenant's receipt of the Pending Deal Notice, Tenant shall deliver to Landlord written notice (the "**Space Acceptance Notice**") if Tenant elects to lease the First Refusal Space. Tenant's right to receive the Pending Deal Notice and election to lease or not lease the First Refusal Space pursuant to this Section 39(a) is hereinafter referred to as the "**Right of First Refusal**." If Tenant elects to lease the First Refusal Space described in the Pending Deal Notice by delivering the Space Acceptance Notice within

the required 5 day period, Tenant shall be deemed to agree to lease the First Refusal Space on the same general terms and conditions as this Lease except that the terms of this Lease shall be modified to reflect the terms of the Pending Deal Notice for the rental of the First Refusal Space. Tenant acknowledges that the term of the Lease with respect to the First Refusal Space and the Term of the Lease with respect to the original Premises may not be co-terminous. Notwithstanding anything to the contrary contained herein, in no event shall the Work Letter apply to the First Refusal Space. If Tenant fails to deliver a Space Acceptance Notice to Landlord within the required 5 day period, Landlord shall have the right to lease the First Refusal Space to the third party subject to the Pending Deal (or an affiliate of such third party) ("**Pending Deal Party**") on substantially the same business terms and conditions set forth in the Pending Deal Notice. Notwithstanding anything to the contrary contained in this Section 39(a), Tenant shall have no right to exercise the Right of First Refusal and the provisions of this Section 39(a) shall no longer apply after the date that is 9 months prior to the expiration date of the Base Term if Tenant has not exercised its Extension Right pursuant to Section 40. Notwithstanding anything to the contrary contained in this Lease, if Tenant exercises its Right of First Refusal pursuant to this Section 39(a), Tenant shall be deemed to have waived its Termination Right (as defined in Section 42 below), and Section 42 shall be null and void and of no further force or effect.

(b) **Amended Lease**. If: (i) Tenant fails to timely deliver a Space Acceptance Notice, or (ii) after the expiration of a period of 10 days after Landlord's delivery to Tenant of a lease amendment for Tenant's lease of the First Refusal Space, no lease amendment for the First Refusal Space acceptable to both parties each in their sole and absolute discretion, has been executed, Tenant shall, notwithstanding anything to the contrary contained herein, be deemed to have forever waived its right to lease such First Refusal Space.

(c) **Exceptions**. Notwithstanding the above, the Right of First Refusal shall, at Landlord's option, not be in effect and may not be exercised by Tenant:

(i) during any period of time that Tenant is in Default under any provision of the Lease; or

(ii) if Tenant has been in Default under any provision of the Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period prior to the date on which Tenant seeks to exercise the Right of First Refusal.

(d) **Termination**. The Right of First Refusal shall, at Landlord's option, terminate and be of no further force or effect even after Tenant's due and timely exercise of the Right of First Refusal if, after such exercise, but prior to the commencement date of the lease of such First Refusal Space, (i) Tenant fails to timely cure any default by Tenant under the Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of the Right of First Refusal to the date of the commencement of the lease of the First Refusal Space, whether or not such Defaults are cured.

(e) **Rights Personal**. The Right of First Refusal is personal to Tenant and is not assignable without Landlord's consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in the Lease, except that it may be assigned in connection with any Permitted Assignment of this Lease.

(f) **No Extensions**. The period of time within which the Right of First Refusal may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Right of First Refusal.

40. **Right to Extend Term**. Tenant shall have the right to extend the Term of the Lease upon the following terms and conditions:

(a) **Extension Rights**. Tenant shall have 1 right (the "**Extension Right**") to extend the term of this Lease for 5 years (the "**Extension Term**") on the same terms and conditions as this Lease (other

than with respect to Base Rent and the Work Letter) by giving Landlord written notice of its election to exercise each Extension Right at least 12 months and not more than 14 months prior to the expiration of the Base Term of the Lease.

Upon the commencement of the Extension Term, Base Rent shall be payable at the Market Rate (as defined below). Base Rent shall thereafter be adjusted on each annual anniversary of the commencement of such Extension Term by a percentage as determined by Landlord and agreed to by Tenant at the time the Market Rate is determined. As used herein, "**Market Rate**" shall mean the rate that comparable landlords of comparable buildings have accepted in current transactions from non-equity (i.e., not being offered equity in the buildings) and nonaffiliated tenants of similar financial strength for space of comparable size, quality (including all Tenant Improvements, Alterations and other improvements) and floor height in comparable laboratory/office buildings in the Torrey Pines area of San Diego for a comparable term, with the determination of the Market Rate to take into account all relevant factors, including tenant inducements, available amenities (including, without limitation, the Amenities (as defined in Section 42 below)), age of the Building, age of mechanical systems serving the Premises, parking costs, leasing commissions, allowances or concessions, if any.

If, on or before the date which is 270 days prior to the expiration of the Base Term of this Lease, Tenant has not agreed with Landlord's determination of the Market Rate and the rent escalations during the Extension Term after negotiating in good faith, Tenant shall be deemed to have elected arbitration as described in Section 40(b). Tenant acknowledges and agrees that, if Tenant has elected to exercise the Extension Right by delivering notice to Landlord as required in this Section 40(a), Tenant shall have no right thereafter to rescind or elect not to extend the term of the Lease for the Extension Term.

(b) **Arbitration**.

(i) Within 10 days of Tenant's notice to Landlord of its election (or deemed election) to arbitrate Market Rate and escalations, each party shall deliver to the other a proposal containing the Market Rate and escalations that the submitting party believes to be correct ("**Extension Proposal**"). If either party fails to timely submit an Extension Proposal, the other party's submitted proposal shall determine the Base Rent and escalations for the Extension Term. If both parties submit Extension Proposals, then Landlord and Tenant shall meet within 7 days after delivery of the last Extension Proposal and make a good faith attempt to mutually appoint a single Arbitrator (and defined below) to determine the Market Rate and escalations. If Landlord and Tenant are unable to agree upon a single Arbitrator, then each shall, by written notice delivered to the other within 10 days after the meeting, select an Arbitrator. If either party fails to timely give notice of its selection for an Arbitrator, the other party's submitted proposal shall determine the Base Rent for the Extension Term. The 2 Arbitrators so appointed shall, within 5 business days after their appointment, appoint a third Arbitrator. If the 2 Arbitrators so selected cannot agree on the selection of the third Arbitrator within the time above specified, then either party, on behalf of both parties, may request such appointment of such third Arbitrator by application to any state court of general jurisdiction in the jurisdiction in which the Premises are located, upon 10 business days prior written notice to the other party of such intent.

(ii) The decision of the Arbitrator(s) shall be made within 30 days after the appointment of a single Arbitrator or the third Arbitrator, as applicable. The decision of the single Arbitrator shall be final and binding upon the parties. The average of the two closest Arbitrators in a three Arbitrator panel shall be final and binding upon the parties. Each party shall pay the fees and expenses of the Arbitrator appointed by or on behalf of such party and the fees and expenses of the third Arbitrator shall be borne equally by both parties. If the Market Rate and escalations are not determined by the first day of the Extension Term, then Tenant shall pay Landlord Base Rent in an amount equal to the Base Rent in effect immediately prior to the Extension Term and increased by the Rent Adjustment Percentage until such determination is made. After the determination of the Market Rate and escalations, the parties shall make any necessary adjustments to such payments made by Tenant. Landlord and Tenant shall then execute an amendment recognizing the Market Rate and escalations for the Extension Term.

(iii) An "**Arbitrator**" shall be any person appointed by or on behalf of either party or appointed pursuant to the provisions hereof and: (i) shall be (A) a member of the American Institute of Real Estate Appraisers with not less than 10 years of experience in the appraisal of improved office and high tech industrial real estate in the greater San Diego metropolitan area, or (B) a licensed commercial real estate broker with not less than 15 years experience representing landlords and/or tenants in the leasing of high tech or life sciences space in the greater San Diego metropolitan area, (ii) devoting substantially all of their time to professional appraisal or brokerage work, as applicable, at the time of appointment and (iii) be in all respects impartial and disinterested.

(c) **Rights Personal**. The Extension Right is personal to Tenant and is not assignable without Landlord's consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in the Lease, except that it may be assigned in connection with any Permitted Assignment of this Lease.

(d) **Exceptions**. Notwithstanding anything set forth above to the contrary, the Extension Right shall, at Landlord's option, not be in effect and Tenant may not exercise the Extension Right:

(i) during any period of time that Tenant is in Default under any provision of this Lease; or

(ii) if Tenant has been in Default under any provision of this Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period immediately prior to the date that Tenant intends to exercise the Extension Right, whether or not the Defaults are cured.

(e) **No Extensions**. The period of time within which the Extension Right may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Extension Right.

(f) **Termination**. The Extension Right shall, at Landlord's option, terminate and be of no further force or effect even after Tenant's due and timely exercise of the Extension Right, if, after such exercise, but prior to the commencement date of the Extension Term, (i) Tenant fails to timely cure any default by Tenant under this Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of the Extension Right to the date of the commencement of the Extension Term, whether or not such Defaults are cured.

41. **The Alexandria Amenities**.

(a) **Generally**. ARE-SD Region No. 17, LLC, a Delaware limited liability company ("**The Alexandria Landlord**") has constructed certain amenities at the property owned by The Alexandria Landlord located at 10996 Torreyana Road, San Diego, California ("**The Alexandria**"), which, as of the date of this Lease, include, without limitation, shared conference facilities ("**Shared Conference Facilities**"), a fitness center and restaurant (collectively, the "**Amenities**") for non-exclusive use by (a) Tenant, (b) other tenants of the Project, (c) Landlord, (d) the tenants of The Alexandria Landlord, (e) The Alexandria Landlord, (e) other affiliates of Landlord, The Alexandria Landlord and Alexandria Real Estate Equities, Inc. ("**ARE**"), (f) the tenants of such other affiliates of Landlord, The Alexandria Landlord and ARE, and (g) any other parties permitted by The Alexandria Landlord (collectively, "**Users**"). Landlord, The Alexandria Landlord, ARE, and all affiliates of Landlord, Alexandria Landlord and ARE may be referred to collectively herein as the "**ARE Parties**." Notwithstanding anything to the contrary contained herein, Tenant acknowledges and agrees that The Alexandria Landlord shall have the right, at the sole discretion of The Alexandria Landlord, to not make the Amenities available for use by some or all currently contemplated Users (including Tenant). The Alexandria Landlord shall have the sole right to determine all matters related to the Amenities including, without limitation, relating to the reconfiguration, relocation, modification or removal of any of the Amenities at The Alexandria and/or to revise, expand or discontinue any of the services (if any) provided in connection with the Amenities. Tenant acknowledges and agrees that Landlord has not made any representations or warranties regarding the availability of the Amenities and that Tenant is not entering into this Lease relying on the continued availability of the Amenities to Tenant.

(b) **License**. Commencing on the Commencement Date, and so long as The Alexandria and the Project continue to be owned by affiliates of ARE, Tenant shall have the non-exclusive right to the use of the available Amenities in common with other Users pursuant to the terms of this Section 41. Tenant shall be entitled to 2.5 passes to the fitness center located at The Alexandria per 1,000 rentable square feet of the Premises for use by employees of Tenant employed at the Premises. If any employee of Tenant to whom a fitness center pass has been issued ceases to be an employee of Tenant at the Premises or any employee to whom an access card (which does not include a fitness center pass) has been issued ceases to be an employee of Tenant at the Premises, Tenant shall immediately upon such employee's change in status collect such employee's pass or access card, as applicable, and deliver it to Landlord along with written notice of such employee's change in status.

Commencing on the Commencement Date, Tenant shall pay to Landlord a fixed fee during Term equal to $0.18 per rentable square foot of the Premises per month ("**Amenities Fee**"), which Amenities Fee shall by payable on the first day of each month during the Term whether or not Tenant elects to use any or all of the Amenities. The Amenities Fee shall be increased annually on each anniversary of the Commencement Date by 3%.

(c) **Shared Conference Facilities**. Use by Tenant of the Shared Conference Facilities and restaurant at The Alexandria shall be in common with other Users with scheduling procedures reasonably determined by The Alexandria Landlord or The Alexandria Landlord's then designated event operator ("**Event Operator**"). Tenant's use of the Shared Conference Facilities shall be subject to the payment by Tenant to The Alexandria Landlord of a fee equal to The Alexandria Landlord's quoted rates for the usage of the Shared Conference Facilities in effect at the time of Tenant's scheduling discounted by 30%. Tenant's use of the conference rooms in the Shared Conference Area shall be subject to availability and The Alexandria Landlord (or, if applicable, Event Operator) reserves the right to exercise its reasonable discretion in the event of conflicting scheduling requests among Users. Tenant hereby acknowledges that (i) Biocom/San Diego, a California non-profit corporation ("**Biocom**") has the right to reserve the Shared Conference Facilities and any reservable dining area(s) included within the Amenities for up to 50% of the time that such Shared Conference Facilities and reservable dining area(s) are available for use by Users each calendar month, and (ii) Illumina, Inc., a Delaware corporation, has the exclusive use of the main conference room within the Shared Conference Facilities for up to 4 days per calendar month.

Tenant shall be required to use the food service operator designated by The Alexandria Landlord at The Alexandria (the "**Designated Food and Beverage Operator**") for any food and/or beverage service or catered events held by Tenant in the Shared Conference Facilities. As of the date of this Lease, the Designated Food and Beverage Operator is The Farmer and the Seahorse. The Alexandria Landlord has the right, in its sole and absolute discretion, to change the Designated Food and Beverage Operator at any time. Tenant may not use any vendors other than the Designated Food and Beverage Operator nor may Tenant supply its own food and/or beverages in connection with any food and/or beverage service or catered events held by Tenant in the Shared Conference Facilities.

Tenant shall, at Tenant's sole cost and expense, (i) be responsible for the set-up of the Shared Conference Facilities in connection with Tenant's use (including, without limitation ensuring that Tenant has a sufficient number of chairs and tables and the appropriate equipment), and (ii) surrender the Shared Conference Facilities after each time that Tenant uses the Shared Conference Facilities free of Tenant's personal property, in substantially the same set up and same condition as received, and free of any debris and trash. If Tenant fails to restore and surrender the Shared Conference Facilities as required by sub-section (ii) of the immediately preceding sentence, such failure shall constitute a "**Shared Facilities Default**." Each time that Landlord reasonably determines that Tenant has committed a Shared Facilities Default, Tenant shall be required to pay Landlord a penalty within 5 days after notice from Landlord of such Shared Facilities Default. The penalty payable by Tenant in connection with the first Shared Facilities Default shall be $200. The penalty payable shall increase by $50 for each subsequent Shared Facilities Default (for the avoidance of doubt, the penalty shall be $250 for the second Shared Facilities Default, shall be $300 for the third Shared Facilities Default, etc.). In addition to the foregoing, Tenant shall be responsible for reimbursing The Alexandria Landlord or Landlord, as applicable, for all costs expended by The Alexandria Landlord or Landlord, as applicable, in repairing any damage to the Shared Conference

Facilities, the Amenities, or The Alexandria caused by Tenant or any Tenant Related Party. The provisions of this Section 41(c) shall survive the expiration or earlier termination of this Lease.

(d) **Restaurant**. Tenant's employees that have been issued an access card to The Alexandria shall have the right, along with other Users, to access and use the restaurant located at The Alexandria. The operator of the restaurant has agreed to provide Tenant's employees possessing an access card with a 20% discount on certain food items (not including alcohol) purchased at the restaurant (on an individual basis and not with respect to entire tables or checks), which discount shall not be transferrable.

(e) **Rules and Regulations**. Tenant shall be solely responsible for paying for any and all ancillary services (e.g., audio visual equipment) provided to Tenant, all food services operators and any other third party vendors providing services to Tenant at The Alexandria. Tenant shall use the Amenities (including, without limitation, the Shared Conference Facilities) in compliance with all applicable Legal Requirements and any rules and regulations imposed by The Alexandria Landlord or Landlord from time to time and in a manner that will not interfere with the rights of other Users. The use of Amenities other than the Shared Conference Facilities by employees of Tenant shall be in accordance with the terms and conditions of the standard licenses, indemnification and waiver agreement required by The Alexandria Landlord or the operator of the Amenities to be executed by all persons wishing to use such Amenities. Neither The Alexandria Landlord nor Landlord (nor, if applicable, any other affiliate of Landlord) shall have any liability or obligation for the breach of any rules or regulations by other Users with respect to the Amenities. Tenant shall not make any alterations, additions, or improvements of any kind to the Shared Conference Facilities, the Amenities or The Alexandria.

Tenant acknowledges and agrees that The Alexandria Landlord shall have the right at any time and from time to time to reconfigure, relocate, modify or remove any of the Amenities at The Alexandria and/or to revise, expand or discontinue any of the services (if any) provided in connection with the Amenities.

(f) **Waiver of Liability and Indemnification**. Tenant warrants that it will use reasonable care to prevent damage to property and injury to persons while on The Alexandria. Tenant waives any claims it or any Tenant Parties may have against any ARE Parties relating to, arising out of or in connection with the Amenities and any entry by Tenant and/or any Tenant Parties onto The Alexandria, and Tenant releases and exculpates all ARE Parties from any liability relating to, arising out of or in connection with the Amenities and any entry by Tenant and/or any Tenant Parties onto The Alexandria. Tenant hereby agrees to indemnify, defend, and hold harmless the ARE Parties from any claim of damage to property or injury to person relating to, arising out of or in connection with (i) the use of the Amenities by Tenant or any Tenant Parties, and (ii) any entry by Tenant and/or any Tenant Parties onto The Alexandria, except to the extent caused by the gross negligence or willful misconduct of Landlord. The provisions of this Section 41(f) shall survive the expiration or earlier termination of this Lease.

(g) **Insurance**. As of the Amenities Commencement Date, Tenant shall cause The Alexandria Landlord to be named as an additional insured under the commercial general liability policy of insurance that Tenant is required to maintain pursuant to Section 17 of this Lease.

42. **Early Termination Right**. Tenant shall have the right, subject to the provisions of this Section 42, to terminate this Lease ("**Termination Right**") with respect to the entire Premises only on the last day of the 36th month after the Rent Commencement Date ("**Early Termination Date**"), so long as Tenant delivers to Landlord (a) a written notice ("**Termination Notice**"), of its election to exercise its Termination Right no less than 9 months in advance of the Early Termination Date, and (b) concurrent with Tenant's delivery of the Termination Notice to Landlord, an early termination payment equal to (i) $350,000, plus (ii) the unamortized amount of the Allowance with interest as provided in Section 4(b) (collectively, the "**Early Termination Payment**"). If Tenant timely and properly exercises the Termination Right and delivers the Early Termination Payment, Tenant shall vacate the Premises and deliver possession thereof to Landlord in the condition required by the terms of this Lease on or before the Early Termination Date and Tenant shall have no further obligations under this Lease after the Early Termination Date except for those accruing prior to the Early Termination Date and those which, pursuant to the terms of this Lease, survive

the expiration or early termination of this Lease. If Tenant (i) exercises its Right of First Refusal pursuant to Section 39(a), or (ii) does not deliver to Landlord the Termination Notice and the Early Termination Payment within the time period provided in this paragraph, Tenant shall be deemed to have waived its Termination Right and the provisions of this Section 42 shall have no further force or effect.

43. **Intentionally Omitted**.

44. **Miscellaneous**.

(a) **Notices**. All notices or other communications between the parties shall be in writing and shall be deemed duly given upon delivery or refusal to accept delivery by the addressee thereof if delivered in person, or upon actual receipt if delivered by reputable overnight guaranty courier, addressed and sent to the parties at their addresses set forth above. Landlord and Tenant may from time to time by written notice to the other designate another address for receipt of future notices.

(b) **Joint and Several Liability**. If and when included within the term "**Tenant**," as used in this instrument, there is more than one person or entity, each shall be jointly and severally liable for the obligations of Tenant.

(c) **Financial Information**. Tenant shall furnish Landlord with true and complete copies of (i) Tenant's most recent audited annual financial statements within 90 days of the end of each of Tenant's fiscal years during the Term, (ii) Tenant's most recent unaudited quarterly financial statements within 45 days of the end of each of Tenant's first three fiscal quarters of each of Tenant's fiscal years during the Term, (iii) at Landlord's request from time to time, updated business plans, including cash flow projections and/or pro forma balance sheets and income statements, all of which shall be treated by Landlord as confidential information belonging to Tenant, (iv) corporate brochures and/or profiles prepared by Tenant for prospective investors, and (v) any other financial information or summaries that Tenant typically provides to its lenders or shareholders. So long as Tenant is a "public company" and its financial information is publicly available, then the foregoing delivery requirements of this Section 43(c) shall not apply.

(d) **Recordation**. Neither this Lease nor a memorandum of lease shall be filed by or on behalf of Tenant in any public record. Landlord may prepare and file, and upon request by Landlord Tenant will execute, a memorandum of lease.

(e) **Interpretation**. The normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Lease or any exhibits or amendments hereto. Words of any gender used in this Lease shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, unless the context otherwise requires. The captions inserted in this Lease are for convenience only and in no way define, limit or otherwise describe the scope or intent of this Lease, or any provision hereof, or in any way affect the interpretation of this Lease.

(f) **Not Binding Until Executed**. The submission by Landlord to Tenant of this Lease shall have no binding force or effect, shall not constitute an option for the leasing of the Premises, nor confer any right or impose any obligations upon either party until execution of this Lease by both parties.

(g) **Limitations on Interest**. It is expressly the intent of Landlord and Tenant at all times to comply with applicable law governing the maximum rate or amount of any interest payable on or in connection with this Lease. If applicable law is ever judicially interpreted so as to render usurious any interest called for under this Lease, or contracted for, charged, taken, reserved, or received with respect to this Lease, then it is Landlord's and Tenant's express intent that all excess amounts theretofore collected by Landlord be credited on the applicable obligation (or, if the obligation has been or would thereby be paid in full, refunded to Tenant), and the provisions of this Lease immediately shall be deemed reformed and the amounts thereafter collectible hereunder reduced, without the necessity of the execution of any new

document, so as to comply with the applicable law, but so as to permit the recovery of the fullest amount otherwise called for hereunder.

(h) **Choice of Law**. Construction and interpretation of this Lease shall be governed by the internal laws of the state in which the Premises are located, excluding any principles of conflicts of laws.

(i) **Time**. Time is of the essence as to the performance of Tenant's obligations under this Lease.

(j) **OFAC**. Tenant and all beneficial owners of Tenant are currently (a) in compliance with and shall at all times during the Term of this Lease remain in compliance with the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the term of this Lease be listed on, the Specially Designated Nationals and Blocked Persons List, Foreign Sanctions Evaders List, or the Sectoral Sanctions Identification List, which are all maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

(k) **Incorporation by Reference**. All exhibits and addenda attached hereto are hereby incorporated into this Lease and made a part hereof. If there is any conflict between such exhibits or addenda and the terms of this Lease, such exhibits or addenda shall control.

(l) **Entire Agreement**. This Lease, including the exhibits attached hereto, constitutes the entire agreement between Landlord and Tenant pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, letters of intent, negotiations and discussions, whether oral or written, of the parties, and there are no warranties, representations or other agreements, express or implied, made to either party by the other party in connection with the subject matter hereof except as specifically set forth herein.

(m) **No Accord and Satisfaction**. No payment by Tenant or receipt by Landlord of a lesser amount than the monthly installment of Base Rent or any Additional Rent will be other than on account of the earliest stipulated Base Rent and Additional Rent, nor will any endorsement or statement on any check or letter accompanying a check for payment of any Base Rent or Additional Rent be an accord and satisfaction. Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or to pursue any other remedy provided in this Lease.

(n) **Hazardous Activities**. Notwithstanding any other provision of this Lease, Landlord, for itself and its employees, agents and contractors, reserves the right to refuse to perform any repairs or services in any portion of the Premises which, pursuant to Tenant's routine safety guidelines, practices or custom or prudent industry practices, require any form of protective clothing or equipment other than safety glasses. In any such case, Tenant shall contract with parties who are acceptable to Landlord, in Landlord's reasonable discretion, for all such repairs and services, and Landlord shall, to the extent required, equitably adjust Tenant's Share of Operating Expenses in respect of such repairs or services to reflect that Landlord is not providing such repairs or services to Tenant.

(o) **Redevelopment of Project**. Tenant acknowledges that Landlord, in its sole discretion, may from time to time expand, renovate and/or reconfigure the Project as the same may exist from time to time and, in connection therewith or in addition thereto, as the case may be, from time to time without limitation: (a) change the shape, size, location, number and/or extent of any improvements, buildings, structures, lobbies, hallways, entrances, exits, parking and/or parking areas relative to any portion of the Project; (b) modify, eliminate and/or add any buildings, improvements, and parking structure(s) either above or below grade, to the Project, the Common Areas and/or any other portion of the Project and/or make any other changes thereto affecting the same; and (c) make any other changes, additions and/or deletions in any way affecting the Project and/or any portion thereof as Landlord may elect from time to time, including without limitation, additions to and/or deletions from the land comprising the Project, the Common Areas

and/or any other portion of the Project. Notwithstanding anything to the contrary contained in this Lease, Tenant shall have no right to seek damages (including abatement of Rent) or to cancel or terminate this Lease because of any proposed changes, expansion, renovation or reconfiguration of the Project nor shall Tenant have the right to restrict, inhibit or prohibit any such changes, expansion, renovation or reconfiguration; provided, however, Landlord shall not change the size, dimensions, location or Tenant's Permitted Use of the Premises. Landlord shall use commercially reasonable efforts to minimize interruption with Tenant's operations in the Premises in connection with any redevelopment of the Project pursuant to this Section 40(o).

(p) **Discontinued Use**. Subject to the terms of Section 18, if, at any time following the Rent Commencement Date, Tenant does not continuously operate its business in the Premises for a period of 180 consecutive days, Landlord may, but is not obligated to, elect to terminate this Lease upon 30 days' written notice to Tenant, whereupon this Lease shall terminate 30 days' after Landlord's delivery of such written notice ("**Termination Date**"), and Tenant shall vacate the Premises and deliver possession thereof to Landlord in the condition required by the terms of this Lease on or before the Termination Date and Tenant shall have no further obligations under this Lease except for those accruing prior to the Termination Date and those which, pursuant to the terms of the Lease, survive the expiration or early termination of the Lease.

(q) **EV Charging Stations**. Landlord shall not unreasonably withhold its consent to Tenant's written request to install 1 or more electric vehicle car charging stations ("**EV Stations**") in the parking area serving the Project; provided, however, that Tenant complies with all reasonable requirements, standards, rules and regulations which may be imposed by Landlord, at the time Landlord's consent is granted, in connection with Tenant's installation, maintenance, repair and operation of such EV Stations, which may include, without limitation, the charge to Tenant of a reasonable monthly rental amount for the parking spaces used by Tenant for such EV Stations, Landlord's designation of the location of Tenant's EV Stations, and Tenant's payment of all costs whether incurred by Landlord or Tenant in connection with the installation, maintenance, repair and operation of each Tenant's EV Station(s). Nothing contained in this paragraph is intended to increase the number of parking spaces which Tenant is otherwise entitled to use at the Project under Section 10 of this Lease nor impose any additional obligations on Landlord with respect to Tenant's parking rights at the Project.

(r) **California Accessibility Disclosure**. For purposes of Section 1938(a) of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Project has not undergone inspection by a Certified Access Specialist (CASp). In addition, the following notice is hereby provided pursuant to Section 1938(e) of the California Civil Code: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." In furtherance of and in connection with such notice: (i) Tenant, having read such notice and understanding Tenant's right to request and obtain a CASp inspection, hereby elects not to obtain such CASp inspection and forever waives its rights to obtain a CASp inspection with respect to the Premises, Building and/or Project to the extent permitted by Legal Requirements; and (ii) if the waiver set forth in clause (i) hereinabove is not enforceable pursuant to Legal Requirements, then Landlord and Tenant hereby agree as follows (which constitutes the mutual agreement of the parties as to the matters described in the last sentence of the foregoing notice): (A) Tenant shall have the one-time right to request for and obtain a CASp inspection, which request must be made, if at all, in a written notice delivered by Tenant to Landlord; (B) any CASp inspection timely requested by Tenant shall be conducted (1) at a time mutually agreed to by Landlord and Tenant, (2) in a professional manner by a CASp designated by Landlord and without any testing that would damage the Premises, Building or Project in any way, and (3) at Tenant's sole cost and expense, including, without limitation, Tenant's payment of the fee for such CASp inspection, the fee for any reports prepared by the CASp in connection with such CASp inspection

(collectively, the "**CASp Reports**") and all other costs and expenses in connection therewith; (C) the CASp Reports shall be delivered by the CASp simultaneously to Landlord and Tenant; (D) Tenant, at its sole cost and expense, shall be responsible for making any improvements, alterations, modifications and/or repairs to or within the Premises to correct violations of construction-related accessibility standards including, without limitation, any violations disclosed by such CASp inspection; and (E) if such CASp inspection identifies any improvements, alterations, modifications and/or repairs necessary to correct violations of construction-related accessibility standards relating to those items of the Building and Project located outside the Premises that are Landlord's obligation to repair as set forth in this Lease, then Landlord shall perform such improvements, alterations, modifications and/or repairs as and to the extent required by Legal Requirements to correct such violations, and Tenant shall reimburse Landlord for the cost of such improvements, alterations, modifications and/or repairs within 10 business days after Tenant's receipt of an invoice therefor from Landlord.

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the day and year first above written.

TENANT:

PIPELINE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Clare Ozawa
Its: CEO

By: /s/ Brian Stearns
Its: President

LANDLORD:

ARE-SD REGION NO. 44, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership,
managing member

By: ARE-QRS CORP.,
a Maryland corporation,
general partner

By: /s/ Gary Dean
Its: Senior Vice President, RE Legal Affiairs

EXHIBIT B TO LEASE

DESCRIPTION OF PROJECT

The land is situated in the City of San Diego, County of San Diego, State of California, and is described as follows:

TRACT I:

PARCEL A:

PARCEL 1 OF PARCEL MAP NO. 19142 IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY JANUARY 24, 2003.

PARCEL B:

EASEMENT SET FORTH IN EASEMENT AGREEMENT (ACCESS) FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY ON DECEMBER 17, 2012, AS FILE NO. 2012- 0790636 OF OFFICIAL RECORDS.

PARCEL C:

EASEMENT SET FORTH IN EASEMENT AND ENCROACHMENT AGREEMENT (ACCESS AND UTILITY) FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY ON DECEMBER 17, 2012, AS FILE NO. 2012-0790637 OF OFFICIAL RECORDS.

PARCEL D:

EASEMENTS IN ARTICLE 8 OF DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR TORREY PINES SCIENCE CENTER [UNIT 2], RECORDED JUNE 27, 1994 AS DOCUMENT NO. 1994-405385.

TRACT II:

PARCEL A:

PARCEL 1 OF PARCEL MAP NO. 19102, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, NOVEMBER 15, 2002 AS FILE NO. 2002-1027004.

PARCEL B:

AN EASEMENT FOR ACCESS, INGRESS AND EGRESS, AND UNDERGROUND UTILITIES, OVER, UNDER, ALONG AND ACROSS AND THROUGH THAT PORTION OF PARCEL 3 OF PARCEL MAP NO. 17448, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, AS GRANTED AND DESCRIBED IN THAT CERTAIN “GRANT OF EASEMENT” RECORDED DECEMBER 15, 1994 AS INSTRUMENT NO. 1994-0714126 OF OFFICIAL RECORDS, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTHEAST CORNER OF SAID PARCEL 3; THENCE ALONG THE BOUNDARY OF SAID PARCEL 3 SOUTH 09° 57’ 23” EAST 100.00.FEET; THENCE NORTH 52° 20’ 03” WEST 43.04 FEET; THENCE CONTINUING ALONG SAID BOUNDARY AND A PROLONGATION THEREOF NORTH 85° 10’ 39” WEST 226.16 FEET; THENCE NORTH 04° 49’ 21” EAST 50.00 FEET TO THE NORTH LINE OF SAID PARCEL 3; THENCE ALONG SAID NORTH LINE SOUTH 85° 10’ 39” EAST 212.97 FEET TO

AN ANGLE POINT THEREIN; THENCE CONTINUING ALONG SAID NORTH LINE NORTH 50° 24’ 56” EAST 33.37 FEET TO THE POINT OF BEGINNING.

PARCEL C:

EASEMENTS IN ARTICLE 8 OF DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR TORREY PINES SCIENCE CENTER [UNIT 2], RECORDED JUNE 27, 1994 AS DOCUMENT NO. 1994-405385.

TRACT III:

PARCEL A:

PARCEL 2 OF PARCEL MAP NO. 19142 IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY JANUARY 24, 2003.

PARCEL B:

EASEMENT SET FORTH IN EASEMENT AGREEMENT (STORM DRAINAGE), RECORDED AUGUST 16, 2012, AS INSTRUMENT NO. 2012-0488328 OF OFFICIAL RECORDS.

PARCEL C:

EASEMENT SET FORTH IN EASEMENT AND ENCROACHMENT AGREEMENT, RECORDED AUGUST 16, 2012, AS INSTRUMENT NO. 2012-0488330 OF OFFICIAL RECORDS.

PARCEL D:

EASEMENT SET FORTH IN EASEMENT AND ENCROACHMENT AGREEMENT (ACCESS AND UTILITY), RECORDED DECEMBER 17, 2012, AS INSTRUMENT NO. 2012-0790637 OF OFFICIAL RECORDS.

PARCEL E:

EASEMENTS IN ARTICLE 8 OF DECLARATION OF COVENANTS, CONDITIONS AND RESTRICTIONS FOR TORREY PINES SCIENCE CENTER [UNIT 2], RECORDED JUNE 27, 1994 AS DOCUMENT NO. 1994-0405385.

APN: 340-180-35-00 and 340-180-34-00 and 340-180-36-00

EXHIBIT C TO LEASE

WORK LETTER

THIS WORK LETTER dated _____, _____ (this "**Work Letter**") is made and entered into by and between **ARE-SD REGION NO. 44, LLC**, a Delaware limited liability company ("**Landlord**"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease Agreement dated _____, _____ (the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

1. **General Requirements**.

(a) **Tenant's Authorized Representative**. Tenant designates Brian Stearns and Dan Lorrain (either such individual acting alone, "**Tenant's Representative**") as the only persons authorized to act for Tenant pursuant to this Work Letter. Landlord shall not be obligated to respond to or act upon any request, approval, inquiry or other communication ("**Communication**") from or on behalf of Tenant in connection with this Work Letter unless such Communication is in writing from Tenant's Representative. Tenant may change either Tenant's Representative at any time upon not less than 5 business days advance written notice to Landlord. Neither Tenant nor Tenant's Representative shall be authorized to direct Landlord's contractors in the performance of Landlord's Work (as hereinafter defined).

(b) **Landlord's Authorized Representative**. Landlord designates Michael Harrison and John Cavanagh (either such individual acting alone, "**Landlord's Representative**") as the only persons authorized to act for Landlord pursuant to this Work Letter. Tenant shall not be obligated to respond to or act upon any request, approval, inquiry or other Communication from or on behalf of Landlord in connection with this Work Letter unless such Communication is in writing from Landlord's Representative. Landlord may change either Landlord's Representative at any time upon not less than 5 business days advance written notice to Tenant. Landlord's Representative shall be the sole persons authorized to direct Landlord's contractors in the performance of Landlord's Work.

(c) **Architects, Consultants and Contractors**. Landlord and Tenant hereby acknowledge and agree that: (i) the general contractor and any subcontractors for the Tenant Improvements shall be selected by Landlord, subject to Tenant's approval, which approval shall not be unreasonably withheld, conditioned or delayed, and (ii) DGA shall be the architect (the "**TI Architect**") for the Tenant Improvements.

2. **Tenant Improvements**.

(a) **Tenant Improvements Defined**. As used herein, "**Tenant Improvements**" shall mean all improvements to the Project of a fixed and permanent nature as shown on the TI Construction Drawings, as defined in Section 2(c) below which shall include, without limitation, the installation of a chain link fence in a location of the parking area serving the Project reasonably acceptable to Landlord and Tenant to create a storage area for Tenant's use. Other than Landlord's Work (as defined in Section 3(a) below, Landlord shall not have any obligation whatsoever with respect to the finishing of the Premises for Tenant's use and occupancy.

(b) **Tenant's Space Plans**. Landlord and Tenant acknowledge and agree that the plan prepared by the TI Architect attached hereto as **Annex 1** (the "**Space Plans**") and the scope of work attached hereto as **Annex 2** (the "**Scope of Work**") have been approved by both Landlord and Tenant. Landlord and Tenant further acknowledge and agree that any changes to the Space Plans or the Scope of Work constitute a Change Request the cost of which changes shall be paid for by Tenant. Tenant shall be solely responsible for all costs incurred by Landlord to alter the Building (or Landlord's plans for the Building) as a result of Tenant's requested changes.

(c) **Working Drawings**. Within a reasonable period following the approval of the Space Plans, Landlord shall cause the TI Architect to prepare and deliver to Tenant for review and comment construction plans, specifications and drawings for the Tenant Improvements ("**TI Construction Drawings**"), which TI Construction Drawings shall be prepared substantially in accordance with the Space Plans. Tenant shall be solely responsible for ensuring that the TI Construction Drawings reflect Tenant's requirements for the Tenant Improvements. Tenant shall deliver its written comments on the TI Construction Drawings to Landlord not later than 10 business days after Tenant's receipt of the same; provided, however, that Tenant may not disapprove any matter that is consistent with the Space Plans without submitting a Change Request. Landlord and the TI Architect shall consider all such comments in good faith and shall, within 10 business days after receipt, notify Tenant how Landlord proposes to respond to such comments, but Tenant's review rights pursuant to the foregoing sentence shall not delay the design or construction schedule for the Tenant Improvements. Any disputes in connection with such comments shall be resolved in accordance with Section 2(d) hereof. Provided that the design reflected in the TI Construction Drawings is consistent with the Space Plans, Tenant shall approve the TI Construction Drawings submitted by Landlord, unless Tenant submits a Change Request. Once approved by Tenant, subject to the provisions of Section 4 below, Landlord shall not materially modify the TI Construction Drawings except as may be reasonably required in connection with the issuance of the TI Permit (as defined in Section 3(b) below).

(d) **Approval and Completion**. It is hereby acknowledged by Landlord and Tenant that the TI Construction Drawings must be completed and approved not later than January 3, 2018, in order for the Landlord's Work to be Substantially Complete by the Target Commencement Date (as defined in the Lease). Upon any dispute regarding the design of the Tenant Improvements, which is not settled within 10 business days after notice of such dispute is delivered by one party to the other, Tenant may make the final decision regarding the design of the Tenant Improvements, provided (i) Tenant acts reasonably and such final decision is either consistent with or a compromise between Landlord's and Tenant's positions with respect to such dispute, (ii) that all costs and expenses resulting from any such decision by Tenant shall be payable by Tenant, and (iii) Tenant's decision will not affect the base Building, structural components of the Building or any Building Systems. Any changes to the TI Construction Drawings following Landlord's and Tenant's approval of same requested by Tenant shall be processed as provided in Section 4 hereof.

3. **Performance of Landlord's Work**.

(a) **Definition of Landlord's Work**. As used herein, "**Landlord's Work**" shall mean the work of constructing the Tenant Improvements.

(b) **Commencement and Permitting**. Landlord shall commence construction of the Tenant Improvements upon obtaining a building permit (the "**TI Permit**") authorizing the construction of the Tenant Improvements consistent with the TI Construction Drawings approved by Tenant. The cost of obtaining the TI Permit shall be payable by Landlord. Tenant shall assist Landlord in obtaining the TI Permit. If any Governmental Authority having jurisdiction over the construction of Landlord's Work or any portion thereof shall impose terms or conditions upon the construction thereof that: (i) are inconsistent with Landlord's obligations hereunder, (ii) increase the cost of constructing Landlord's Work, or (iii) will materially delay the construction of Landlord's Work, Landlord and Tenant shall reasonably and in good faith seek means by which to mitigate or eliminate any such adverse terms and conditions.

(c) **Completion of Landlord's Work**. Landlord shall substantially complete or cause to be substantially completed Landlord's Work in a good and workmanlike manner, in accordance with the TI Permit subject, in each case, to Minor Variations and normal "punch list" items of a non-material nature that do not interfere with the use of the Premises ("**Substantial Completion**" or "**Substantially Complete**"). Upon Substantial Completion of Landlord's Work, Landlord shall require the TI Architect and the general contractor to execute and deliver, for the benefit of Tenant and Landlord, a Certificate of Substantial Completion in the form of the American Institute of Architects ("**AIA**") document G704. For purposes of this Work Letter, "**Minor Variations**" shall mean any modifications reasonably required: (i) to comply with all applicable Legal Requirements and/or to obtain or to comply with any required permit (including the TI Permit); (ii) to comply with any request by Tenant for modifications to Landlord's Work; (iii) to comport with

good design, engineering, and construction practices that are not material; or (iv) to make reasonable adjustments for field deviations or conditions encountered during the construction of Landlord's Work.

(d) **Selection of Materials**. Where more than one type of material or structure is indicated on the TI Construction Drawings approved by Landlord and Tenant, the option will be selected at Landlord's sole and absolute subjective discretion. As to all building materials and equipment that Landlord is obligated to supply under this Work Letter, Landlord shall select the manufacturer thereof in its reasonable discretion.

(e) **Delivery of the Premises**. When Landlord's Work is Substantially Complete, subject to the remaining terms and provisions of this Section 3(e), Tenant shall accept the Premises. Tenant's taking possession and acceptance of the Premises shall not constitute a waiver of: (i) any warranty with respect to workmanship (including installation of equipment) or material (exclusive of equipment provided directly by manufacturers), (ii) any non-compliance of Landlord's Work with applicable Legal Requirements, or (iii) any claim that Landlord's Work was not completed substantially in accordance with the TI Construction Drawings (subject to Minor Variations and such other changes as are permitted hereunder) (collectively, a "**Construction Defect**"). Tenant shall have one year after Substantial Completion within which to notify Landlord of any such Construction Defect discovered by Tenant, and Landlord shall use reasonable efforts to remedy or cause the responsible contractor to remedy any such Construction Defect within 30 days thereafter. Notwithstanding the foregoing, Landlord shall not be in default under the Lease if the applicable contractor, despite Landlord's reasonable efforts, fails to remedy such Construction Defect within such 30-day period. If the contractor fails to remedy such Construction Defect within a reasonable time, Landlord shall use reasonable efforts to remedy the Construction Defect within a reasonable period.

Tenant shall be entitled to receive the benefit of all construction warranties and manufacturer's equipment warranties relating to equipment installed in the Premises. If requested by Tenant, Landlord shall attempt to obtain extended warranties from manufacturers and suppliers of such equipment, but the cost of any such extended warranties shall be borne solely by Tenant. Landlord shall promptly undertake and complete, or cause to be completed, all punch list items.

(f) **Commencement Date Delay**. Except as otherwise provided in the Lease, Delivery of the Premises shall occur when Landlord's Work has been Substantially Completed, except to the extent that completion of Landlord's Work shall have been actually delayed by any one or more of the following causes ("**Tenant Delay**"):

(i) Tenant's Representative was not available to give or receive any Communication within 1 business day following Landlord's written request, or to take any other action required to be taken by Tenant hereunder;

(ii) Tenant's request for Change Requests (as defined in Section 4(a) below) whether or not any such Change Requests are actually performed;

(iii) Construction of any Change Requests;

(iv) Tenant's request for materials, finishes or installations requiring unusually long lead times;

(v) Tenant's delay in reviewing, revising or approving plans and specifications beyond the periods set forth herein;

(vi) Tenant's delay in providing information critical to the normal progression of the Project. Tenant shall provide such information as soon as reasonably possible, but in no event longer than one week after receipt of any request for such information from Landlord;

(vii) Tenant's delay in making payments to Landlord for Excess TI Costs (as defined in Section 5(d) below); or

(viii) Any other act or omission by Tenant or any Tenant Party (as defined in the Lease), or persons employed by any of such persons that continues for 1 business day following Landlord's written notice to Tenant thereof.

If Delivery is delayed for any of the foregoing reasons, then Landlord shall cause the TI Architect to certify the date on which the Tenant Improvements would have been Substantially Completed but for such Tenant Delay and such certified date shall be the date of Delivery.

4. **Changes**. Any changes requested by Tenant to the Tenant Improvements after the delivery and approval by Landlord of the Space Plan and the Scope of Work shall be requested and instituted in accordance with the provisions of this Section 4 and shall be subject to the written approval of Landlord and the TI Architect, such approval not to be unreasonably withheld, conditioned or delayed.

(a) **Tenant's Request For Changes**. If Tenant shall request changes to the Tenant Improvements ("**Changes**"), Tenant shall request such Changes by notifying Landlord in writing in substantially the same form as the AIA standard change order form (a "**Change Request**"), which Change Request shall detail the nature and extent of any such Change. Such Change Request must be signed by Tenant's Representative. Landlord shall, before proceeding with any Change, use commercially reasonable efforts to respond to Tenant as soon as is reasonably possible with an estimate of: (i) the time it will take, and (ii) the architectural and engineering fees and costs that will be incurred, to analyze such Change Request (which costs shall be paid for by Tenant to the extent actually incurred, whether or not such change is implemented). Landlord shall thereafter submit to Tenant in writing, within 5 business days of receipt of the Change Request (or such longer period of time as is reasonably required depending on the extent of the Change Request), an analysis of the additional cost or savings involved, including, without limitation, architectural and engineering costs and the period of time, if any, that the Change will extend the date on which Landlord's Work will be Substantially Complete. Any such delay in the completion of Landlord's Work caused by a Change, including any suspension of Landlord's Work while any such Change is being evaluated and/or designed, shall be Tenant Delay.

(b) **Implementation of Changes**. If Tenant: (i) approves in writing the cost or savings and the estimated extension in the time for completion of Landlord's Work, if any, and (ii) deposits with Landlord any Excess TI Costs required in connection with such Change, Landlord shall cause the approved Change to be instituted. Notwithstanding any approval or disapproval by Tenant of any estimate of the delay caused by such proposed Change, the TI Architect's determination of the amount of Tenant Delay in connection with such Change shall be final and binding on Landlord and Tenant.

5. **Costs**.

(a) **TI Costs**. Landlord shall be responsible for the payment of design, permits and construction costs in connection with the construction of the Tenant Improvements, including, without limitation, the cost of preparing the TI Construction Drawings and the Space Plans and Landlord's out-of-pocket expenses (collectively, "**TI Costs**"). Notwithstanding anything to the contrary contained herein, except for the furniture reflected in the Space Plans, in no event shall Landlord be required to pay for any furniture, personal property or other non-Building system materials or equipment, including, but not limited to, Tenant's voice or data cabling, non-ducted biological safety cabinets and other scientific equipment not incorporated into the Tenant Improvements.

(b) **Excess TI Costs**. Notwithstanding anything to the contrary contained herein, Tenant acknowledges and agrees that Landlord shall have no responsibility for any costs arising from or related to Tenant's changes to the Space Plan or TI Construction Drawings, Tenant Delays, the cost of Changes and Change Requests (collectively, "**Excess TI Costs**"). Tenant shall deposit with Landlord, as a condition precedent to Landlord's obligation to complete the Tenant Improvements, 100% of the Excess TI Costs. If Tenant fails to deposit any Excess TI Costs with Landlord, Landlord shall have all of the rights and remedies

set forth in the Lease for nonpayment of Rent (including, but not limited to, the right to interest at the Default Rate and the right to assess a late charge). For purposes of any litigation instituted with regard to such amounts, those amounts will be deemed Rent under the Lease.

(c) **Allowance**. Landlord shall provide to Tenant an "**Allowance**" in the maximum amount of $25.00 per rentable square foot of the Premises, or $228,575 in the aggregate, which shall, to the extent used, result in Additional Rent as set forth in Section 4(b) of the Lease. The Allowance may be applied toward costs of items reasonably acceptable to Landlord ("**Acceptable Items**"). Landlord shall reimburse Tenant for the actual reasonable cost of Acceptable Items within 30 days after Tenant's delivery to Landlord of invoices and other evidence reasonably requested by Landlord reflecting the actual reasonable costs incurred by Tenant for such Acceptable Items. The Allowance shall only be available for use by Tenant for costs incurred by Tenant for Acceptable Items during the period commencing on the execution date of the Lease through the date that is 6 months after the Commencement Date (such period, the "**Allowance Reimbursement Period**"). Any portion of the Allowance with respect to which Landlord has not received an invoice (and/or other evidence reasonably requested by Landlord) prior to the expiration of the Allowance Reimbursement Period for costs incurred during the Allowance Reimbursement Period shall be forfeited and shall not be available for use by Tenant.

6. **Tenant Access**.

(a) **Tenant's Access Rights**. Landlord hereby agrees to permit Tenant access, at Tenant's sole risk and expense, to the Building (i) at least 14 days prior to Landlord's Substantial Completion of the Tenant Improvements to perform any work, including the set up of Tenant's furniture, fixtures and equipment in the Premises ("**Tenant's Work**") required by Tenant other than Landlord's Work, provided that such Tenant's Work is coordinated with the TI Architect and the general contractor, and complies with the Lease and all other reasonable restrictions and conditions Landlord may impose, and (ii) prior to the completion of Landlord's Work, to inspect and observe work in process; all such access shall be during normal business hours or at such other times as are reasonably designated by Landlord. Notwithstanding the foregoing, Tenant shall have no right to enter onto the Premises or the Project unless and until Tenant shall deliver to Landlord evidence reasonably satisfactory to Landlord demonstrating that any insurance reasonably required by Landlord in connection with such pre-commencement access (including, but not limited to, any insurance that Landlord may require pursuant to the Lease) is in full force and effect. Any entry by Tenant shall comply with all established safety practices of Landlord's contractor and Landlord until completion of Landlord's Work and acceptance thereof by Tenant.

(b) **No Interference**. Neither Tenant nor any Tenant Party (as defined in the Lease) shall interfere with the performance of Landlord's Work, nor with any inspections or issuance of final approvals by applicable Governmental Authorities, and upon any such interference, Landlord shall have the right to exclude Tenant and any Tenant Party from the Premises and the Project until Substantial Completion of Landlord's Work.

(c) **No Acceptance of Premises**. The fact that Tenant may, with Landlord's consent, enter into the Project prior to the date Landlord's Work is Substantially Complete for the purpose of performing Tenant's Work shall not be deemed an acceptance by Tenant of possession of the Premises, but in such event Tenant shall defend with counsel reasonably acceptable by Landlord, indemnify and hold Landlord harmless from and against any loss of or damage to Tenant's property, completed work, fixtures, equipment, materials or merchandise, and from liability for death of, or injury to, any person, caused by the act or omission of Tenant or any Tenant Party.

7. **Miscellaneous**.

(a) **Consents**. Whenever consent or approval of either party is required under this Work Letter, that party shall not unreasonably withhold, condition or delay such consent or approval, unless expressly set forth herein to the contrary.

(b) **Modification**. No modification, waiver or amendment of this Work Letter or of any of its conditions or provisions shall be binding upon Landlord or Tenant unless in writing signed by Landlord and Tenant.

(c) **No Default Funding**. In no event shall Landlord have any obligation to perform any Landlord's Work during any period that Tenant is in Default under the Lease.

EXHIBIT D TO LEASE

ACKNOWLEDGMENT OF COMMENCEMENT DATE

This **ACKNOWLEDGMENT OF COMMENCEMENT DATE** is made this _____ day of _____, ____, between **ARE-SD REGION NO. 44, LLC**, a Delaware limited liability company ("**Landlord**"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**"), and is attached to and made a part of the Lease dated _____, _____ (the "**Lease**"), by and between Landlord and Tenant. Any initially capitalized terms used but not defined herein shall have the meanings given them in the Lease.

Landlord and Tenant hereby acknowledge and agree, for all purposes of the Lease, that the Commencement Date of the Base Term of the Lease is _____, _____, the Rent Commencement Date is _____, _____, and the termination date of the Base Term of the Lease shall be midnight on _____, _____. In case of a conflict between the terms of the Lease and the terms of this Acknowledgment of Commencement Date, this Acknowledgment of Commencement Date shall control for all purposes.

IN WITNESS WHEREOF, Landlord and Tenant have executed this ACKNOWLEDGMENT OF COMMENCEMENT DATE to be effective on the date first above written.

TENANT:

PIPELINE THERAPEUTICS, INC.,
a Delaware corporation

By: _____
Its: _____

By: _____
Its: _____

LANDLORD:

ARE-SD REGION NO. 44, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership,
managing member

By: ARE-QRS CORP.,
a Maryland corporation,
general partner

By: _____
Its: _____

EXHIBIT E TO LEASE

Rules and Regulations

1. The sidewalk, entries, and driveways of the Project shall not be obstructed by Tenant, or any Tenant Party, or used by them for any purpose other than ingress and egress to and from the Premises.

2. Tenant shall not place any objects, including antennas, outdoor furniture, etc., in the parking areas, landscaped areas or other areas outside of its Premises, or on the roof of the Project.

3. Except for animals assisting the disabled, no animals shall be allowed in the offices, halls, or corridors in the Project.

4. Tenant shall not disturb the occupants of the Project or adjoining buildings by the use of any radio or musical instrument or by the making of loud or improper noises.

5. If Tenant desires telegraphic, telephonic or other electric connections in the Premises, Landlord or its agent will direct the electrician as to where and how the wires may be introduced; and, without such direction, no boring or cutting of wires will be permitted. Any such installation or connection shall be made at Tenant's expense.

6. Tenant shall not install or operate any steam or gas engine or boiler, or other mechanical apparatus in the Premises, except as specifically approved in the Lease. The use of oil, gas or inflammable liquids for heating, lighting or any other purpose is expressly prohibited. Explosives or other articles deemed extra hazardous shall not be brought into the Project.

7. Parking any type of recreational vehicles is specifically prohibited on or about the Project. Except for the overnight parking of operative vehicles, no vehicle of any type shall be stored in the parking areas at any time. In the event that a vehicle is disabled, it shall be removed within 48 hours. There shall be no "For Sale" or other advertising signs on or about any parked vehicle. All vehicles shall be parked in the designated parking areas in conformity with all signs and other markings. All parking will be open parking, and no reserved parking, numbering or lettering of individual spaces will be permitted except as specified by Landlord.

8. Tenant shall maintain the Premises free from rodents, insects and other pests.

9. Landlord reserves the right to exclude or expel from the Project any person who, in the judgment of Landlord, is intoxicated or under the influence of liquor or drugs or who shall in any manner do any act in violation of the Rules and Regulations of the Project.

10. Tenant shall not cause any unnecessary labor by reason of Tenant's carelessness or indifference in the preservation of good order and cleanliness. Landlord shall not be responsible to Tenant for any loss of property on the Premises, however occurring, or for any damage done to the effects of Tenant by the janitors or any other employee or person.

11. Tenant shall give Landlord prompt notice of any defects in the water, lawn sprinkler, sewage, gas pipes, electrical lights and fixtures, heating apparatus, or any other service equipment affecting the Premises.

12. Tenant shall not permit storage outside the Premises, including without limitation, outside storage of trucks and other vehicles, or dumping of waste or refuse or permit any harmful materials to be placed in any drainage system or sanitary system in or about the Premises.

13. All moveable trash receptacles provided by the trash disposal firm for the Premises must be kept in the trash enclosure areas, if any, provided for that purpose.

14. No auction, public or private, will be permitted on the Premises or the Project.

15. No awnings shall be placed over the windows in the Premises except with the prior written consent of Landlord.

16. The Premises shall not be used for lodging, sleeping or cooking or for any immoral or illegal purposes or for any purpose other than that specified in the Lease. No gaming devices shall be operated in the Premises.

17. Tenant shall ascertain from Landlord the maximum amount of electrical current which can safely be used in the Premises, taking into account the capacity of the electrical wiring in the Project and the Premises and the needs of other tenants, and shall not use more than such safe capacity. Landlord's consent to the installation of electric equipment shall not relieve Tenant from the obligation not to use more electricity than such safe capacity.

18. Tenant assumes full responsibility for protecting the Premises from theft, robbery and pilferage.

19. Tenant shall not install or operate on the Premises any machinery or mechanical devices of a nature not directly related to Tenant's ordinary use of the Premises and shall keep all such machinery free of vibration, noise and air waves which may be transmitted beyond the Premises.

EXHIBIT F TO LEASE

TENANT'S PERSONAL PROPERTY

None.

FIRST AMENDMENT TO LEASE

This First Amendment to Lease (this "**First Amendment**") is made as of February 16, 2018, by and between **ARE-SD REGION NO. 44, LLC**, a Delaware limited liability company ("**Landlord**"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant have entered into that certain Lease Agreement dated as of January 3, 2018 (the "**Lease**"), wherein Landlord leases to Tenant certain premises consisting of approximately 9,143 rentable square feet (the "**Premises**"), located at 10578 Science Center Drive, San Diego, California, as more particularly described therein.

B. Tenant has requested that Landlord install a bulk nitrogen tank (the "**Nitrogen Tank**") at the Building for use by Tenant (in common with other tenants of the Building having the right to use the Nitrogen Tank) in connection with its operations at the Premises.

C. Landlord and Tenant desire, subject to the terms and conditions set forth herein, to amend the Lease as provided in this First Amendment.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Installation of N2 Tank Systems**. Prior to the Commencement Date of the Lease, Landlord shall cause the Nitrogen Tank and related improvements ("**N2 Tank System**") to be installed in the location reflected on **Exhibit A** attached hereto. Tenant may commence using the N2 Tank System in common with other tenants having the right thereto as of the Commencement Date.

2. **Additional Rent**. Commencing on the Commencement Date and continuing thereafter on the first day of each month during the Base Term, Tenant shall pay to Landlord Additional Rent in the amount of $592.00 per month ("**N2 Tank System Rent**") in connection with Landlord's installation of the Nitrogen Tank System. If the Lease terminates prior to the expiration date of the Base Term, any N2 Tank System Rent that would have been due and payable over the balance of the Base Term shall be paid by Tenant to Landlord in a lump sum upon such early termination of this Lease.

3. **Generally**. Tenant acknowledges and agrees that as of the Commencement Date, the N2 Tank System shall be shared with Forge Therapeutics, Inc., and may, during the Term, be shared with additional tenants of the Building. Tenant's obligation to pay its share of Operating Expenses with respect to the N2 Tank System, shall be allocated among Tenant and other user tenants on a pro rata basis, with Tenant's share based on the ratio of the rentable square footage of the Premises to the sum of the rentable square footages of the Premises and the premises of all other user tenants. In addition, Tenant shall pay, as part of Operating Expenses, for its usage of nitrogen which shall be monitored by flow meters installed by Landlord.

   Landlord's sole obligation for providing the N2 Tank System to Tenant shall be to contract with a third party to maintain the N2 Tank System as per the manufacturer's standard maintenance guidelines. Landlord shall have no obligation to supervise, oversee or confirm that the third party maintaining the N2 Tank System is maintaining the N2 Tank System as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the N2 Tank System when the N2 Tank System is not operational, including any delays thereto due to the inability to obtain parts or replacement equipment, Landlord shall have no obligation to provide

Tenant with an alternative N2 Tank System. Tenant expressly acknowledges and agrees that Landlord does not guaranty that such N2 Tank System will be operational at all times or that the N2 Tank System will be available for use by Tenant when needed.

4. **OFAC**. Tenant and all beneficial owners of Tenant are currently (a) in compliance with and shall at all times during the Term of the Lease remain in compliance with the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the term of the Lease be listed on, the Specially Designated Nationals and Blocked Persons List, Foreign Sanctions Evaders List or the Sectoral Sanctions Identifications List, which are all maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

4. **California Accessibility Disclosure**. Tenant acknowledges and agrees that Section 44(r) of the Lease continues to apply.

5. **Miscellaneous**.

(a) This First Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This First Amendment may be amended only by an agreement in writing, signed by the parties hereto.

(b) This First Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective successors and assigns.

(c) This First Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this First Amendment attached thereto.

(d) Landlord and Tenant each represent and warrant that it has not dealt with any broker, agent or other person (collectively "**Broker**") in connection with this transaction, and that no Broker brought about this transaction. Landlord and Tenant each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.

(e) Except as amended and/or modified by this First Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this First Amendment. In the event of any conflict between the provisions of this First Amendment and the provisions of the Lease, the provisions of this First Amendment shall prevail. Whether or not specifically amended by this First Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this First Amendment.

IN WITNESS WHEREOF, the parties hereto have executed this First Amendment as of the day and year first above written.

TENANT:

PIPELINE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Brian Stearns
Its: President

LANDLORD:

ARE-SD REGION NO. 44, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership, managing member

By: ARE-QRS CORP.,
a Maryland corporation, general partner

By: /s/ Gary Dean
Its: Senior Vice President, RE Legal Affairs

SECOND AMENDMENT TO LEASE

THIS SECOND AMENDMENT TO LEASE (this "**Second Amendment**") is made as of April 2, 2018, by and between **ARE-SO REGION NO. 44, LLC,** a Delaware limited liability company **("Landlord"),** and **PIPELINE THERAPEUTICS, INC.,** a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant are parties to that certain Lease Agreement dated as of January 3, 2018, as amended by that certain First Amendment to Lease dated February 16, 2018 (as amended, the "**Lease**"). Pursuant to the Lease, Tenant leases certain premises at 10578 Science Center Drive, San Diego, California ("**Premises**"). The Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. Landlord and Tenant desire, subject to the terms and conditions set forth below, to update the suite number of the Premises and Tenant's notice address.

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Amendment to Definition of Building**. The defined term "Premises" on page 1 of the Lease shall be deleted in its entirety and replaced with the following:

"**Premises**: That portion of the Building commonly known as Suite 200 containing approximately 9,143 rentable square feet, as determined by Landlord, as shown on Exhibit A."

2. **Amendment to Tenant's Notice Address.** Tenant's notice address set forth on page 1 of the Lease shall be deleted in its entirety and replaced with the following:

"Tenant's Notice Address after the Commencement Date:
10578 Science Center Drive, Suite 200
San Diego, California 92121
Attention: Lease Administrator"

3. **Miscellaneous**.

a. This Second Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Second Amendment may be amended only by an agreement in writing, signed by the parties hereto.

b. This Second Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective agents, employees, representatives, officers, directors, divisions, subsidiaries, affiliates, assigns, heirs, successors in interest and shareholders.

c. This Second Amendment may be executed in any number of counterparts, each of which shall be deemed an original, but all of which when taken together shall constitute one and

the same instrument. The signature page of any counterpart may be detached therefrom without impairing the legal effect of the signature(s) thereon provided such signature page is attached to any other counterpart identical thereto except having additional signature pages executed by other parties to this Second Amendment attached thereto.

d. Except as amended and/or modified by this Second Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this Second Amendment. In the event of any conflict between the provisions of this Second Amendment and the provisions of the Lease, the provisions of this Second Amendment shall prevail. Whether or not specifically amended by this Second Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Second Amendment.

[Signature Page Immediately Follows]

IN WITNESS WHEREOF, the parties hereto have executed this Second Amendment as of the day and year first above written.

LANDLORD:

ARE-SD REGION NO. 44, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership,
managing member

By: ARE-QRS CORP.,
a Maryland corporation,
general partner

By: /s/ Gary Dean
Senior Vice President, RE Legal Affairs

TENANT:

PIPELINE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Brian Stearns
Name: Brian Stearns
Title: Chief Operating Officer

THIRD AMENDMENT TO LEASE

THIS THIRD AMENDMENT TO LEASE (this "**Third Amendment**") is made as of June 15, 2021, by and between **ARE-SD REGION NO. 44, LLC**, a Delaware limited liability company ("**Landlord**"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**").

RECITALS

A. Landlord and Tenant entered into that certain Lease Agreement dated as of January 3, 2018 (the "**Original Lease**"), as amended by that certain First Amendment to Lease dated as of February 16, 2018, and as further amended by that certain Second Amendment to Lease dated as of April 2, 2018 (as amended, the "**Lease**"). Pursuant to the Lease, Tenant leases Suite 200 consisting of approximately 9,143 rentable square feet (the "**Existing Premises**") in a building located at 10578 Science Center Drive, San Diego, California (the "**Building**"). The Existing Premises are more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. The Term of the Lease is scheduled to expire on June 30, 2023 (the "**Existing Expiration Date**").

C. Landlord has caused the Building and the Project to be re-measured and, pursuant to such re-measurement, determined that (i) the rentable square footage of the Building is approximately 148,167 rentable square feet, and (ii) the rentable square footage of the Project is approximately 298,589 rentable square feet.

D. Landlord and Tenant desire, subject to the terms and conditions set forth below, to amend the Lease to, among other things, (i) extend the term of the Lease through September 30, 2024 (the "**Third Amendment Expiration Date**"), and (ii) expand the size of the Existing Premises to include Suite 215 containing approximately 8,265 rentable square feet, as more particularly described on **Exhibit A-1** attached hereto (the "**Expansion Premises**").

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. **Term**. The Term of the Lease is hereby extended through the Third Amendment Expiration Date (the "**Extended Term**"). Tenant's occupancy of the Premises through the Third Amendment Expiration Date shall be on an "as-is" basis, and Landlord shall have no obligation to provide any tenant improvement allowance or make any alterations to the Premises.

2. **Expansion Premises**. In addition to the Existing Premises, commencing on the Expansion Premises Commencement Date (as defined in Section 3 below), Landlord shall lease to Tenant and Tenant shall lease from Landlord the Expansion Premises.

As of the Expansion Premises Commencement Date, the "Premises" shall include the Expansion Premises and the Existing Premises for all purposes, except to the extent expressly provided otherwise in this Third Amendment, and **Exhibit A** to the Original Lease shall be amended to include the Expansion Premises described on **Exhibit A-1** attached to this Third Amendment.

3. **Delivery of Expansion Premises**. Landlord shall use reasonable efforts to deliver the Expansion Premises to Tenant on or before the Target Expansion Premises Commencement Date. If Landlord fails to timely deliver the Expansion Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and the Lease with respect to the Expansion Premises shall not be void or voidable. Notwithstanding the foregoing, if Landlord does not

deliver the Expansion Premises to Tenant within 180 days following the Target Expansion Premises Commencement Date for any reason other than Force Majeure delays, Tenant shall have the right to terminate its leasehold obligations with respect to the Expansion Premises only, by written notice to Landlord (the "**Delay Notice**"). Landlord shall have 30 days after Landlord's receipt of the Delay Notice to deliver the Expansion Premises to Tenant, and in the event that Landlord is still unable to deliver the Expansion Premises to Tenant within such time, then upon the 31st day after Landlord's receipt of the Delay Notice, this Lease, with respect to the Expansion Premises only, shall be deemed terminated and of no further force or effect, and Landlord and Tenant shall thereafter be relieved of any further obligations to one another under this Lease with respect to the Expansion Premises. If Tenant does not deliver the Delay Notice within 5 business days of the lapse of such 180 day period, such right to terminate this Lease with respect to the Expansion Premises shall be waived and this Lease shall remain in full force and effect with respect to the Expansion Premises.

The "**Expansion Premises Commencement Date**" shall be the date Landlord delivers the Expansion Premises to Tenant. The "**Target Expansion Premises Commencement Date**" shall be October 1, 2021. Upon the request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Expansion Premises Commencement Date in the form of the "Acknowledgement of Expansion Premises Commencement Date" attached hereto as **Exhibit B**; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder.

Except as set forth in this Third Amendment: (i) Tenant shall accept the Expansion Premises in their "as-is" condition as of the Expansion Premises Commencement Date; (ii) Landlord shall have no obligation for any defects in the Expansion Premises; and (iii) Tenant's taking possession of the Expansion Premises shall be conclusive evidence that Tenant accepts the Expansion Premises and that the Expansion Premises were in good condition at the time possession was taken. Upon Tenant's written request and subject to Tenant agreeing to provide a non-reliance letter on Landlord's standard form, to the extent in Landlord's possession, Landlord shall provide copies of any written surrender plans and reports prepared by the prior occupants of the Expansion Premises.

Commencing on the Expansion Premises Commencement Date, during the Term, Tenant shall have the right to use the furniture, fixtures and equipment belonging to Landlord described on **Exhibit C** attached to this Third Amendment and located within the Expansion Premises on the Expansion Premises Commencement Date ("**Landlord's Furniture**"). Tenant shall have no right to remove any of Landlord's Furniture from the Premises, except for the temporary relocation and storage of Landlord's Furniture in connection with Tenant's construction of the Expansion Premises Alterations (defined below), which temporary relocation and storage shall be at Tenant's sole cost. Landlord's Furniture shall be returned to Landlord at the expiration or earlier termination of the Term in substantially the same condition as received by Tenant, except for ordinary wear and tear and casualty.

Tenant agrees and acknowledges that neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Expansion Premises, and/or the suitability of the Expansion Premises for the conduct of Tenant's business, and Tenant waives any implied warranty that the Expansion Premises are suitable for the Permitted Use.

4. **Expansion Premises Alterations**. Tenant shall be permitted to construct up to 3 new private offices in the Expansion Premises in the area shown on **Exhibit A-2** (the "**Expansion Premises Alterations**"), which Expansion Premises Alterations shall be constructed pursuant to a scope of work and plans prepared by Tenant and approved by Landlord, in Landlord's reasonable discretion. Tenant acknowledges that upon the expiration of the Term of the Lease, the

Expansion Premises Alterations shall become the property of Landlord and may not be removed by Tenant. Tenant shall be solely responsible for all of the costs of the Expansion Premises Alterations. The Expansion Premises Alterations shall be treated as Alterations and shall be undertaken pursuant to Section 12 of the Original Lease. DPR Construction shall be the general contractor for the Expansion Premises Alterations, and DGA Architects shall be the architect for the Expansion Premises Alterations. If either DPR Construction or DGA Architects is unavailable to work on the Expansion Premises Alterations, Tenant may replace such unavailable general contractor or architect, as applicable, with a general contractor or architect which has availability, subject to Landlord's approval, which shall not be unreasonably withheld, conditioned or delayed. Prior to the commencement of the Expansion Premises Alterations, Tenant shall deliver to Landlord a copy of any contract with Tenant's contractors, and certificates of insurance from any contractor performing any part of the Expansion Premises Alterations evidencing industry standard commercial general liability, automotive liability, "builder's risk", and workers' compensation insurance. Tenant shall cause the general contractor to provide a certificate of insurance naming Landlord, Alexandria Real Estate Equities, Inc., and Landlord's lender (if any) as additional insureds for the general contractor's liability coverages required above.

Upon completion of the Expansion Premises Alterations, Tenant shall deliver to Landlord the following items: (i) sworn statements setting forth the names of all contractors and subcontractors who did work on the Expansion Premises Alterations and final lien waivers from all such contractors and subcontractors; and (ii) "as built" plans for the Expansion Premises Alterations.

5. **Defined Terms**. Commencing on the Expansion Premises Commencement Date, the defined terms for "**Premises**," "**Rentable Area of Premises**," "**Rentable Area of Building**," "**Rentable Area of Project**," "**Tenant's Share of Operating Expenses of Building**," and "**Building's Share of Project**," on page 1 of the Lease shall be deleted in their entirety and replaced with the following:

"**Premises:** That portion of the Building containing an aggregate of approximately 17,408 rentable square feet, consisting of (i) approximately 9,143 rentable square feet located in Suite 200 (the "**Existing Premises**"), and (ii) approximately 8,265 rentable square feet located in Suite 215 (the "**Expansion Premises**"), all as determined by Landlord, as shown on **Exhibit A**."

"**Rentable Area of Premises:** 17,408 sq. ft."

"**Rentable Area of Building:** 148,167 sq. ft."

"**Rentable Area of Project:** 298,589 sq. ft."

"**Tenant's Share of Operating Expenses of Building:** 11.75%"

"**Building's Share of Project:** 49.62%"

6. **Base Rent**.

a. **Existing Premises**. Tenant shall continue to pay Base Rent with respect to the Existing Premises as provided for under the Lease through the Existing Expiration Date. Commencing on July 1, 2023, and on each annual anniversary thereafter (each, an "**Existing Premises Adjustment Date**") during the Extended Term, Base Rent payable with respect to the Existing Premises shall be increased by multiplying the Base Rent payable with respect to the Existing Premises immediately before such Existing Premises Adjustment Date by 3% and adding the resulting amount to the Base Rent payable with respect to the Existing Premises immediately prior to such Existing Premises Adjustment Date.

b. Expansion Premises. Commencing on the Expansion Premises Commencement Date, Tenant shall pay Base Rent with respect to the Expansion Premises in the amount of $6.00 per rentable square foot of the Expansion Premises per month. On each annual anniversary of the Expansion Premises Commencement Date (each, an "**Expansion Premises Adjustment Date**") during the Extended Term, Base Rent payable with respect to the Expansion Premises shall be increased by multiplying the Base Rent payable with respect to the Expansion Premises immediately before such Expansion Premises Adjustment Date by 3% and adding the resulting amount to the Base Rent payable with respect to the Expansion Premises immediately prior to such Expansion Premises Adjustment Date.

c. Abatement. Landlord and Tenant hereby agree that, notwithstanding anything to the contrary contained in the Lease, so long as Tenant is not in default under the Lease, beyond any applicable cure period, Tenant shall not be required to pay Base Rent under the Lease with respect to the Expansion Premises for the period beginning on the first day of the first full calendar month following the Expansion Premises Commencement Date and ending on the last day of the 3rd calendar month thereafter (the "**Third Amendment Abatement Period**"). Tenant shall resume paying (or commence paying, as applicable) 100% of the Base Rent required to be paid under the Lease on the date immediately following the expiration of the Third Amendment Abatement Period. For the avoidance of doubt, Tenant shall continue during the Third Amendment Abatement Period to pay Tenant's Share of Operating Expenses (in accordance with the terms of the Lease and without any abatement) and all other amounts due under the Lease. For avoidance of doubt, during the Third Amendment Abatement Period Tenant shall be required to pay the administration rent payable pursuant to Section 7 below on the amount of Base Rent for the Expansion Premises that would have been payable under this Third Amendment during the Third Amendment Abatement Period in the absence of such Third Amendment Abatement Period.

7. **Expansion Premises Operating Expenses**. Commencing on the Expansion Premises Commencement Date, Tenant's Share of Operating Expenses of Building shall be 11.75% and shall be payable by Tenant in accordance with Section 5 of the Original Lease; provided, however, Section 5(s) of the Original Lease shall not be applicable with respect to the Expansion Premises. For avoidance of doubt, notwithstanding anything to the contrary contained in the Lease, Operating Expenses attributable to the Expansion Premises shall include the costs of Landlord's third party property manager (not to exceed 3% of Base Rent for the Expansion Premises) or, if there is no third party property manager, administration rent in the amount of 3% of Base Rent for the Expansion Premises ("**Administration Rent**"). Tenant shall begin paying such costs of Landlord's third party property manager or Administration Rent, as applicable, on the Expansion Premises Commencement Date.

8. **Security Deposit**. Commencing on the Expansion Premises Commencement Date, the defined term "**Security Deposit**" on Page 1 of the Lease is deleted in its entirely and replaced with the following:

"**Security Deposit:** $87,076.30"

Landlord currently holds a Security Deposit of $37,486.30 under the Lease. On or before the Expansion Premises Commencement Date, Tenant shall deliver to Landlord an amended Letter of Credit which increases the amount of the existing Letter of Credit being held by Landlord to $87,076.30 or an additional Letter of Credit in the amount of $49,590.00.

9. **Amenities Fee**. Commencing on the Expansion Premises Commencement Date, the provisions of Section 41 of the Original Lease, including the ratio for fitness passes contained therein, shall apply to the entire Premises (including the Expansion Premises), except that the Amenities Fee payable by Tenant with respect to the Expansion Premises shall be equal to $0.20 per rentable square foot of the Expansion Premises per month (the "**Expansion Premises Amenities Fee**"). The Expansion Premises Amenities Fee shall be increased annually on each anniversary of the Expansion Premises Commencement Date by 3%. The provisions of this Section 9 shall not apply to the Amenities Fee with respect to the Existing Premises, which Amenities Fee shall continue to be calculated pursuant to the terms of the Original Lease.

10. **Parking**. Commencing on the Expansion Premises Commencement Date, the provisions of Section 10 of the Original Lease, including the parking ratio contained therein, shall apply to the entire Premises (including the Expansion Premises).

11. **Right to Extend Term**. Section 40 of the Original Lease is hereby deleted in its entirety, and Tenant shall no longer have a right to extend the Term of the Lease pursuant to Section 40 of the Original Lease. Notwithstanding the foregoing, pursuant to this Third Amendment, Tenant shall be granted a new right to extend the Term of the Lease upon the following terms and conditions:

a. Extension Rights. Tenant shall have 2 consecutive rights (each, an "**Extension Right**") to extend the term of the Lease for the entire Premises (including the Expansion Premises) for 12 months each (each, an "**Extension Term**") on the same terms and conditions as the Lease (other than with respect to the Work Letter) by giving Landlord written notice of its election to exercise each Extension Right at least 6 months prior to the expiration of the Extended Term or the expiration of any prior Extension Term.

Base Rent for each of the Existing Premises and the Expansion Premises shall be adjusted on the commencement date of each Extension Term by multiplying the applicable Base Rent payable immediately before such adjustment by 3% and adding the resulting amount to the applicable Base Rent payable immediately before such adjustment.

b. Rights Personal. Extension Rights are personal to Tenant and are not assignable without Landlord's consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in the Lease, except that they may be assigned in connection with any Permitted Assignment of the Lease.

c. Exceptions. Notwithstanding anything set forth above to the contrary, Extension Rights shall, at Landlord's option, not be in effect and Tenant may not exercise any of the Extension Rights:

(i) during any period of time that Tenant is in Default under any provision of the Lease; or

(ii) if Tenant has been in Default under any provision of the Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period immediately prior to the date that Tenant intends to exercise an Extension Right.

d. No Extensions. The period of time within which any Extension Rights may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Extension Rights.

e. Termination. The Extension Rights shall, at Landlord's option, terminate and be of no further force or effect even after Tenant's due and timely exercise of an Extension Right, if, after such exercise, but prior to the commencement date of an Extension Term, (i) Tenant fails to timely cure any default by Tenant under the Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of an Extension Right to the date of the commencement of the Extension Term, whether or not such Defaults are cured.

12. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with the transaction reflected in this Third Amendment and that no Broker brought about this transaction, other than Cushman & Wakefield and CBRE. Landlord and Tenant each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker, other than Cushman & Wakefield and CBRE, claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.

13. **OFAC**. Tenant is currently (a) in compliance with and shall at all times during the Term of this Lease remain in compliance with the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the term of this Lease be listed on, the Specially Designated Nationals and Blocked Persons List, Foreign Sanctions Evaders List, or the Sectoral Sanctions Identification List, which are all maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

14. **Miscellaneous**.

a. This Third Amendment is the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior and contemporaneous oral and written agreements and discussions. This Third Amendment may be amended only by an agreement in writing, signed by the parties hereto.

b. This Third Amendment is binding upon and shall inure to the benefit of the parties hereto, their respective successors in interest and assigns.

c. This Third Amendment may be executed in 2 or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature process complying with the U.S. federal ESIGN Act of 2000) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes. Electronic signatures shall be deemed original signatures for purposes of this Third Amendment and all matters related thereto, with such electronic signatures having the same legal effect as original signatures.

d. Except as amended and/or modified by this Third Amendment, the Lease is hereby ratified and confirmed and all other terms of the Lease shall remain in full force and effect, unaltered and unchanged by this Third Amendment. In the event of any conflict between the provisions of this Third Amendment and the provisions of the Lease, the provisions of this Third Amendment shall prevail. Whether or not specifically amended by this Third Amendment, all of the terms and provisions of the Lease are hereby amended to the extent necessary to give effect to the purpose and intent of this Third Amendment.

[Signatures are on the next page]

IN WITNESS WHEREOF, the parties hereto have executed this Third Amendment as of the day and year first above written.

LANDLORD:

ARE-SD REGION NO. 44, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P.,
a Delaware limited partnership, managing member

By: ARE-QRS CORP.,
a Maryland corporation, general partner

By: /s/ Gary Dean
Its: Executive Vice President – Real Estate Legal Affairs

TENANT:

PIPELINE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Peter Slover
Its: Chief Financial Officer

☒ I hereby certify that the signature, name,
and title above are my signature, name and title

EXHIBIT A-1

EXPANSION PREMISES

[omitted]

EXHIBIT A-2

EXPANSION PREMISES ALTERATIONS

[omitted]

EXHIBIT B

ACKNOWLEDGEMENT OF EXPANSION PREMISES COMMENCEMENT DATE

[omitted]

EXHIBIT C

LANDLORD'S FURNITURE

[omitted]

Exhibit 10.12

AGREEMENT FOR TERMINATION OF LEASE
AND VOLUNTARY SURRENDER OF PREMISES

This Agreement for Termination of Lease and Voluntary Surrender of Premises (this "**Agreement**") is made and entered into as of October 25, 2023, by and between **ARE-SD REGION NO. 44, LLC**, a Delaware limited liability company ("**Landlord**"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**"), with reference to the following:

RECITALS

A. Pursuant to that certain Lease Agreement dated as of January 3, 2018, as amended by that certain First Amendment to Lease dated as of February 16, 2018, as further amended by that certain Second Amendment to Lease dated as of April 2, 2018, and as further amended by that certain Third Amendment to Lease dated as of June 15, 2021 (as amended, the "**Lease**"), Tenant now leases from Landlord certain premises containing approximately 17,408 rentable square feet, commonly known as Suites 200 and 215 (the "**Premises**") in that certain building located at 10578 Science Center Drive, San Diego, California, as more particularly described in the Lease. Capitalized terms used herein without definition shall have the meanings defined for such terms in the Lease.

B. The Term of the Lease is scheduled to expire on September 30, 2024 (the "**Scheduled Expiration Date**").

C. Concurrently with the execution of this Agreement, Tenant has executed a new lease agreement with ARE-3535/3565 General Atomics Court, LLC, a Delaware limited liability company, an affiliate of Landlord, pursuant to which Tenant will lease certain premises containing approximately 24,695 rentable square feet, commonly known as Suites 200 and 100A (the "**GAC Premises**"), in that certain building located at 3565 General Atomics Court, San Diego, California (the "**GAC Lease**").

D. Tenant and Landlord desire, subject to the terms and conditions set forth below, to amend the expiration date of the Term of the Lease.

NOW, THEREFORE, in consideration of the foregoing Recitals, which are incorporated herein by this reference, the mutual promises and conditions contained herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Landlord and Tenant hereby agree as follows:

1. Termination Date. Landlord and Tenant agree, subject to the terms and conditions set forth herein, to amend the expiration date of the Term of the Lease from the Scheduled Expiration Date to 11:59 PM PST on the day that is 30 days after the "Commencement Date" (as such term is defined in the GAC Lease) (such date, the "**Termination Date**"); provided, however, that in the event Tenant is unable to relocate to the GAC Premises by the Termination Date due to Force Majeure events (including, without limitation, Force Majeure events impacting the performance of Tenant's surrender obligations as to the Premises), then the Termination Date shall be extended on a day for day basis for each day of delay caused by such Force Majeure events. Notwithstanding anything contained herein to the contrary, in the event that the GAC Lease terminates prior to the "Commencement Date" (as such term is defined in the GAC Lease) such that the "Commencement Date" (as such term is defined in the GAC Lease) never occurs, then the Termination Date shall occur on the later to occur of (i) the Scheduled Expiration Date, and (ii) the date that is 30 days after the date that the GAC Lease terminates. Notwithstanding anything contained herein to the contrary, in no event shall the Termination Date occur later than 180 days after the "Target Commencement Date" (as such term is defined in the GAC Lease) of the GAC Lease.

Notwithstanding anything to the contrary contained in the Lease, Tenant shall have no further right to expand the size of the Premises or to extend the Term of the Lease, and the Term of the Lease shall terminate on the Termination Date.

2. Termination. Notwithstanding anything to the contrary contained in this Agreement, if Tenant does not surrender the Premises on or before the Termination Date in strict accordance with the terms of this Agreement, the Term of the Lease shall nonetheless terminate on the Termination Date and the holdover provisions of the Lease shall apply.

3. Base Rent and Operating Expenses. Notwithstanding anything to the contrary contained in the Lease, so long as Tenant is not then in default under the Lease, Base Rent and Operating Expenses shall be abated for the period commencing on January 1, 2024 through the earlier of (i) the Termination Date and (ii) 30 days after the "Commencement Date" (as such term is defined in the GAC Lease) of the GAC Lease (such period, the "**Abatement Period**"). For the avoidance of doubt, Tenant shall remain obligated to pay all other amounts due and payable under the Lease during the Abatement Period, including, without limitation, charges for all Utilities used on the Premises. Tenant shall not be required to pay Base Rent or Operating Expenses for any period following the Termination Date so long as Tenant surrenders the Premises in strict compliance with this Agreement and the Lease, and Tenant is not in breach hereof or under the Lease.

4. Termination and Surrender. Tenant shall voluntarily surrender the Premises as provided in this Agreement. Tenant agrees to cooperate reasonably with Landlord in all matters, as applicable, relating to surrendering the Premises in accordance with the surrender requirements set forth in the Lease and in the condition required pursuant to the Lease. After the Termination Date, Tenant shall have no further rights of any kind with respect to the Premises. Notwithstanding the foregoing, as provided in Section 5 hereof, those provisions of the Lease which, by their terms, survive the termination of the Lease shall survive the surrender of the Premises and termination of the Lease provided for herein.

5. No Further Obligations. Landlord and Tenant each agree that the other is excused following the Termination Date from any further obligations under the Lease with respect to the Premises, excepting only such obligations under the Lease which are, by their terms, intended to survive termination of the Lease (including, without limitation, those obligations in connection with the reconciliation of Operating Expenses pursuant to Section 5 of the Lease), which are intended to survive termination of the Lease) and except as provided for in this Agreement. For avoidance of doubt, the parties agree that Tenant shall not be responsible for paying Base Rent or Operating Expenses with respect to the Premises attributable to any period of time following the Termination Date; provided, however, the holdover provisions of the Lease shall apply if Tenant fails to surrender the Premises in strict compliance with the terms of this Agreement on or before the Termination Date. In addition, nothing herein shall be deemed to limit or terminate any common law or statutory rights Landlord may have with respect to Tenant in connection with any hazardous materials or for violations of any governmental requirements or requirements of applicable law. Nothing herein shall excuse Tenant from its obligations under the Lease, as modified by this Agreement, prior to the Termination Date.

6. Removal of Personal Property. Any personal property of Tenant remaining in the Premises after the Termination Date is hereby agreed to be abandoned by Tenant and may be disposed of by Landlord, in Landlord's sole discretion, without obligation or liability of any kind to Tenant.

7. Tenant's Notice Address. Any notice given by Landlord to Tenant following the Termination Date may be delivered by (i) reputable overnight courier, or (ii) hand delivery with signature confirming receipt to the following address:

3565 General Atomics Court, Suites 200 and 100A
San Diego, California 92121
Attention: Lease Administrator

8. Acknowledgment. Tenant acknowledges that it has read the provisions of this Agreement, understands them, and is bound by them. Time is of the essence in this Agreement.

9. No Assignment. Tenant represents and warrants that Tenant has not assigned, mortgaged, subleased, pledged, encumbered or otherwise transferred any interest in the Lease and that Tenant holds the interest in the Premises as set forth in the Lease as of the date of this Agreement.

10. No Modification. This Agreement may not be modified or terminated except in writing signed by all parties.

11. Successors and Assigns. The covenants and agreements herein contained shall inure to the benefit and be binding upon the parties and their respective successors and assigns.

12. Attorneys' Fees. In the event of a dispute between the parties, the prevailing party shall be entitled to have its reasonable attorneys' fees and costs paid by the other party. Each party shall be responsible for its own costs and legal fees in connection with the negotiation, execution and delivery of this Agreement and the consummation of the transactions contemplated hereby.

13. Choice of Law. Construction and interpretation of this Agreement shall be governed by the internal laws of the state in which the Premises are located, excluding any principles of conflicts of laws.

14. Opportunity for Consultation. Each party represents and warrants that such party is entering into this Agreement knowingly and voluntarily and that each party has, or has had the opportunity to, review any and all aspects of this Agreement with the legal, tax or other advisor or advisors of such party's choice prior to executing this Agreement. Each of the parties has had the opportunity to negotiate the terms, conditions and language of this Agreement. The rule of construction that ambiguities are resolved against the drafting party shall not be applied in interpreting this Agreement.

15. OFAC. Tenant is currently (a) in compliance with and shall at all times during the Term of the Lease remain in compliance with the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the term of the Lease be listed on, the Specially Designated Nationals and Blocked Persons List, Foreign Sanctions Evaders List or the Sectoral Sanctions Identifications List, which are all maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

16. Counterparts. This Agreement may be executed in 2 or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via electronic mail (including pdf or any electronic signature process complying with the U.S. federal ESIGN Act of 2000) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes. Electronic signatures shall be deemed original signatures for purposes of this Agreement and all matters related thereto, with such electronic signatures having the same legal effect as original signatures.

[Signatures are on the next page]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

TENANT:

PIPELINE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Peter Slover Peter Slover
Its: Chief Financial Officer

☒ I hereby certify that the signature, name, and title above are my signature, name and title

LANDLORD:

ARE-SD REGION NO. 44, LLC,
a Delaware limited liability company

By: Alexandria Real Estate Equities, L.P.,
a Delaware limited partnership,
managing member

By: ARE-QRS Corp.,
a Maryland corporation,
general partner

By: /s/ Gary Dean Gary Dean
Its: Executive Vice President – Real Estate Legal Affairs

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "**Lease**") is made this 25 day of October, 2023 (the "**Effective Date**"), between **ARE-3535/3565 GENERAL ATOMICS COURT, LLC**, a Delaware limited liability company ("**Landlord**"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("**Tenant**").

BASIC LEASE PROVISIONS

Building: That certain building known as 3565 General Atomics Court, San Diego, California, which is located on the real property owned by Landlord and described on **Exhibit B-1**, which includes that certain building known as 3535 General Atomics Court, San Diego, California (collectively, the "**Property**").

Premises: That portion of the Building, commonly known as Suite 200, containing approximately 23,120 rentable square feet, and a portion of Suite 100A, containing approximately 1,575 rentable square feet, as determined by Landlord, as shown on **Exhibit A**.

Project: The project described on **Exhibit B-2**, comprised of the Property and real property owned by affiliates of Landlord and operated as a single campus, including the Building and those certain buildings commonly known as 3530 and 3550 John Hopkins Court, San Diego, California, together with all current and/or future improvements, including, without limitation, buildings, parking structures/parking areas, and Project Amenities (as defined in Section 1), thereon and appurtenances thereto.

Base Rent: Initially, $61.20 per rentable square foot of the Premises per year, subject to adjustment pursuant to Section 4 hereof.

Rentable Area of Premises: 24,695 sq. ft.

Rentable Area of Building: 42,458 sq. ft.

Rentable Area of Project: 218,459 sq. ft.

Tenant's Share of Operating Expenses of Building: 58.16%

Building's Share of Operating Expenses of Project: 19.43%

Security Deposit Amount: None.

Target Commencement Date: The date occurring 12 months after the mutual execution of this Lease by the parties.

Rent Adjustment Percentage: 3.0%

Base Term: Beginning on the Commencement Date and ending 60 months from the first day of the first full month following the Commencement Date. For clarity, if the Commencement Date occurs on the first day of a month, the expiration of the Base Term shall be measured from that date. If the Commencement Date occurs on a day other than the first day of a month, the expiration of the Base Term shall be measured from the first day of the following month.

Permitted Use: Research and development laboratory, related office and other related uses consistent with the character of the Project and otherwise in compliance with the provisions of Section 7 hereof.

Address for Rent Payment:
P.O. Box 975383
Dallas, TX 75397-5383

Landlord's Notice Address:
26 North Euclid Avenue
Pasadena, CA 91101
Attention: Corporate Secretary
Email: legalnotice@are.com

Tenant's Notice Address
Prior to Commencement Date:
10578 Science Center Drive, Suite 200
San Diego, California 92121
Attention: CFO
Email:

Tenant's Notice Address
After Commencement Date:
3565 General Atomics Court,
San Diego, California 92121
Attention: CFO
Email:

The following Exhibits and Addenda are attached hereto and incorporated herein by this reference:

[X] **EXHIBIT A** – PREMISES DESCRIPTION
[X] **EXHIBIT B-1** – DESCRIPTION OF PROPERTY
[X] **EXHIBIT B-2** – DESCRIPTION OF PROJECT
[X] **EXHIBIT C** – WORK LETTER
[X] **EXHIBIT D** – COMMENCEMENT DATE
[X] **EXHIBIT E** – RULES AND REGULATIONS
[X] **EXHIBIT F** – TENANT'S PERSONAL PROPERTY
[X] **EXHIBIT G** – MAINTENANCE OBLIGATIONS
[X] **EXHIBIT H** – CONTROL AREA
[X] **EXHIBIT I** – SIGNAGE
[X] **EXHIBIT J** – ROFR SPACE
[X] **EXHIBIT K-1** – EXISTING FF&E
[X] **EXHIBIT K-2** – REMOVABLE FF&E LIST
[X] **EXHIBIT K-3** – REMOVABLE FF&E PLAN
[X] **EXHIBIT L** – N2 STORAGE AREA
[X] **EXHIBIT M** – STORAGE AREA

1. **Lease of Premises**. Upon and subject to all of the terms and conditions hereof, Landlord hereby leases the Premises to Tenant and Tenant hereby leases the Premises from Landlord. The portions of the Project that are for the non-exclusive use of tenants of the Project are collectively referred to herein as the "**Common Areas**." Subject to the terms and conditions of this Lease, Tenant shall have the appurtenant right to use the Common Areas along with others having the right thereto. The Common Areas shall include, without limitation, any common amenities now or hereafter located in, on or otherwise serving the Project, if any, as may exist from time to time, as determined by Landlord in Landlord's sole and absolute discretion (each, a "**Project Amenity**" and collectively, the "**Project Amenities**"). Landlord reserves the right to modify the Common Areas, provided that such modifications do not materially adversely affect, except on a temporary basis, Tenant's access to or use of the Premises for the Permitted Use or Tenant's parking rights under Section 10 of this Lease. From and after the Commencement Date through the expiration of the Term (as defined in Section 2), Tenant shall have access to the Building and the Premises 24 hours a day, 7 days a week, except in the case of emergencies, as the result of Legal Requirements, the performance by Landlord of any installation, maintenance or repairs, or any other temporary interruptions, and otherwise subject to the terms of this Lease.

2. **Delivery; Acceptance of Premises; Commencement Date**. Landlord shall use reasonable efforts to deliver the Premises to Tenant on or before the Target Commencement Date, with Landlord's Work Substantially Completed ("**Delivery**" or "**Deliver**"). Landlord shall Deliver the Premises to Tenant upon Substantial Completion of the Tenant Improvements. If Landlord fails to timely Deliver the Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable. If Landlord does not Deliver the Premises within 120 days of the Target Commencement Date for any reason other than Force Majeure (as defined in Section 34) delays and Tenant Delays, this Lease may be terminated by Tenant by written notice to Landlord, and if so terminated by Tenant, neither Landlord nor Tenant shall have any further rights, duties or obligations under this Lease, except with respect to provisions which expressly survive termination of this Lease. As used herein, the terms "**Landlord's Work**," "**Tenant Delays**" and "**Substantially Completed**" shall have the meanings set forth for such terms in the Work Letter. If Tenant does not elect to void this Lease within 5 business days of the lapse of such 120 day period (as extended by Force Majeure delays and Tenant Delays) such right to void this Lease shall be waived and this Lease shall remain in full force and effect.

The "**Commencement Date**" shall be the earlier of: (i) the date Landlord Delivers the Premises to Tenant; and (ii) the date Landlord could have Delivered the Premises but for Tenant Delays. Upon request of Landlord or Tenant, the parties shall execute and deliver a written acknowledgment of the Commencement Date and the expiration date of the Term when such are established in the form of the "Acknowledgement of Commencement Date" attached to this Lease as **Exhibit D**; provided, however, either party's failure to execute and deliver such acknowledgment shall not affect either party's rights hereunder. The "**Term**" of this Lease shall be the Base Term, as defined in the Basic Lease Provisions and the Extension Term which Tenant may exercise pursuant to Section 40 of this Lease.

Subject to the provisions of Section 6 of the Work Letter, provided that Tenant has delivered a certificate of insurance reflecting the insurance coverage required to be maintained by Tenant under Section 17, Landlord shall permit Tenant access to the Premises for a period of up to 45 days prior to the Commencement Date for Tenant's installation and setup of furniture, fixtures and equipment (which shall include, without limitation, Tenant's installation of low voltage cabling and Tenant's Security System (as defined below) within the Premises) ("**FF&E Installation**"), provided that such FF&E Installation is coordinated with Landlord and does not interfere with or delay Landlord's construction of Landlord's Work, and Tenant complies with the terms of this Lease and all other reasonable restrictions and conditions Landlord may impose. All such access shall be during normal business hours. Any access to the Premises by Tenant before the Commencement Date shall be subject to all of the terms and conditions of this Lease, excluding the obligation to pay Base Rent, Operating Expenses or Utilities (as defined below).

During the Lease Term, Tenant shall have the right to use all of the furniture, fixtures and equipment located within the Premises (the "**Existing FF&E**") identified in further detail on **Exhibit K-1** attached hereto, at no additional cost or expense to Tenant. For the avoidance of doubt, prior to the Commencement Date, Landlord shall remove from the Premises all of the furniture, fixtures and equipment (i) identified on **Exhibit K-2** attached hereto (the "**Removable FF&E List**") and, to the extent not duplicative of the foregoing, (ii) identified in red on the space plan attached hereto as **Exhibit K-3** ("**Removable FF&E Space Plan**"). Tenant shall have no right to remove any of the Existing FF&E from the Premises without Landlord's prior written consent and the Existing FF&E shall be returned to Landlord at the expiration or earlier termination of the Term in its the same condition as received, subject to ordinary wear and tear. Following the Commencement Date, Landlord will remove, at Tenant's sole cost and expense, all Existing FF&E that the Tenant identifies as not needed by Tenant by written notice thereof to Landlord, and Landlord shall remove such identified Existing FF&E from the Premises within a reasonable time period thereafter.

Landlord and Tenant acknowledge and agree that (i) as of the date of this Lease there exist significant global supply chain delays and shortages of construction materials, supplies and equipment (collectively, "**Supply Chain Delays**"), (ii) the availability of fixtures, equipment and/or materials required for the performance and/or Substantial Completion of the Tenant Improvements (collectively, "**Required Materials**"), may be subject to longer lead times than normally anticipated due to such Supply Chain Delays, (iii) the unavailability or delayed delivery of Required Materials may result in disruption to progress of the construction of the Tenant Improvements in the ordinary course, and (iv) the Substantial Completion of the Tenant Improvements may be delayed resulting directly or indirectly from the unavailability or delayed delivery of Required Materials. Landlord shall notify Tenant in writing of any Supply Chain Delays that may result in any delay in the substantial completion of the Tenant Improvements at the time Landlord is notified or made aware of such Supply Chain Delays and shall provide Tenant with a written estimate of the expected delay. Landlord shall use commercially reasonable efforts to mitigate the impacts of such Supply Chain Delays; provided, however, that Landlord shall not be required to incur any additional cost or expense in connection with such mitigation.

Landlord and Tenant further acknowledge and agree that (i) as of the date of this Lease, the City of San Diego (the "**City**") is routinely taking longer to issue the permits and approvals (collectively, "**Permits**") required for the design and construction of Improvements than the timeframes contemplated by Landlord in the development of the schedule for the completion of Improvements (the "**Standard Issuance Period**"), and (ii) to the extent the issuance of any Permits required for the design and/or construction of Improvements is delayed beyond the Standard Issuance Period (except for delays due to Landlord's failure

to timely provide the City with information requested from Landlord by the City (except to the extent that such delays arise due to Tenant's failure to provide Landlord information requested from Tenant by Landlord)), then the Target Commencement Date shall be delayed 1 day for each day following the expiration of the Standard Issuance Period that the City fails to issue any such Permits (through and including the date that such Permits are issued by the City). Landlord shall use commercially reasonable efforts to mitigate the impacts of any Permit Delays; provided, however, that Landlord shall not be required to incur any additional cost or expense in connection with such mitigation.

Except as set forth in the Work Letter: (A) Tenant shall accept the Premises in their condition as of the Commencement Date; (B) Landlord shall have no obligation for any defects in the Premises; and (C) Tenant's taking possession of the Premises shall be conclusive evidence that Tenant accepts the Premises and that the Premises were in good condition at the time possession was taken. Notwithstanding the foregoing, nothing in this paragraph shall limit Landlord's repair and maintenance obligations under Section 13 of the Lease.

Landlord shall, at its sole cost and expense (which shall not constitute an Operating Expense), be responsible for any repairs that are required to be made to the Building Systems (as defined in Section 13) serving the Premises of which Tenant notifies Landlord in writing within 90 calendar days after the Commencement Date, unless Tenant or any Tenant Party was responsible for the cause of such repair, in which case Tenant shall pay the cost

Tenant agrees and acknowledges that, except as otherwise expressly set forth in this Lease (including the Work Letter), neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Premises, the Property or the Project, and/or the suitability of the Premises, the Property or the Project for the conduct of Tenant's business, and Tenant waives any implied warranty that the Premises, the Property or the Project are suitable for the Permitted Use. This Lease constitutes the complete agreement of Landlord and Tenant with respect to the subject matter hereof and supersedes any and all prior representations, inducements, promises, agreements, understandings and negotiations that are not contained herein. Landlord in executing this Lease does so in reliance upon Tenant's representations, warranties, acknowledgments and agreements contained herein.

3. **Rent**.

(a) **Base Rent**. On the later to occur of (i) the date Tenant delivers an executed copy of this Lease to Landlord, and (ii) October 1, 2023, Tenant shall deliver to Landlord Base Rent in the amount of $251,889.00. 50% of foregoing amount shall be credited towards the Base Rent due for the first full calendar month of the Base Term, and the remaining 50% of such amount shall be a credit towards Base Rent due for the last full calendar month of the Base Term. Subject to the foregoing sentence, Tenant shall pay to Landlord in advance, without demand, abatement (except as otherwise expressly provided for in this Lease), deduction or set-off, monthly installments of Base Rent on or before the first day of each calendar month during the Term hereof, in lawful currency of the United States of America, to the physical address designated by Landlord or by federally insured electronic fund transfer ("**EFT**") via wire, Society for Worldwide Interbank Financial Communications (SWIFT) or automated clearing house (ACH) pursuant to the instructions provided by Landlord to Tenant (the "**EFT Payment Instructions**"). All EFT payments made by Tenant pursuant to this Section 3(a) must include a reference to *ARE-3535/3565 General Atomics Court, LLC,* as well as the address of the Building (i.e., *3565 General Atomics Court*). Payments of Base Rent for any fractional calendar month shall be prorated. Notwithstanding anything to the contrary contained herein, if the Commencement Date occurs on a day other than the first day of a calendar month, then Tenant shall pay to Landlord the prorated Base Rent for such partial month on the Commencement Date and the prepaid Base Rent delivered by Tenant pursuant to this first sentence of this Section 3(a) shall be applied to the first full calendar month following the Commencement Date. The obligation of Tenant to pay Base Rent and other sums to Landlord and the obligations of Landlord under this Lease are independent obligations. Tenant shall have no right at any time to abate, reduce, or set-off any Rent (as defined in Section 5) due hereunder except for any abatement as may be expressly provided in this Lease.

(b) **Additional Rent**. In addition to Base Rent, Tenant agrees to pay to Landlord as additional rent ("**Additional Rent**"): (i) commencing on the Commencement Date, Tenant's Share of "Operating Expenses" (as defined in Section 5) as provided in Section 5, and (ii) any and all other amounts Tenant assumes or agrees to pay under the provisions of this Lease, including, without limitation, any and all other sums that may become due by reason of any failure to comply with the agreements, terms, covenants and conditions of this Lease to be performed by Tenant, after any applicable notice and cure period. Tenant shall pay to Landlord any and all Additional Rent due hereunder by EFT in accordance with the EFT Payment Instructions. All EFT payments made by Tenant pursuant to this Section 3(b) must include a reference to *ARE-3535/3565 General Atomics Court, LLC*, as well as the address of the Building (i.e., *3565 General Atomics Court*).

4. **Adjustments**. Base Rent shall be increased on each annual anniversary of the Commencement Date (provided, however, that if the Commencement Date occurs on a day other than the first day of a calendar month, then Base Rent shall be increased on each annual anniversary of the first day of the first full calendar month immediately following the Commencement Date) (each an "**Adjustment Date**") by multiplying the Base Rent payable immediately before such Adjustment Date by the Adjustment Percentage and adding the resulting amount to the Base Rent payable immediately before such Adjustment Date. Base Rent, as so adjusted, shall thereafter be due as provided herein. Base Rent adjustments for any fractional calendar month shall be prorated.

5. **Operating Expense Payments**.

(a) Landlord shall deliver to Tenant a written estimate of Operating Expenses for each calendar year during the Term (the "**Annual Estimate**"), which may be reasonably revised by Landlord from time to time during such calendar year. Commencing on the Commencement Date, and continuing thereafter on the first day of each month during the Term, Tenant shall pay Landlord an amount equal to 1/12th of Tenant's Share of the Annual Estimate. Payments for any fractional calendar month shall be prorated.

(b) The term "**Operating Expenses**" means all costs and expenses of any kind or description whatsoever incurred or accrued each calendar year by Landlord with respect to the Building (including the Building's Share of all costs and expenses of any kind or description incurred or accrued by Landlord with respect to the Project) including, without duplication, (1) Taxes (as defined in Section 9), (2) the cost of upgrades to the Building or Project or enhanced services provided at the Building and/or Project which are intended to encourage social distancing, promote and protect health and physical well-being and/or intended to limit the spread of Infectious Conditions (as defined in Section 26), (3) the cost of the Project Amenities (including, without limitation, reimbursement by Landlord to affiliates of Landlord for market rent paid by such affiliates to Landlord for Project Amenities space, commercially reasonable reduced rent, commercially reasonable subsidies or other commercially reasonable concessions which Landlord may provide in connection with the Project Amenities), (4) transportation services (including the Shuttle Service Costs (as defined in Section 44(s)), and (5) the cost of repairs, improvements and replacements, provided that to the extent that such repairs, improvements and/or replacements are reasonably determined by Landlord to be Capital Items (as defined in sub-section (ii) below), such costs shall be amortized over the lesser of 10 years and the useful life of such Capital Items, as reasonably determined by Landlord taking into account all relevant factors including, without limitation, the 24/7 operation of the Building, with interest at 8.5% per annum, excluding only:

(i) the original construction costs of the Project and renovation prior to the Commencement Date (and the original construction costs of the parking structure, if any, currently serving the Building) and costs of correcting defects in such original construction or renovation;

(ii) capital expenditures except for repairs, improvements or replacements, to the extent reasonably determined by Landlord in accordance with sound real estate accounting principles to be capital in nature, and: (1) are required in order to comply with Legal Requirements first imposed after the Commencement Date; (2) are intended to reduce Operating Expenses

and/or to maintain or improve the utility or efficiency of the Project including any Building Systems (as defined in Section 13), (3) maintain or improve the safety, security or sustainability of the Project, or (4) are required to replace capital items that have reached the end of their useful life or to extend the life of any capital items, including the replacements of parts or components of capital items (collectively, "**Capital Items**");

(iii) interest, principal payments of Mortgage debts of Landlord, financing costs and amortization of funds borrowed by Landlord, whether secured or unsecured, and all payments of base rent (but not taxes or operating expenses) under any ground lease or other underlying lease of all or any portion of the Project;

(iv) depreciation of the Project (except for Capital Items, the cost of which are includable in Operating Expenses);

(v) advertising, legal and space planning expenses and leasing commissions and other costs and expenses incurred in procuring and leasing space to tenants for the Project, including any leasing office maintained in the Project, free rent and construction allowances for tenants;

(vi) legal and other expenses incurred in the negotiation or enforcement of leases;

(vii) completing, fixturing, improving, renovating, painting, redecorating or other work, which Landlord pays for or performs for other tenants within their premises, and costs of correcting defects in such work;

(viii) costs to be reimbursed by other tenants of the Project or Taxes to be paid directly by Tenant or other tenants of the Project, whether or not actually paid;

(ix) salaries, wages, benefits and other compensation paid to (i) personnel of Landlord or its agents or contractors above the position of the person, regardless of title, who has day-to-day management responsibility for the Project or (ii) officers and employees of Landlord or its affiliates who are not assigned in whole or in part to the operation, management, maintenance or repair of the Project; provided, however, that with respect to any such person who does not devote substantially all of his or her employed time to the Project, the salaries, wages, benefits and other compensation of such person shall be prorated to reflect time spent on matters related to operating, managing, maintaining or repairing the Project in comparison to the time spent on matters unrelated to operating, managing, maintaining or repairing the Project;

(x) costs incurred for off-site offices or facilities maintained in connection with the management, operation, engineering, sustainability, Utility and/or security services provided to the Project and other properties owned by Landlord or affiliates of Landlord, except to the extent of the Project's share of such costs as proportionately allocated among the Project and such other properties owned by Landlord or affiliates of Landlord served by such off-site offices or facilities;

(xi) general organizational, administrative and overhead costs relating to maintaining Landlord's existence, either as a corporation, partnership, or other entity, including general corporate, legal and accounting expenses;

(xii) costs (including attorneys' fees and costs of settlement, judgments and payments in lieu thereof) incurred in connection with disputes with tenants, other occupants, or prospective tenants, and costs and expenses, including legal fees, incurred in connection with negotiations or disputes with employees, consultants, management agents, leasing agents, purchasers or mortgagees of the Building;

(xiii) costs including, without limitation, penalties and fines, incurred by Landlord due to the violation by Landlord, its employees, agents or contractors or any tenant of the terms and conditions of any lease of space in the Project or any Legal Requirement (as defined in Section 7);

(xiv) penalties, fines or interest incurred as a result of Landlord's inability or failure to make payment of Taxes and/or to file any tax or informational returns when due, or from Landlord's failure to make any payment of Taxes required to be made by Landlord hereunder before delinquency;

(xv) overhead and profit increment paid to Landlord or to subsidiaries or affiliates of Landlord for goods and/or services in or to the Project to the extent the same exceeds the costs of such goods and/or services rendered by unaffiliated third parties on a competitive basis;

(xvi) costs of Landlord's charitable or political contributions, or of fine art maintained at the Project;

(xvii) costs in connection with services (including electricity), items or other benefits of a type which are not standard for the Project and which are not available to Tenant without specific charges therefor, but which are provided to another tenant or occupant of the Project, whether or not such other tenant or occupant is specifically charged therefor by Landlord;

(xviii) costs incurred in the sale or refinancing of the Project;

(xix) net income taxes of Landlord or the owner of any interest in the Project or franchise, capital stock, gift, estate or inheritance taxes, transfer taxes, or any federal, state or local documentary taxes imposed against the Project or any portion thereof or interest therein (except to the extent such taxes are in substitution for any Taxes payable hereunder);

(xx) any costs incurred to remove, study, test or remediate Hazardous Materials in or about the Building or the Project for which Tenant is not responsible under this Lease;

(xxi) costs of any "tap fees" or any sewer or water connection fees for the benefit of any particular tenant (other than Tenant) at the Project;

(xxii) long term rentals for equipment ordinarily considered to be of a capital nature if such equipment is customarily leased in the operation of first class laboratory/office buildings in the San Diego metropolitan area;

(xxiii) costs in connection with the Regional Amenities (as defined in Section 41), other than the Regional Amenities Fee (as defined in Section 41) payable by Tenant pursuant to Section 41;

(xxiv) costs occasioned by condemnation;

(xxv) any expenses otherwise includable within Operating Expenses to the extent actually reimbursed by insurance (or which would have been reimbursed by insurance required to be carried by Landlord pursuant to Section 17);

(xxvi) the costs of performing the Tenant Improvements;

(xxvii) any bad debt loss, rent loss, or reserves for bad debts or rent loss;

(xxviii) costs of repairs or other work necessitated by fire, windstorm or other similar casualty (deductible amounts may be included by Landlord as part of Operating Expenses);

(xxix) costs reimbursed to Landlord under any warranty carried by Landlord for the Project, which warranties Landlord shall, as part of Operating Expenses, use commercially reasonable efforts to enforce;

(xxx) insurance deductibles in excess of deductibles that Tenant can demonstrate are in excess of customary deductible amounts carried by institutional owners of comparable projects in the Torrey Pines area; and

(xxxi) reserves other than for the payment of Taxes for the then-current calendar year;

(xxxii) costs of signs at the Project in or on the Buildings exclusively identifying Landlord as the owner of the Project or exclusively identifying other tenants;

(xxxiii) costs for late charges, interest or penalties due to the late payment of bills by Landlord unless Tenant fails to make any applicable payments to Landlord on the due date;

(xxxiv) costs of repairs directly resulting from the gross negligence or willful misconduct of Landlord or any Landlord Parties (as defined below);

(xxxv) any entertainment, dining (not including subsidies in connection with the Project Amenities which shall be included as part of Operating Expenses) or travel expenses for any purpose;

(xxxvi) the costs of any flowers, gifts, balloons, etc. provided to any prospective tenants, Tenant, other tenants, and occupants of the Project; and

(xxxvii) any expenses otherwise includable within Operating Expenses to the extent actually reimbursed by persons other than tenants of the Project under leases for space in the Project.

As part of Operating Expenses, Tenant shall be required to pay the costs of Landlord's third party property manager (not to exceed 3% of Base Rent) or, if there is no third party property manager, administration rent in the amount of 3.0% of Base Rent.

In addition, notwithstanding anything to the contrary contained in this Lease, Operating Expenses incurred or accrued by Landlord with respect to any Capital Items that are reasonably expected by Landlord to reduce overall Operating Expenses (for example, without limitation, by reducing energy usage at the Project) (the "**Energy Savings Costs**") shall be amortized over a period of years equal to the least of (A) 10 years, (B) the useful life of such Capital Items, and (C) the quotient of (i) the Energy Savings Costs, divided by (ii) the annual amount of Operating Expenses reasonably expected by Landlord to be saved as a result of such Capital Items.

(c) Within 90 days after the end of each calendar year (or such longer period as may be reasonably required), Landlord shall furnish to Tenant a statement for the previous calendar year (an "**Annual Statement**") showing in reasonable detail: (i) the total Operating Expenses, (ii) Tenant's Share of Operating Expenses, and (iii) the total amount of Operating Expenses actually paid by Tenant. If Tenant's Share of Operating Expenses for such year exceeds the total amount of Operating Expenses actually paid by Tenant for such year, then the excess shall be due and payable by Tenant as Rent within 30 days after delivery of such Annual Statement to Tenant. If the total amount of Operating Expenses actually paid by Tenant for such year exceeds the amount of Tenant's Share of Operating Expenses for such year, then Landlord shall pay the excess to Tenant within 30 days after delivery of such Annual Statement, except that after the expiration or earlier termination of the Term, or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. Landlord's and Tenant's obligations to pay any overpayments or deficiencies due pursuant to this paragraph shall survive the expiration or earlier termination of this Lease.

(d) The Annual Statement shall be final and binding upon Tenant unless Tenant, within 90 days after Landlord's delivery to Tenant of the Annual Statement, shall contest any item therein by giving written notice to Landlord, specifying each item contested and the reason therefor. If, during such 90 day period, Tenant reasonably and in good faith questions or contests the accuracy of Landlord's statement of Tenant's Share of Operating Expenses, Landlord will provide Tenant with access to Landlord's books and records relating to the operation of the Project and such information as Landlord reasonably determines to be responsive to Tenant's questions, including source documentation for the disputed items (the "**Expense Information**"). If after Tenant's review of such Expense Information, Landlord and Tenant cannot agree upon the amount of Tenant's Share of Operating Expenses, then Tenant shall have the right to have a regionally or nationally recognized independent accounting firm selected by Tenant and approved by Landlord (which approval shall not be unreasonably withheld or delayed), working pursuant to a fee arrangement other than a contingent fee (at Tenant's sole cost and expense), audit and/or review the Expense Information for the year in question (the "**Independent Review**"). The results of any such Independent Review shall be binding on Landlord and Tenant. If the Independent Review shows that the payments actually made by Tenant with respect to Operating Expenses for the calendar year in question exceeded Tenant's Share of Operating Expenses for such calendar year, Landlord shall at Landlord's option either (i) credit the excess amount to the next succeeding installments of estimated Operating Expenses or (ii) pay the excess to Tenant within 30 days after delivery of such statement, except that after the expiration or earlier termination of this Lease or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. If the Independent Review shows that Tenant's payments with respect to Operating Expenses for such calendar year were less than Tenant's Share of Operating Expenses for the calendar year, Tenant shall pay the deficiency to Landlord within 30 days after delivery of such statement. If the Independent Review shows that Tenant has overpaid with respect to Operating Expenses by more than 5% then Landlord shall reimburse Tenant for all actual, out-of-pocket costs incurred by Tenant for the Independent Review. Tenant shall not disclose the results of any Independent Review to any third parties; provided, however, that Tenant may disclose such information to Tenant's employees, attorneys and accountants in connection with Tenant's business at the Premises or if required in connection with any dispute resolution proceeding between Landlord and Tenant.

(e) Operating Expenses for the calendar years in which Tenant's obligation to share therein begins and ends shall be prorated. Notwithstanding anything set forth herein to the contrary, if the Building is not at least 95% occupied on average during any year of the Term, Tenant's Share of Operating Expenses for such year shall be computed as though the Building had been 95% occupied on average during such year.

(f) *"***Tenant's Share**" shall be the percentage set forth on the first page of this Lease as "Tenant's Share of Operating Expenses of Building," and "**Building's Share**" shall be the percentage set forth on the first page of this Lease as "Building's Share of Operating Expenses of Project," each as may be reasonably adjusted by Landlord for changes in the physical size of the Premises, Building, Property and/or Project occurring thereafter. Landlord and Tenant agree that the rentable square footage of the Premises set forth on Page 1 of the Lease shall not be subject to re-measurement by either party during the Base Term. If Landlord has a reasonable basis for doing so, Landlord may equitably increase Tenant's Share for any Operating Expenses that relate to any item of expense or cost (1) equitably and reasonably allocated only to the Premises, the Building, Property or Project that includes the Premises, (2) equitably and reasonably allocated to only a portion of the Building, Property or Project that includes the Premises, or (3) a greater proportion of which is equitably and reasonably allocated to the Premises, or a portion of the Building or Project that includes the Premises, as reasonably determined by Landlord. If Landlord has a reasonable basis for doing so, Landlord may equitably increase the Building's Share for any Operating Expenses that relate to any items of expense or cost (A) equitably and reasonably allocated to only the Building or a portion of the Property or Project that includes the Building, or (B) a greater proportion of which is equitably and reasonably allocated to the Building, the Property or a portion of the Project that includes the Building, as reasonably determined by Landlord. Base Rent, Tenant's Share of Operating Expenses and all other amounts payable by Tenant to Landlord hereunder are collectively referred to herein as "**Rent**."

6. **Intentionally Deleted.**

7. **Use**.

(a) **Generally**. The Premises shall be used solely for the Permitted Use set forth in the Basic Lease Provisions, and in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Premises, and to the use and occupancy thereof, including, without limitation, the Americans With Disabilities Act, 42 U.S.C. § 12101, et seq. (together with the regulations promulgated pursuant thereto, "**ADA**") (collectively, "**Legal Requirements**" and each, a "**Legal Requirement**"). Tenant shall, upon 5 days' written notice from Landlord, discontinue any use of the Premises that is declared by any Governmental Authority (as defined in Section 9) having jurisdiction to be a violation of a Legal Requirement. Tenant will not use or permit the Premises to be used for any purpose or in any manner that would void Tenant's or Landlord's insurance, increase the insurance risk, or cause the disallowance of any sprinkler or other credits. The use that Tenant has disclosed to Landlord that Tenant will be making of the Premises as of the Commencement Date will not result in the voidance or an increased insurance risk with respect to the insurance currently being maintained by Landlord. Tenant shall reimburse Landlord promptly upon demand for any additional premium charged for any such insurance policy by reason of Tenant's failure to comply with the provisions of this Section 7. Tenant shall not permit any part of the Premises to be used as a "place of public accommodation", as defined in the ADA or any similar Legal Requirement. Tenant will use the Premises in a careful, safe and proper manner and will not commit or permit waste, overload the floor or structure of the Premises, subject the Premises to use that would damage the Premises or obstruct or interfere with the rights of Landlord or other tenants or occupants of the Project. In no event shall Tenant conduct any auction, liquidation, or going out of business sale on the Premises, or use or allow the Premises to be used for any unlawful purpose. Tenant shall cause any equipment or machinery to be installed in the Premises so as to reasonably prevent sounds or vibrations from the Premises from extending into Common Areas, or other space in the Project. Tenant shall not place any machinery or equipment which would overload the floor in or upon the Premises (unless Tenant agrees to pay, at its sole cost and expense, for any reinforcement of the floor as reasonably determined to be necessary by Landlord) or transport or move such items through the Common Areas of the Project or in the Project elevators without the prior written consent of Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. Except as may be provided under the Work Letter, Tenant shall not, without the prior written consent of Landlord, use the Premises in any manner that will require ventilation, air exchange, heating, gas, steam, electricity or water beyond the existing capacity of the Building as proportionately allocated to the Premises based upon Tenant's Share as usually furnished for the Permitted Use (unless Tenant agrees to pay, at its sole cost and expense, all costs in connection with altering the Building to increase such capacity).

(b) **Compliance**. Landlord shall be responsible, (i) subject to the terms of the Work Letter, for the compliance of the Premises with Legal Requirements (including, without limitation, the ADA) as of the Commencement Date, and (ii) at Landlord's cost, for the compliance of the Common Areas of the Project with Legal Requirements (including, without limitation, the ADA) as of the Commencement Date. Following the Commencement Date, Landlord shall make any alterations or modifications to the Common Areas that are required by Legal Requirements and cost of such alterations or modifications shall (x) constitute an Operating Expense (to the extent such Legal Requirement is generally applicable to similar buildings in the area in which the Project is located and is not otherwise excluded from Operating Expenses under Section 5(b) above), or (y) be at Tenant's expense (to the extent such Legal Requirement is triggered by reason of Tenant's, as compared to other tenants of the Project, specific use of the Premises or Alterations (as defined in Section 12 below)). Except as otherwise expressly provided in the 2 immediately preceding sentences, Tenant, at its sole expense, shall make any alterations or modifications to the interior of the Premises that are required by Legal Requirements (including, without limitation, compliance of the Premises with the ADA) related to Tenant's specific use or occupancy of the Premises and any Alterations. Notwithstanding any other provision herein to the contrary, Tenant shall be responsible for any and all Claims (as defined in Section 16) arising out of or in connection with Legal Requirements related to Tenant's specific use or occupancy of the Premises or Alterations, and Tenant shall indemnify, defend, hold and save Landlord harmless from and against any and all Claims arising out of or in connection with any failure of the Premises to comply with any Legal Requirement related to Tenant's specific use or occupancy of the Premises or Alterations.

(c) **Sustainability**. Tenant acknowledges that Landlord may, but shall not be obligated to, seek to obtain Leadership in Energy and Environmental Design (LEED), WELL Building Standard, or other similar "green" certification with respect to the Project and/or the Premises, and Tenant agrees to reasonably cooperate with Landlord, and to provide such information and/or documentation as Landlord may reasonably request, in connection therewith. Any costs incurred to obtain any such "green" certification shall be paid by Landlord, at no cost to Tenant; provided, however, that any costs incurred by Landlord to maintain such "green" certification in effect shall be included as part of Operating Expenses.

8. **Holding Over**. If Tenant remains in possession of the Premises after the expiration or earlier termination of the Term without the express written consent of Landlord, (a) Tenant shall become a tenant at sufferance upon the terms of this Lease except that (x) for the first 60 days of such holdover, the monthly rental shall be equal to 125% of Rent in effect during the last 30 days of the Term, and (y) thereafter, the monthly rental shall be equal to (i) 150% of Base Rent in effect during the last 30 days of the Term, plus (ii) Tenant's Share of Operating Expenses, plus (iii) all other amounts payable by Tenant under this Lease, and (b) Tenant shall be responsible for all damages suffered by Landlord resulting from or occasioned by Tenant's holding over including, without limitation, consequential damages; provided, however, that if Tenant delivers a written inquiry to Landlord within 30 days prior to the expiration or earlier termination of the Term, Landlord will notify Tenant whether the potential exists for consequential damages; provided, however, that Tenant shall not be liable for consequential damages in connection with a holdover of 30 days or less. No holding over by Tenant, whether with or without consent of Landlord, shall operate to extend this Lease except as otherwise expressly provided, and this Section 8 shall not be construed as consent for Tenant to retain possession of the Premises. Acceptance by Landlord of Rent after the expiration of the Term or earlier termination of this Lease shall not result in a renewal or reinstatement of this Lease.

9. **Taxes**. Landlord shall pay, as part of Operating Expenses, all taxes, levies, fees, assessments and governmental charges of any kind, existing as of the Commencement Date or thereafter enacted (collectively referred to as "**Taxes**"), imposed by any federal, state, regional, municipal, local or other governmental authority or agency, including, without limitation, quasi-public agencies (collectively, "**Governmental Authority**") during the Term, including, without limitation, all Taxes: (a) imposed on or measured by or based, in whole or in part, on rent payable to (or gross receipts received by) Landlord under this Lease and/or from the rental by Landlord of the Building, Property or Project or any portion thereof, or (b) based on the square footage, assessed value or other measure or evaluation of any kind of the Premises, the Building, the Property or the Project, or (c) assessed or imposed by or on the operation or maintenance of any portion of the Premises, the Building, the Property or the Project, including parking, or (d) assessed or imposed by, or at the direction of, or resulting from Legal Requirements, or interpretations thereof, promulgated by any Governmental Authority, or (e) imposed as a license or other fee, charge, tax, or assessment on Landlord's business or occupation of leasing space in the Property or Project. Landlord may contest by appropriate legal proceedings the amount, validity, or application of any Taxes or liens securing Taxes. Notwithstanding anything to the contrary herein, Landlord shall only charge Tenant for such assessments as if those assessments were paid by Landlord over the longest possible term which Landlord is permitted to pay for the applicable assessments without additional charge other than interest, if any, provided under the terms of the underlying assessments. Taxes shall not include any net income taxes except to the extent such net income taxes are in substitution for any Taxes payable hereunder. If any such Taxes are levied or assessed directly against Tenant, then Tenant shall be responsible for and shall pay the same at such times and in such manner as the taxing authority shall require. Tenant shall pay, prior to delinquency, any and all Taxes levied or assessed against any personal property or trade fixtures placed by Tenant in the Premises, whether levied or assessed against Landlord or Tenant. If any Taxes on Tenant's personal property or trade fixtures are levied against Landlord or Landlord's property, or if the assessed valuation of the Building, Property or Project is increased by a value attributable to improvements in or alterations to the Premises, whether owned by Landlord or Tenant and regardless of whether such improvements or alterations are affixed to the real property so as to become a part thereof,

higher than the base valuation on which Landlord from time-to-time allocates Taxes to all tenants in the Building, Property or Project, Landlord shall have the right, but not the obligation, to pay such Taxes. Landlord's determination of any excess assessed valuation shall be binding and conclusive, absent manifest error. The amount of any such payment by Landlord shall constitute Additional Rent due from Tenant to Landlord immediately upon demand.

10. **Parking**. Subject to all applicable Legal Requirements, Force Majeure, a Taking (as defined in Section 19 below) and the exercise by Landlord of its rights hereunder, Tenant shall have the right, at no additional cost to Tenant during the Base Term, in common with other tenants of the Project, to use (x) 32 parking spaces located in the subterranean parking structure serving the Building, of which up to 12 of such spaces may, at Landlord's election, be tandem parking spaces, provided that Tenant shall in any case receive 32 parking cards for entry into such subterranean parking structure serving the Building, and (y) 26 parking spaces located in the surface parking lot serving the Project, in those areas designated for non-reserved parking, subject in each case to Landlord's reasonable and non-discriminatory rules and regulations. Landlord may allocate parking spaces among Tenant and other tenants in the Project if Landlord determines that such parking facilities are becoming crowded. Landlord shall not be responsible for enforcing Tenant's parking rights against any third parties, including other tenants of the Project.

11. **Utilities; Services**.

(a) **Generally**. Landlord shall provide or cause to be provided to the Premises, subject to the terms of this Section 11, (i) water, (ii) electricity (including lights and plugs), (iii) heat, ventilation and air conditioning (collectively, "**HVAC**"), (iv) power, (v) natural gas and (vi) sewer (collectively, "**Utilities**"). Landlord shall pay, as Operating Expenses or subject to Tenant's direct reimbursement obligation as provided for below, for all Utilities used on the Premises, all maintenance charges for Utilities, and any storm sewer charges or other similar charges for Utilities imposed by any Governmental Authority or Utility provider, and any Taxes, penalties, surcharges or similar charges thereon. Landlord may cause, at Landlord's expense (except to the extent necessary as a result of Tenant's disproportionate use of Utilities in which case Tenant shall pay the cost), any Utilities to be separately metered or charged directly to Tenant by the provider. The Premises are not currently submetered for electricity. As part of Landlord's Work, Landlord shall install, at Landlord's sole cost, emon dmon or similar submeters in the Premises to measure Tenant's usage of electricity to lights and plugs in the Premises. Tenant shall pay directly to the Utility provider, prior to delinquency, any separately metered Utilities and services (with may include, among other Utilities and services, telephone and internet service) which may be furnished to Tenant or the Premises during the Term. Tenant shall pay, as part of Operating Expenses, its share of all charges for jointly metered Utilities based upon consumption, as reasonably determined by Landlord. Landlord shall make no profit from the collection of Operating Expenses with respect to jointly metered Utilities. No interruption or failure of Utilities from any cause whatsoever shall result in eviction or constructive eviction of Tenant, termination of this Lease or, except as otherwise provided in the immediately following paragraph, the abatement of Rent. Tenant agrees to limit use of water and sewer with respect to Common Areas to normal restroom use.

Notwithstanding anything to the contrary set forth herein, if (i) a stoppage of a Utility Service (as defined below) to the Premises shall occur and such stoppage is due solely to the gross negligence or willful misconduct of Landlord and not due in any part to any act or omission on the part of Tenant or any Tenant Party or any matter beyond Landlord's reasonable control (any such stoppage of a Utility Service being hereinafter referred to as a "**Service Interruption**"), and (ii) such Service Interruption continues for more than 3 consecutive business days after Landlord shall have received written notice thereof from Tenant, and (iii) as a result of such Service Interruption, the conduct of Tenant's normal operations in the Premises are materially and adversely affected, then there shall be an abatement of one day's Base Rent for each day during which such Service Interruption continues after such 3 business day period; provided, however, that if any part of the Premises is reasonably useable for Tenant's normal business operations or if Tenant conducts all or any part of its operations in any portion of the Premises notwithstanding such Service Interruption, then the amount of each daily abatement of Base Rent shall only be proportionate to the nature and extent of the interruption of Tenant's normal operations or ability to use the Premises. The

rights granted to Tenant under this paragraph shall be Tenant's sole and exclusive remedy resulting from a failure of Landlord to provide services, and Landlord shall not otherwise be liable for any loss or damage suffered or sustained by Tenant resulting from any failure or cessation of services. For purposes hereof, the term "**Utility Service**" shall mean the following services: HVAC service, water, sewer and electricity, but in each case only to the extent that Landlord has an obligation to provide same to Tenant under this Lease.

(b) Landlord shall, as part of Operating Expenses, provide or cause to be provided with respect to the Common Areas only, refuse and trash collection and janitorial services. Tenant shall be responsible for contracting directly with a vendor reasonably acceptable to Landlord and paying for its own janitorial services for the Premises.

(c) Landlord's sole obligation for either providing emergency generators or providing emergency back-up power to Tenant shall be: (i) to provide emergency generators with not less than the capacity of the emergency generators located in the Building as of the Commencement Date, and (ii) to contract with a third party to maintain the emergency generators as per the manufacturer's standard maintenance guidelines. Except as otherwise provided in the immediately preceding sentence, Landlord shall have no obligation to provide Tenant with operational emergency generators or back-up power or to supervise, oversee or confirm that the third party maintaining the emergency generators is maintaining the generators as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the emergency generators when the emergency generators are not operational, including any delays thereto due to the inability to obtain parts or replacement equipment, Landlord shall have no obligation to provide Tenant with an alternative back-up generator or generators or alternative sources of back-up power. Tenant expressly acknowledges and agrees that Landlord does not guaranty that such emergency generators will be operational at all times or that emergency power will be available to the Premises when needed.

(d) **Energy Usage Data**. With respect to separately metered Utilities provided to the Premises that are paid for by Tenant directly to the Utility provider, if any, Tenant agrees to provide Landlord with access to Tenant's water and energy usage data on a monthly basis, by providing Tenant's applicable utility login credentials to Landlord's designated online portal. The costs and expenses incurred by Landlord in connection with receiving and analyzing such water and energy usage data (including, without limitation, as may be required pursuant to applicable Legal Requirements) shall be included as part of Operating Expenses.

12. **Alterations and Tenant's Property**.

(a) Any alterations, additions, or improvements made to the Premises by or on behalf of Tenant (other than the initial Tenant Improvements (as defined in the Work Letter), which shall be governed by the Work Letter), but excluding installation, removal or realignment of furniture systems (other than removal of furniture systems owned or paid for by Landlord) not involving any modifications to the structure or connections (other than by ordinary plugs or jacks) to Building Systems (as defined in Section 13) ("**Alterations**") shall be subject to Landlord's prior written consent, which may be given or withheld in Landlord's sole discretion if any such Alteration affects the Building structure or Building Systems and shall not be otherwise unreasonably withheld. Tenant may, subject to this terms of this Section 12, construct nonstructural, cosmetic Alterations in the Premises without Landlord's prior approval if the aggregate cost of all such work in any 12 month period does not exceed $150,000 (a "**Notice-Only Alteration**"), provided Tenant notifies Landlord in writing, which notice shall be delivered to Landlord not less than 15 business days in advance of any proposed construction, of such intended Notice-Only Alteration along with a description of the scope of such Notice-Only Alteration (and, if applicable, the plans and specifications for such Notice-Only Alteration) and a list of the identities and mailing addresses of all persons performing work or supplying materials. Landlord may impose such conditions on Tenant in connection with the commencement, performance and completion of Alterations, including Notice-Only Alterations, as Landlord may deem appropriate in Landlord's reasonable discretion. Any request for approval of an Alteration shall be in writing, delivered not less than 15 business days in advance of any proposed construction, and

accompanied by plans, specifications, bid proposals, work contracts and such other information concerning the nature and cost of the alterations as may be reasonably requested by Landlord, including the identities and mailing addresses of all persons performing work or supplying materials. Landlord's right to review plans and specifications and to monitor construction shall be solely for its own benefit, and Landlord shall have no duty to ensure that such plans and specifications or construction comply with applicable Legal Requirements. Tenant shall cause, at its sole cost and expense, all Alterations to comply with applicable insurance requirements and applicable Legal Requirements, and shall, subject to Section 7, implement at its sole cost and expense any alteration or modification required by Legal Requirements as a result of any Alterations. Tenant shall pay to Landlord, as Additional Rent, within 30 days after demand an amount equal to 2% of all charges incurred by Tenant or its contractors or agents in connection with any Alteration to cover Landlord's overhead and expenses for plan review, coordination, scheduling and supervision; provided, however that such fee shall not be payable in connection with Notice-Only Alterations. Before Tenant begins any Alteration, Landlord may post on and about the Premises notices of non-responsibility pursuant to applicable law. Tenant shall reimburse Landlord for, and indemnify and hold Landlord harmless from, any expense incurred by Landlord by reason of faulty work done by Tenant or its contractors, delays caused by such work, or inadequate cleanup.

(b) With respect to all Alterations, Tenant shall provide (and cause each contractor or subcontractor to provide) certificates of insurance for workers' compensation and other coverage in amounts and from an insurance company satisfactory to Landlord protecting Landlord against liability for personal injury or property damage during construction. Upon completion of any Alterations, Tenant shall deliver to Landlord: (i) sworn statements setting forth the names of all contractors and subcontractors who did the work and final lien waivers from all such contractors and subcontractors; and (ii) "as built" plans for any such Alteration if the nature of such Alterations is such that "as-built" plans are typically prepared.

(c) Other than (i) the items, if any, listed on **Exhibit F** attached hereto, (ii) any items agreed by Landlord in writing to be included on **Exhibit F** in the future, and (iii) any trade fixtures, machinery, equipment and other personal property not paid for all or in part by Landlord that may be removed without material damage to the Premises, which damage shall be repaired (including capping or terminating utility hook-ups behind walls) by Tenant during the Term (collectively, "**Tenant's Property**"), all Alterations, all fixtures, and all partitions, hardware, built-in machinery, built-in casework and cabinets and other similar additions, equipment, property and improvements built into the Premises so as to become an integral part of the Premises, including, without limitation, fume hoods which penetrate the roof or plenum area, built-in cold rooms, built-in warm rooms, walk-in cold rooms, walk-in warm rooms, clean rooms, deionized water systems, glass washing equipment, autoclaves, chillers, built-in plumbing, electrical and mechanical equipment and systems, and any power generator and transfer switch (collectively, "**Installations**") shall be and shall remain the property of Landlord during the Term and following the expiration or earlier termination of the Term, shall not be removed by Tenant at any time during the Term and shall remain upon and be surrendered with the Premises as a part thereof in accordance with Section 28 upon the expiration or earlier termination of this Lease. Notwithstanding the foregoing, Landlord may, at the time its approval of any such Installation is requested, or at the time it receives notice of a Notice-Only Alteration, notify Tenant that Landlord requires that Tenant remove such Installation upon the expiration or earlier termination of the Term, in which event Tenant shall remove such Installation in accordance with the immediately succeeding sentence. If Landlord so elects, Tenant shall remove such Installation upon the expiration or earlier termination of this Lease and restore any damage caused by or occasioned as a result of such removal, including, when removing any of Tenant's Property that was plumbed, wired or otherwise connected to any of the Building Systems, capping off all such connections behind the walls of the Premises and repairing any holes. During any restoration period beyond the expiration or earlier termination of the Term, Tenant shall pay Rent to Landlord as provided herein as if said space were otherwise occupied by Tenant. If Landlord is requested by Tenant or any lender, lessor or other person or entity claiming an interest in any of Tenant's Property to waive any lien Landlord may have against any of Tenant's Property, and Landlord consents to such waiver, then Landlord shall be entitled to reimbursement from Tenant for its actual, reasonable out-of-pocket costs incurred in connection with the preparation and negotiation of each such waiver of lien.

Notwithstanding anything to the contrary contained in this Lease, Tenant shall not be required to remove the Tenant Improvements constructed pursuant to the Work Letter at the expiration or earlier termination of the Term of this Lease nor shall Tenant have any right to remove any of the Tenant Improvements at any time.

13. **Landlord's Repairs**. Landlord shall, at Landlord's sole expense (and not as an Operating Expense), be responsible for capital repairs and replacements of the roof (not including the roof membrane), exterior walls and foundation of the Building ("**Structural Items**") unless the need for such repairs or replacements is caused by Tenant or any Tenant Parties, in which case Tenant shall bear the full cost to repair or replace such Structural Items. Landlord shall, as an Operating Expense, be responsible for the routine maintenance and repair of such Structural Items. Landlord, as an Operating Expense, shall maintain, repair and replace the roof membrane and all of the (a) all of the exterior, parking and other Common Areas of the Project, and (b) all Building systems serving both the Premises and other portions of the Project including, without limitation, HVAC, plumbing, fire sprinklers ("**Building Systems**"), in good repair, reasonable wear and tear and uninsured losses and damages caused by Tenant, or by any of Tenant's assignees, sublessees, licensees, agents, servants, employees, invitees and contractors (or any of Tenant's assignees, sublessees and/or licensees respective agents, servants, employees, invitees and contractors) (collectively, "**Tenant Parties**") excluded. Losses and damages caused by Tenant or any Tenant Party shall be repaired by Landlord, to the extent not covered by insurance, at Tenant's sole cost and expense. Landlord reserves the right to temporarily stop Building Systems services when necessary (i) by reason of accident or emergency, or (ii) for planned repairs, alterations or improvements, which are, in the judgment of Landlord, desirable or necessary to be made, until such repairs, alterations or improvements shall have been completed. Landlord shall have no responsibility or liability for failure to supply Building Systems services during any such period of interruption; provided, however, that Landlord shall, except in case of emergency, make a commercially reasonable effort to give Tenant 48 hours advance notice of any planned stoppage of Building Systems services for routine maintenance, repairs, alterations or improvements. Tenant shall promptly give Landlord written notice of any repair required by Landlord pursuant to this paragraph, after which Landlord shall make a commercially reasonable effort to effect such repair. Landlord shall use reasonable efforts to minimize interference with Tenant's operations in the Premises during any such planned stoppages of Building Systems. Landlord shall not be liable for any failure to make any repairs or to perform any maintenance unless such failure shall persist for an unreasonable time after Tenant's written notice of the need for such repairs or maintenance. Tenant waives its rights under any state or local law to terminate this Lease or, except as otherwise expressly provided in Section 31, to make such repairs at Landlord's expense and agrees that the parties' respective rights with respect to such matters shall be solely as set forth herein. Notwithstanding anything to the contrary contained herein, repairs required as the result of fire, earthquake, flood, vandalism, war, or similar cause of damage or destruction shall be controlled by Section 18. Notwithstanding anything to the contrary contained herein, Tenant shall have the self-help rights set forth in Section 31 hereof.

Notwithstanding anything to the contrary contained in this Lease, as of the Commencement Date, the maintenance and repair obligations for the Premises shall be allocated between Landlord and Tenant as set forth on **Exhibit G** attached hereto. The maintenance obligations allocated to Tenant pursuant to **Exhibit G** (the "**Tenant Maintenance Obligations**") shall be performed by Tenant at Tenant's sole cost and expense. The Tenant Maintenance Obligations shall include the procurement and maintenance of contracts including, without limitation, for in-suite tank refills, bulk tank refills, janitorial cleaning, access controls and security, in form and substance reasonably satisfactory to Landlord, with copies to Landlord upon Landlord's written request, for and with contractors reasonably acceptable to Landlord specializing and experienced in the respective Tenant Maintenance Obligations. Notwithstanding anything to the contrary contained herein, the scope of work of any such contracts entered into by Tenant pursuant to this paragraph shall, at a minimum, comply with manufacturer's recommended maintenance procedures for the optimal performance of the applicable equipment. Landlord shall, notwithstanding anything to the contrary contained in this Lease, have no obligation to perform any Tenant Maintenance Obligations. The Tenant Maintenance Obligations shall not include the right or obligation on the part of Tenant to make any structural and/or capital repairs or improvements to the Project, and Landlord shall, during any period that Tenant is

responsible for the Tenant Maintenance Obligations, continue, as part of Operating Expenses, to be responsible, as provided in the immediately preceding paragraph, for capital repairs and replacements required to be made to the Project. If Tenant fails to maintain any portion of the Premises for which Tenant is responsible as part of the Tenant Maintenance Obligations in a manner reasonably acceptable to Landlord within the requirements of this Lease, Landlord shall have the right, but not the obligation, to provide Tenant with written notice thereof and to assume the Tenant Maintenance Obligations if Tenant does not cure Tenant's failure within 15 days after receipt of such notice.

14. **Tenant's Repairs**. Subject to Section 13 hereof, Tenant, at its expense, shall repair, replace and maintain in good condition all portions of the Premises, including, without limitation, entries, interior doors, ceilings, interior windows, interior walls, the interior side of demising walls and any mechanical systems or equipment exclusively serving the Premises. Should Tenant fail to make any such repair or replacement or fail to maintain the Premises, Landlord shall give Tenant notice of such failure. If Tenant fails to commence cure of such failure within 10 business days of Landlord's notice, and thereafter diligently prosecute such cure to completion, Landlord may perform such work and shall be reimbursed by Tenant for the actual costs of such work within 30 days after demand therefor; provided, however, that if such failure by Tenant creates or could create an emergency (i.e., a circumstance which poses an imminent threat of harm to persons or substantial property damage), Landlord may immediately commence cure of such failure and shall thereafter be entitled to recover the actual costs of such cure from Tenant. Subject to Sections 17 and 18, Tenant shall bear the full uninsured cost of any repair or replacement to any part of the Project that results from damage caused by Tenant or any Tenant Party and any repair that benefits only the Premises.

15. **Mechanic's Liens**. Tenant shall fully discharge of record from title or from the public record, by bond or otherwise, any mechanic's lien filed against the Premises or against the Property or against the Project for work claimed to have been done for, or materials claimed to have been furnished to, Tenant within 15 days after Tenant receives notice of the filing thereof, at Tenant's sole cost and shall otherwise keep the Premises, the Property and the Project free from any liens arising out of work performed, materials furnished or obligations incurred by Tenant. Should Tenant fail to fully discharge of record any lien described herein, Landlord shall have the right, but not the obligation, to pay such claim or post a bond or otherwise provide security to eliminate the lien as a claim against title to the Property and/or Project and the costs incurred by Landlord in connection therewith shall be immediately due from Tenant as Additional Rent. If Tenant shall lease or finance the acquisition of office equipment, furnishings, or other personal property of a removable nature utilized by Tenant in the operation of Tenant's business, Tenant warrants that any Uniform Commercial Code Financing Statement filed as a matter of public record by any lessor or creditor of Tenant will upon its face or by exhibit thereto indicate that such Financing Statement is applicable only to removable personal property of Tenant located within the Premises. In no event shall the address of the Building, Property or Project be furnished on the statement without qualifying language as to applicability of the lien only to removable personal property, located in the suite number designated to the Premises in the Basic Lease Provisions.

16. **Indemnification**. Subject to the waiver of subrogation set forth in Section 17, Tenant hereby indemnifies and agrees to defend, save and hold Landlord, its officers, directors, employees, managers, members, partners, agents, sub-agents, constituent entities and lease signators (collectively, "**Landlord Indemnified Parties**") harmless from and against any and all demands, claims, liabilities, losses, costs, expenses, actions, causes of action, damages or judgments, and all reasonable expenses incurred in investigating or resisting the same (including, without limitation, reasonable attorneys' fees, charges and disbursements and costs of suit) (collectively, "**Claims**") for injury or death to persons or damage to property occurring within or about the Premises or the Project arising directly or indirectly out of the use or occupancy of the Premises or the Project by Tenant or any Tenant Parties (including, without limitation, any act, omission or neglect by Tenant or any Tenant's Parties in or about the Premises or at the Project) or a breach or default by Tenant in the performance of any of its obligations hereunder, except to the extent caused by the willful misconduct or negligence of Landlord Indemnified Parties. Landlord shall not be liable to Tenant for, and Tenant assumes all risk of damage to, personal property (including, without limitation, loss of records kept within the Premises). Tenant further waives any and all Claims for injury to Tenant's

business or loss of income relating to any such damage or destruction of personal property (including, without limitation, any loss of records). Landlord Indemnified Parties shall not be liable for any damages arising from any act, omission or neglect of any tenant in the Project or of any other third party or Tenant Parties.

Subject to all of the other provisions of this Lease including, without limitation, the waivers provided in Sections 17 and 36, Landlord hereby indemnifies and agrees to defend, save and hold Tenant harmless from and against any and all third party Claims for injury or death to persons or damage to property occurring at the Project (outside of the Premises) caused by Landlord's willful misconduct or negligence, except to the extent caused by the willful misconduct or negligence of Tenant or Tenant Parties.

The provisions of this Section 16 shall survive the expiration or earlier termination of the Lease.

17. **Insurance**. Landlord shall maintain all risk property and, if applicable, sprinkler damage insurance covering the full replacement cost of the Project (including the Tenant Improvements to the extent paid for by Landlord). Landlord shall further procure and maintain commercial general liability insurance with a single loss limit of not less than $2,000,000 for bodily injury and property damage with respect to the Project. Landlord may, but is not obligated to, maintain such other insurance and additional coverages as it may deem necessary. All such insurance shall be included as part of the Operating Expenses. The Building, Property or Project may be included in a blanket policy (in which case the cost of such insurance allocable to the Building, Property or Project will be determined by Landlord based upon the insurer's cost calculations).

Tenant, at its sole cost and expense, shall maintain during the Term: all risk property insurance with business interruption and extra expense coverage, covering the full replacement cost of all property and improvements installed or placed in the Premises by Tenant at Tenant's expense; workers' compensation insurance with no less than the minimum limits required by law; employer's liability insurance with employers liability limits of $1,000,000 bodily injury by accident – each accident, $1,000,000 bodily injury by disease – policy limit, and $1,000,000 bodily injury by disease – each employee; and commercial general liability insurance, with a minimum limit of not less than $2,000,000 per occurrence for bodily injury and property damage with respect to the Premises, which coverage amount may be satisfied through a combination of primary and umbrella policies. The commercial general liability insurance maintained by Tenant shall include Alexandria Real Estate Equities, Inc., and Landlord, its officers, directors, employees, managers, members, partners, agents, sub-agents, constituent entities and lease signators (collectively, "**Landlord Insured Parties**"), as additional insureds; insure on an occurrence and not a claims-made basis; be issued by insurance companies which have a rating of not less than policyholder rating of A- and financial category rating of at least Class VIII in "Best's Insurance Guide"; not contain a hostile fire exclusion; contain a contractual liability endorsement; and provide primary coverage to Landlord Insured Parties (any policy issued to Landlord Insured Parties providing duplicate or similar coverage shall be deemed excess over Tenant's policies, regardless of limits). Tenant shall (i) provide Landlord with 30 days advance written notice of cancellation of such commercial general liability policy, and (ii) request Tenant's insurer to endeavor to provide 30 days advance written notice to Landlord of cancellation of such commercial general liability policy (or 10 days in the event of a cancellation due to non-payment of premium). Certificates of insurance showing the limits of coverage required hereunder and showing the Landlord Insured Parties and Additional Insured Parties (as defined below) as an additional insureds, shall be delivered to Landlord by Tenant (i) concurrent with Tenant's delivery to Landlord of a copy of this Lease executed by Tenant, and (ii) prior to each renewal of said insurance. Tenant's policy may be a "blanket policy" with an aggregate per location endorsement which specifically provides that the amount of insurance shall not be prejudiced by other losses covered by the policy. Tenant shall, prior to the expiration of such policies, furnish Landlord with renewal certificates.

Tenant shall, in addition to the Landlord Insured Parties, include the following parties as additional insureds under Tenant's commercial general liability insurance (collectively, "**Additional Insured Parties**"): (i) any Holder of a Mortgage encumbering the Property or the Project or any portion thereof, (ii) the landlord under any lease wherein Landlord is tenant of the real property on which the Building, the Property or the

Project is located, if the interest of Landlord is or shall become that of a tenant under a ground or other underlying lease rather than that of a fee owner, and/or (iii) any management company retained by Landlord to manage the Project.

The property insurance obtained by Landlord and Tenant shall include a waiver of subrogation by the insurers and all rights based upon an assignment from its insured, against Landlord or Tenant, and their respective officers, directors, employees, managers, agents, invitees and contractors ("**Related Parties**"), in connection with any loss or damage thereby insured against. Notwithstanding anything to the contrary contained in this Lease, neither party nor its respective Related Parties shall be liable to the other for loss or damage caused by any risk insured against under property insurance required to be maintained hereunder, and each party waives any claims against the other party, and its respective Related Parties, for such loss or damage. The failure of a party to insure its property shall not void this waiver. Landlord and its respective Related Parties shall not be liable for, and Tenant hereby waives all claims against such parties for, business interruption and losses occasioned thereby sustained by Tenant or any person claiming through Tenant resulting from any accident or occurrence in or upon the Premises, the Property or the Project from any cause whatsoever. If the foregoing waivers shall contravene any law with respect to exculpatory agreements, the liability of Landlord or Tenant shall be deemed not released but shall be secondary to the other's insurer.

Landlord may require insurance policy limits to be raised to conform with requirements of any Holder of a Mortgage encumbering the Project or any portion thereof and/or to bring coverage limits to levels then being generally required of new tenants within the Project; provided, however, that the increased amount of coverage is consistent with coverage amounts then being required by institutional owners of similar projects with tenants occupying similar size premises in the geographical area in which the Project is located.

18. **Restoration**. If, at any time during the Term, the Project or the Premises are damaged or destroyed by a fire or other casualty, Landlord shall notify Tenant within 60 days after discovery of such damage as to the amount of time Landlord reasonably estimates it will take to restore the Project or the Premises, as applicable (the "**Restoration Period**"). If the Restoration Period is estimated to exceed 12 months following the date of discovery of the casualty (the "**Maximum Restoration Period**"), Landlord may, in such notice, elect to terminate this Lease as of the date that is 75 days after the date of discovery of such damage or destruction; provided, however, that notwithstanding Landlord's election to restore, Tenant may elect to terminate this Lease by written notice from Tenant to Landlord delivered within 10 business days of receipt of a notice from Landlord estimating a Restoration Period for the Premises longer than the Maximum Restoration Period. Unless either Landlord or Tenant so elects to terminate this Lease, Landlord shall, subject to receipt of sufficient insurance proceeds (with any deductible to be treated as a current Operating Expense), promptly restore the Premises (excluding the improvements installed by Tenant or by Landlord and paid for by Tenant), subject to delays arising from the collection of insurance proceeds, from Force Majeure events or as needed to obtain any license, clearance or other authorization of any kind required to enter into and restore the Premises issued by any Governmental Authority having jurisdiction over the use, storage, handling, treatment, generation, release, disposal, removal or remediation of Hazardous Materials (as defined in Section 30) in, on or about the Premises (collectively referred to herein as "**Hazardous Materials Clearances**"); provided, however, that if repair or restoration of the Premises is not substantially complete and access to the Premises as of the end of the Maximum Restoration Period or, if longer, the Restoration Period, Landlord may, in its sole and absolute discretion, elect not to proceed with such repair and restoration, or Tenant may by written notice from Tenant to Landlord delivered within 5 business days of the expiration of the Maximum Restoration Period or, if longer, the Restoration Period, elect to terminate this Lease, in which event Landlord shall be relieved of its obligation to make such repairs or restoration and this Lease shall terminate as of the date that is 75 days after the later of: (i) discovery of such damage or destruction, or (ii) the date all required Hazardous Materials Clearances are obtained, but Landlord shall retain any Rent paid and the right to any Rent payable by Tenant prior to such election by Landlord or Tenant, subject to abatement as expressly set forth in the immediately following paragraph.

Promptly following the date that Landlord makes the Premises available to Tenant for Tenant's repairs and/or restoration, Tenant shall, at Tenant's expense, promptly perform, subject to delays arising from the collection of insurance proceeds, from Force Majeure events or to obtain Hazardous Materials Clearances, all repairs or restoration (which restoration shall be performed as an Alteration in accordance with Section 12) not required to be done by Landlord and shall promptly re-enter the Premises and commence doing business in accordance with this Lease. Notwithstanding the foregoing, either Landlord or Tenant may terminate this Lease upon written notice to the other if the Premises are damaged during the last year of the Term and Landlord reasonably estimates that it will take more than 2 months to repair such damage; provided, however, that such notice is delivered within 10 business days after the date that Landlord provides Tenant with written notice of the estimated Restoration Period. Notwithstanding anything to the contrary contained herein, Landlord shall also have the right to terminate this Lease if insurance proceeds (excluding deductible amounts) are not available for such restoration. Base Rent and Operating Expenses shall be abated from the date all required Hazardous Materials Clearances are obtained until the Premises are repaired and restored, in the proportion that the area of the Premises, if any, that is not usable by Tenant bears to the total area of the Premises, unless Landlord provides Tenant with other space during the period of repair that is suitable for the temporary conduct of Tenant's business. Such abatement shall be the sole remedy of Tenant, and except as provided in this Section 18, Tenant waives any right to terminate this Lease by reason of damage or casualty loss.

The provisions of this Lease, including this Section 18, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, or any other portion of the Property or Project, and any statute or regulation that is now or may hereafter be in effect shall have no application to this Lease or any damage or destruction to all or any part of the Premises or any other portion of the Property or the Project, the parties hereto expressly agreeing that this Section 18 sets forth their entire understanding and agreement with respect to such matters.

19. **Condemnation**. If the whole or any material part of the Premises, the Building, the Property or the Project is taken for any public or quasi-public use under governmental law, ordinance, or regulation, or by right of eminent domain, or by private purchase in lieu thereof (a "**Taking**" or "**Taken**"), and the Taking would either prevent or materially interfere with Tenant's use of the Premises or materially interfere with or impair Landlord's ownership or operation of the Project, then upon written notice by Landlord or Tenant to the other this Lease shall terminate and Rent shall be apportioned as of such date. If part of the Premises shall be Taken, and this Lease is not terminated as provided above, Landlord shall promptly restore the Premises and the Project as nearly as is commercially reasonable under the circumstances to their condition prior to such partial Taking and the rentable square footage of the Building, the rentable square footage of the Premises, Tenant's Share of Operating Expenses and the Rent payable hereunder during the unexpired Term shall be reduced to such extent as may be fair and reasonable under the circumstances. Upon any such Taking, Landlord shall be entitled to receive the entire price or award from any such Taking without any payment to Tenant, and Tenant hereby assigns to Landlord Tenant's interest, if any, in such award. Tenant shall have the right, to the extent that same shall not diminish Landlord's award, to make a separate claim against the condemning authority (but not Landlord) for such compensation as may be separately awarded or recoverable by Tenant for moving expenses and damage to Tenant's trade fixtures, if a separate award for such items is made to Tenant. Tenant hereby waives any and all rights it might otherwise have pursuant to any provision of state law to terminate this Lease upon a partial Taking of the Premises, the Building, the Property or the Project.

20. **Events of Default**. Each of the following events shall be a default ("**Default**") by Tenant under this Lease:

(a) **Payment Defaults**. Tenant shall fail to pay any installment of Rent or any other payment hereunder when due; provided, however, that Landlord will give Tenant notice and an opportunity to cure any failure to pay Rent within 5 business days of any such notice not more than once in any 12 month period and Tenant agrees that such notice shall be in lieu of and not in addition to, or shall be deemed to be, any notice required by law.

(b) **Insurance**. Any insurance required to be maintained by Tenant pursuant to this Lease shall be canceled or terminated or shall expire or shall be reduced or materially changed, or Landlord shall receive a notice of nonrenewal of any such insurance and Tenant shall fail to obtain replacement insurance at least 5 business days before the expiration of the current coverage.

(c) **Abandonment**. Tenant shall abandon the Premises. Tenant shall not be deemed to have abandoned the Premises if Tenant provides Landlord with reasonable advance notice prior to vacating and, at the time of vacating the Premises, (i) Tenant completes Tenant's obligations under the Decommissioning and HazMat Closure Plan in compliance with Section 28, (ii) Tenant has obtained the release of the Premises of all Hazardous Materials Clearances and the Premises are free from any residual impact from the Tenant HazMat Operations and provides reasonably detailed documentation to Landlord confirming such matters, (iii) Tenant has made reasonable arrangements with Landlord for the security of the Premises for the balance of the Term, and (iv) Tenant continues during the balance of the Term to satisfy and perform all of Tenant's obligations under this Lease as they come due**.**

(d) **Improper Transfer**. Tenant shall assign, sublease or otherwise transfer all or any portion of Tenant's interest in this Lease or the Premises except as expressly permitted herein, or Tenant's interest in this Lease shall be attached, executed upon, or otherwise judicially seized and such action is not released within 90 days of the action.

(e) **Liens**. Tenant shall fail to fully discharge or record or otherwise obtain the release of any lien placed upon the Premises in violation of this Lease within 15 days after Tenant received notice that any such lien is filed against the Premises.

(f) **Insolvency Events**. Tenant or any guarantor or surety of Tenant's obligations hereunder shall: (A) make a general assignment for the benefit of creditors; (B) commence any case, proceeding or other action seeking to have an order for relief entered on its behalf as a debtor or to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, liquidation, dissolution or composition of it or its debts or seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or of any substantial part of its property (collectively a "**Proceeding for Relief**"); (C) become the subject of any Proceeding for Relief that is not dismissed within 90 days of its filing or entry; or (D) die or suffer a legal disability (if Tenant, guarantor, or surety is an individual) or be dissolved or otherwise fail to maintain its legal existence (if Tenant, guarantor or surety is a corporation, partnership or other entity).

(g) **Estoppel Certificate or Subordination Agreement**. Tenant fails to execute any document required from Tenant under Sections 23 or 27 within 5 business days after a second notice requesting such document.

(h) **Financial Information**. Tenant fails to provide any financial information required to be delivered by Tenant to Landlord pursuant to Section 44(c) following written request from Landlord, within 5 business days after a second notice requesting such financial information.

(i) **Other Defaults**. Tenant shall fail to comply with any provision of this Lease other than those specifically referred to in this Section 20, and, except as otherwise expressly provided herein, such failure shall continue for a period of 30 days after written notice thereof from Landlord to Tenant. Any notice given under Section 20(i) hereof shall: (i) specify the alleged default, (ii) demand that Tenant cure such default, (iii) be in lieu of, and not in addition to, or shall be deemed to be, any notice required under any provision of applicable law, and (iv) not be deemed a forfeiture or a termination of this Lease unless Landlord elects otherwise in such notice. Notwithstanding the foregoing, if the nature of Tenant's default pursuant to Section 20(i) is such that it cannot be cured by the payment of funds, does not affect the safety, security or integrity of the Building or Building Systems or affect other occupants of the Project and reasonably requires more than 30 days to cure, then Tenant shall not be deemed to be in default if Tenant commences such cure within said 30 day period and thereafter diligently prosecutes the same to completion; provided, however, that such cure shall be completed no later than 90 days from the date of Landlord's notice.

21. **Landlord's Remedies**.

(a) **Payment By Landlord; Interest**. Upon a Default by Tenant hereunder, Landlord may, without waiving or releasing any obligation of Tenant hereunder, make such payment or perform such act. All sums so paid or incurred by Landlord, together with interest thereon, from the date such sums were paid or incurred, at the annual rate equal to 12% per annum or the highest rate permitted by law (the "**Default Rate**"), whichever is less, shall be payable to Landlord on demand as Additional Rent. Nothing herein shall be construed to create or impose a duty on Landlord to mitigate any damages resulting from Tenant's Default hereunder.

(b) **Late Payment Rent**. Late payment by Tenant to Landlord of Rent and other sums due will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult and impracticable to ascertain. Such costs include, but are not limited to, processing and accounting charges and late charges that may be imposed on Landlord under any Mortgage covering the Premises. Therefore, if any installment of Rent due from Tenant is not received by Landlord within 5 days after the date such payment is due, Tenant shall pay to Landlord an additional sum equal to 6% of the overdue Rent as a late charge. Notwithstanding the foregoing, before assessing a late charge the first time in any calendar year, Landlord shall provide Tenant written notice of the delinquency and will waive the right if Tenant pays such delinquency within 5 days thereafter. The parties agree that this late charge represents a fair and reasonable estimate of the costs Landlord will incur by reason of late payment by Tenant. In addition to the late charge, Rent not paid when due shall bear interest at the Default Rate from the 5th day after the date due until paid.

(c) **Remedies**. Upon the occurrence of a Default, Landlord, at its option, without further notice or demand to Tenant, shall have in addition to all other rights and remedies provided in this Lease, at law or in equity, the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

(i) Terminate this Lease, or at Landlord's option, Tenant's right to possession only, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy that it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor;

(ii) Upon any termination of this Lease, whether pursuant to the foregoing Section 21(c)(i) or otherwise, Landlord may recover from Tenant the following:

(A) The worth at the time of award of any unpaid rent that has been earned at the time of such termination; plus

(B) The worth at the time of award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(C) The worth at the time of award of the amount by which the unpaid rent for the balance of the Term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(D) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or that in the ordinary course of things would be likely to result therefrom, specifically including, but not limited to, brokerage commissions and advertising expenses incurred, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(E) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by applicable law.

The term "**rent**" as used in this Section 21 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others. As used in Sections 21(c)(ii)(A) and (B), above, the "**worth at the time of award**" shall be computed by allowing interest at the Default Rate. As used in Section 21(c)(ii)(C) above, the "**worth at the time of award**" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus 1%.

(iii) Landlord may continue this Lease in effect after Tenant's Default and recover rent as it becomes due (Landlord and Tenant hereby agreeing that Tenant has the right to sublet or assign hereunder, subject only to the terms of Section 22). Accordingly, if Landlord does not elect to terminate this Lease following a Default by Tenant, Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies hereunder, including the right to recover all Rent as it becomes due.

(iv) Whether or not Landlord elects to terminate this Lease following a Default by Tenant, Landlord shall have the right to terminate any and all subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises or may, in Landlord's sole discretion, succeed to Tenant's interest in such subleases, licenses, concessions or arrangements. Upon Landlord's election to succeed to Tenant's interest in any such subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

(v) Independent of the exercise of any other remedy of Landlord hereunder or under applicable law, Landlord may conduct an environmental test of the Premises as generally described in Section 30(d) hereof, at Tenant's expense.

(vi) Landlord shall have the right to suspend the performance of Landlord's Work (and each day of such suspension shall constitute a Tenant Delay).

(d) **Effect of Exercise**. Exercise by Landlord of any remedies hereunder or otherwise available shall not be deemed to be an acceptance of surrender of the Premises and/or a termination of this Lease by Landlord, it being understood that such surrender and/or termination can be effected only by the express written agreement of Landlord and Tenant. Any law, usage, or custom to the contrary notwithstanding, Landlord shall have the right at all times to enforce the provisions of this Lease in strict accordance with the terms hereof; and the failure of Landlord at any time to enforce its rights under this Lease strictly in accordance with same shall not be construed as having created a custom in any way or manner contrary to the specific terms, provisions, and covenants of this Lease or as having modified the same and shall not be deemed a waiver of Landlord's right to enforce one or more of its rights in connection with any subsequent default. A receipt by Landlord of Rent or other payment with knowledge of the breach of any covenant hereof shall not be deemed a waiver of such breach, and no waiver by Landlord of any provision of this Lease shall be deemed to have been made unless expressed in writing and signed by Landlord. To the greatest extent permitted by law, Tenant waives the service of notice of Landlord's intention to re-enter, re-take or otherwise obtain possession of the Premises as provided in any statute, or to institute legal proceedings to that end, and also waives all right of redemption in case Tenant shall be dispossessed by a judgment or by warrant of any court or judge. Any reletting of the Premises or any portion thereof shall be on such terms and conditions as Landlord in its sole discretion may determine. Landlord shall not be liable for, nor shall Tenant's obligations hereunder be diminished because of, Landlord's failure to relet the Premises or collect rent due in respect of such reletting or otherwise to mitigate any damages arising by reason of Tenant's Default.

Notwithstanding any contrary provision of this Lease, neither party shall be liable to the other party for any consequential damages arising under this Lease; provided that this sentence shall not apply to Landlord's damages (x) as expressly provided for in Section 8, and/or (y) in connection with Tenant's obligations as more fully set forth in Section 30. In no event shall the foregoing limit the damages to which Landlord is entitled under this Section 21(c)(ii)(A)-(D).

22. **Assignment and Subletting**.

(a) **General Prohibition**. Without Landlord's prior written consent (which consent shall not be unreasonably withheld, conditioned or delayed) subject to and on the conditions described in this Section 22 (including, without limitation, Section 22(b)), Tenant shall not, directly or indirectly, voluntarily or by operation of law, assign this Lease or sublease the Premises or any part thereof or mortgage, pledge, or hypothecate its leasehold interest or grant any concession or license within the Premises, and any attempt to do any of the foregoing shall be void and of no effect. If Tenant is a corporation, partnership or limited liability company, the shares or other ownership interests thereof that are not actively traded upon a stock exchange or in the over-the-counter market, a transfer or series of transfers whereby 49% or more of the issued and outstanding shares or other ownership interests of such corporation are, or voting control is, transferred (but excepting transfers upon deaths of individual owners) from a person or persons or entity or entities that were owners thereof as of the Effective Date to persons or entities who were not owners of shares or other ownership interests of the corporation, partnership or limited liability company as of the Effective Date, shall be deemed an assignment of this Lease requiring the consent of Landlord as provided in this Section 22. Notwithstanding the foregoing, Tenant shall have the right to obtain financing from institutional investors (including venture capital funding and corporate partners) or undergo a public offering which results in a change in control of Tenant without such change of control constituting an assignment under this Section 22 requiring Landlord consent, provided that (i) Tenant notifies Landlord in writing of the financing at least 5 business days prior to the closing of the financing, and (ii) provided that in no event shall such financing result in a change in use of the Premises from the use contemplated by Tenant at the commencement of the Term.

(b) **Permitted Transfers**. If Tenant desires to assign, sublease, hypothecate or otherwise transfer this Lease or sublet the Premises other than pursuant to a Permitted Assignment (as defined below), then at least 15 business days, but not more than 60 business days, before the date Tenant desires the assignment or sublease to be effective (the "**Assignment Date**"), Tenant shall give Landlord a notice (the "**Assignment Notice**") containing such information about the proposed assignee or sublessee, including the proposed use of the Premises and any Hazardous Materials proposed to be used, stored handled, treated, generated in or released or disposed of from the Premises, the Assignment Date, any relationship between Tenant and the proposed assignee or sublessee, and all material terms and conditions of the proposed assignment or sublease, including a copy of any proposed assignment or sublease in its final form, and such other information as Landlord may deem reasonably necessary or appropriate to its consideration whether to grant its consent. Landlord may, by giving written notice to Tenant within 15 business days after receipt of the Assignment Notice: (i) grant such consent (provided that Landlord shall further have the right to reasonably review and approve or disapprove the proposed form of sublease prior to the effective date of any such subletting), (ii) if the assignment or subletting is for all or substantially all of the Premises for substantially the remainder of the Term, refuse such consent, in its reasonable discretion; or (iii) with respect to any assignment, or with respect to any sublease that would result in more 50% of the Premises being subleased for all or substantially all of the remainder of the Term, terminate this Lease with respect to the space described in the Assignment Notice as of the Assignment Date (an "**Assignment Termination**"). Among other reasons, it shall be reasonable for Landlord to withhold its consent in any of these instances: (1) the proposed assignee or subtenant is a governmental agency; (2) in Landlord's reasonable judgment, the use of the Premises by the proposed assignee or subtenant would entail any alterations that would materially lessen the value of the leasehold improvements in the Premises, or would require materially increased services by Landlord; (3) in Landlord's reasonable judgment, the proposed assignee or subtenant is engaged in areas of scientific research or other business concerns that are controversial such that they may (i) attract or cause negative publicity for or about the Building or the

Project, (ii) negatively affect the reputation of the Building, the Project or Landlord, (iii) attract protestors to the Building or the Project, or (iv) lessen the attractiveness of the Building or the Project to any tenants or prospective tenants, purchasers or lenders; (4) in Landlord's reasonable judgment, the proposed assignee or subtenant lacks the creditworthiness to support the financial obligations it will incur under the proposed assignment or sublease; (5) in Landlord's reasonable judgment, the character, reputation, or business of the proposed assignee or subtenant is inconsistent with the desired tenant-mix or the quality of other tenancies in the Project or is inconsistent with the type and quality of the nature of the Building; (6) intentionally omitted; (7) Landlord or an affiliate of Landlord has experienced previous defaults by or is in litigation with the proposed assignee or subtenant; (8) the use of the Premises by the proposed assignee or subtenant will violate any applicable Legal Requirement; (9) the proposed assignee or subtenant is then an occupant of the Project and Landlord has comparable space available in the Project to meet such assignee or subtenant's needs; (10) the proposed assignee or subtenant is an entity with whom Landlord is then currently negotiating to lease space in the Project and Landlord has comparable space available in the Project to meet such assignee or subtenant's needs; or (11) the assignment or sublease is prohibited by the Holder of a Mortgage encumbering all or a portion of the Property. If Landlord delivers notice of its election to exercise an Assignment Termination, Tenant shall have the right to withdraw such Assignment Notice by written notice to Landlord of such election within 5 business days after Landlord's notice electing to exercise the Assignment Termination. If Tenant withdraws such Assignment Notice, this Lease shall continue in full force and effect. If Tenant does not withdraw such Assignment Notice, this Lease, and the term and estate herein granted, shall terminate as of the Assignment Date with respect to the space described in such Assignment Notice. No failure of Landlord to exercise any such option to terminate this Lease, or to deliver a timely notice in response to the Assignment Notice, shall be deemed to be Landlord's consent to the proposed assignment, sublease or other transfer. Other than in connection with a Permitted Assignment, Tenant shall pay to Landlord a fee equal to Two Thousand Five Hundred Dollars ($2,500) in connection with its consideration of any Assignment Notice and/or its preparation or review of any consent documents. Notwithstanding the foregoing, Landlord's consent to an assignment of this Lease or a subletting of any portion of the Premises to any entity controlling, controlled by or under common control with Tenant (a "**Control Permitted Assignment**") shall not be required, provided that Tenant and any assignee or sublessee shall execute a reasonable form of acknowledgment of assignment or sublease, as applicable, acceptable to Landlord on or before the effective date of the Control Permitted Assignment.

In addition, Tenant shall have the right to assign this Lease, upon 30 days prior written notice to Landlord ((x) unless Tenant is prohibited from providing such notice by applicable Legal Requirements in which case Tenant shall notify Landlord within 5 business days thereafter, and (y) if the transaction is subject to confidentiality requirements, Tenant's advance notification shall be subject to Landlord's execution of a non-disclosure agreement reasonably acceptable to Landlord and Tenant) but without obtaining Landlord's prior written consent, to a corporation or other entity which is a successor-in-interest to Tenant, by way of merger, consolidation or corporate reorganization, or by the purchase of all or substantially all of the assets or the ownership interests of Tenant provided that (i) such merger or consolidation, or such acquisition or assumption, as the case may be, is for a good business purpose and not principally for the purpose of transferring this Lease, and (ii) the net worth (as determined in accordance with generally accepted accounting principles ("**GAAP**")) of the assignee is not less than the net worth (as determined in accordance with GAAP) of Tenant as of the date of Tenant's most current quarterly or annual financial statements, and (iii) if the then-current Tenant is not the surviving entity, then on or before the effective date of the Corporate Permitted Assignment, such assignee shall execute a reasonable form of acknowledgment of assignment reasonably acceptable to Landlord pursuant to which, among other things, such assignee shall agree in writing to assume all of the terms, covenants and conditions of this Lease, and the assignee shall deliver a certificate of insurance to Landlord satisfying the Tenant's insurance requirements under Section 17 (a "**Corporate Permitted Assignment**"). Control Permitted Assignments and Corporate Permitted Assignments are hereinafter referred to as "**Permitted Assignments**." Notwithstanding anything to the contrary contained in this Lease or in the Work Letter, in no event shall Landlord be required to agree to any Changes (as such term is defined in the Work Letter) to Landlord's Work in connection with any assignment or sublease, including any Permitted Assignment.

(c) **Additional Conditions**. As a condition to any such assignment or subletting, whether or not Landlord's consent is required, Landlord may require:

(i) that any assignee or subtenant agree, in writing at the time of such assignment or subletting, that if Landlord gives such party notice that Tenant is in default under this Lease, such party shall thereafter make all payments otherwise due Tenant directly to Landlord, which payments will be received by Landlord without any liability except to credit such payment against those due under this Lease, and any such third party shall agree to attorn to Landlord or its successors and assigns should this Lease be terminated for any reason; provided, however, in no event shall Landlord or its successors or assigns be obligated to accept such attornment; and

(ii) A list of Hazardous Materials, certified by the proposed assignee or sublessee to be true and correct, which the proposed assignee or sublessee intends to use, store, handle, treat, generate in or release or dispose of from the Premises, together with copies of all documents relating to such use, storage, handling, treatment, generation, release or disposal of Hazardous Materials by the proposed assignee or subtenant in the Premises or on the Project, prior to the proposed assignment or subletting, including, without limitation: permits; approvals; reports and correspondence; storage and management plans; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); and all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks. Neither Tenant nor any such proposed assignee or subtenant is required, however, to provide Landlord with any portion(s) of the such documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities.

(d) **No Release of Tenant, Sharing of Excess Rents**. Notwithstanding any assignment or subletting, Tenant and any guarantor or surety of Tenant's obligations under this Lease shall at all times remain fully and primarily responsible and liable for the payment of Rent and for compliance with all of Tenant's other obligations under this Lease. Other than in connection with a Permitted Assignment, if the rent due and payable by a sublessee or assignee (or a combination of the rental payable under such sublease or assignment plus any bonus or other consideration therefor or incident thereto in any form) exceeds the sum of the Base Rent and Operating Expenses payable under this Lease with respect to the applicable portion of the Premises (excluding however, any Rent payable under this Section) and actual and reasonable and customary brokerage fees, legal costs, market inducements, improvement allowances, any design or construction fees and other reasonable and customary concessions (collectively, the "**Sublease/Assignment Costs**") directly related to and required pursuant to the terms of any such sublease or assignment ("**Excess Rents**"), then Tenant shall be bound and obligated to pay Landlord as Additional Rent hereunder 50% of such Excess Rent within 10 business days following receipt thereof by Tenant. For the purpose of calculating Excess Rents, the Sublease/Assignment Costs shall be amortized on a straight-lined basis over the term of the applicable sublease or assignment. If Tenant shall sublet the Premises or any part thereof, Tenant hereby immediately and irrevocably assigns to Landlord, as security for Tenant's obligations under this Lease, all rent from any such subletting, and Landlord or a receiver for Tenant appointed on Landlord's application, may collect such rent and apply it toward Tenant's obligations under this Lease; except that, until the occurrence of a Default, Tenant shall have the right to collect such rent.

(e) **No Waiver**. The consent by Landlord to an assignment or subletting shall not relieve Tenant or any assignees of this Lease or any sublessees of the Premises from obtaining the consent of Landlord to any further assignment or subletting nor shall it release Tenant or any assignee or sublessee of Tenant from full and primary liability under this Lease. The acceptance of Rent hereunder, or the acceptance of performance of any other term, covenant, or condition thereof, from any other person or entity shall not be deemed to be a waiver of any of the provisions of this Lease or a consent to any subletting, assignment or other transfer of the Premises.

(f) **Prior Conduct of Proposed Transferee**. Notwithstanding any other provision of this Section 22, if (i) the proposed assignee or sublessee of Tenant has been required by any prior landlord, lender or Governmental Authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question, (ii) the proposed assignee or sublessee is subject to an enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority), or (iii) because of the existence of a pre-existing environmental condition in the vicinity of or underlying the Project, the risk that Landlord would be targeted as a responsible party in connection with the remediation of such pre-existing environmental condition would be materially increased or exacerbated by the proposed use of Hazardous Materials by such proposed assignee or sublessee, Landlord shall have the absolute right to refuse to consent to any assignment or subletting to any such party.

23. **Estoppel Certificate**. Tenant shall, within 10 business days of written notice from Landlord, execute, acknowledge and deliver a statement in writing in any form reasonably requested by a proposed lender or purchaser, (i) certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying that this Lease as so modified is in full force and effect) and the dates to which the rental and other charges are paid in advance, if any, (ii) acknowledging that there are not, to Tenant's actual knowledge, any uncured defaults on the part of Landlord hereunder, or specifying such defaults if any are claimed, and (iii) setting forth such further factual information with respect to the status of this Lease or the Premises as may be reasonably requested thereon. Any such statement may be relied upon by any prospective purchaser or encumbrancer of all or any portion of the real property of which the Premises are a part. Tenant's failure to deliver such statement within 5 days after Tenant's receipt of a second written request for such certificate from Landlord shall be conclusive upon Tenant that this Lease is in full force and effect and without modification except as may be represented by Landlord in any certificate prepared by Landlord and delivered to Tenant for execution.

24. **Quiet Enjoyment**. So long as Tenant is not in Default under this Lease, Tenant shall, subject to the terms of this Lease, at all times during the Term, have peaceful and quiet enjoyment of the Premises against any person claiming by, through or under Landlord.

25. **Prorations**. All prorations required or permitted to be made hereunder shall be made on the basis of a 360 day year and 30 day months.

26. **Rules and Regulations**. Tenant shall, at all times during the Term and any extension thereof, comply with all reasonable rules and regulations at any time or from time to time established by Landlord covering use of the Premises and the Project. Such rules and regulations may include, without limitation, rules and regulations relating to the use of the Project Amenities and/or rules and regulations which are intended to encourage social distancing, promote and protect health and physical well-being within the Building and the Project and/or intended to limit the spread of communicable diseases and/or viruses of any kind or nature that are more virulent than the seasonal flu (collectively, "**Infectious Conditions**"). The current rules and regulations are attached hereto as **Exhibit E**. If there is any conflict between such rules and regulations and other provisions of this Lease, the terms and provisions of this Lease shall control. Landlord shall not have any liability or obligation for the breach of any rules or regulations by other tenants in the Project and shall not enforce such rules and regulations in a discriminatory manner.

27. **Subordination**. This Lease and Tenant's interest and rights hereunder are hereby made and shall be subject and subordinate at all times to the lien of any Mortgage now existing or hereafter created on or against the Property or the Premises, and all amendments, restatements, renewals, modifications, consolidations, refinancing, assignments and extensions thereof, without the necessity of any further instrument or act on the part of Tenant; provided, however that so long as there is no Default hereunder, Tenant's right to possession of the Premises shall not be disturbed (including Tenant's right to quiet enjoyment as set forth in Section 24) by the Holder of any such Mortgage. Tenant agrees, at the election of the Holder of any such Mortgage, to attorn to any such Holder. Tenant agrees upon demand to execute,

acknowledge and deliver such instruments, confirming such subordination, and such instruments of attornment as shall be requested by any such Holder, provided any such instruments contain appropriate non-disturbance provisions assuring Tenant's quiet enjoyment of the Premises as set forth in Section 24 hereof. Notwithstanding the foregoing, any such Holder may at any time subordinate its Mortgage to this Lease, without Tenant's consent, by notice in writing to Tenant, and thereupon this Lease shall be deemed prior to such Mortgage without regard to their respective dates of execution, delivery or recording and in that event such Holder shall have the same rights with respect to this Lease as though this Lease had been executed prior to the execution, delivery and recording of such Mortgage and had been assigned to such Holder. The term "**Mortgage**" whenever used in this Lease shall be deemed to include deeds of trust, security assignments and any other encumbrances, and any reference to the "**Holder**" of a Mortgage shall be deemed to include the beneficiary under a deed of trust.

As of the Effective Date, there is no existing Mortgage encumbering the Project. Upon written request from Tenant, Landlord agrees to use reasonable efforts to cause the Holder of any future Mortgage to enter into a subordination, non-disturbance and attornment agreement ("**SNDA**") with Tenant with respect to this Lease. The SNDA shall be on the Holder's form and Tenant shall pay as Additional Rent the Holder's fees and costs in connection with obtaining such SNDA; provided, however, that Landlord shall request that Holder make any reasonable changes to the SNDA requested by Tenant. Landlord's failure to cause the Holder to enter into the SNDA with Tenant (or make any of the changes requested by Tenant) despite such efforts shall not be a default by Landlord under this Lease.

28. **Surrender**. Upon the expiration of the Term or earlier termination of Tenant's right of possession, Tenant shall surrender the Premises to Landlord in broom clean condition (a) in the same condition as received (except for any Alterations or Installations permitted by Landlord to remain in the Premises pursuant to Section 12), subject to ordinary wear and tear and casualty loss and condemnation covered by Sections 18 and 19, (b) with all wires, cables or similar equipment which Tenant has installed in the Premises or in the risers or plenums of the Building removed, (c) free of Hazardous Materials brought upon, kept, used, stored, handled, treated, generated in, or released or disposed of from, the Premises by any person other than Landlord or any of Landlord's employees, agents and contractors (collectively, "**Tenant HazMat Operations**"), and (d) released of all Hazardous Materials Clearances. At least 3 months prior to the surrender of the Premises or such earlier date as Tenant may elect to cease operations at the Premises, Tenant shall deliver to Landlord a narrative description of the actions proposed (or required by any Governmental Authority) to be taken by Tenant in order to surrender the Premises (including any Installations permitted by Landlord to remain in the Premises) at the expiration or earlier termination of the Term, free from any residual impact from the Tenant HazMat Operations and otherwise released for unrestricted use and occupancy (the "**Decommissioning and HazMat Closure Plan**"). Such Decommissioning and HazMat Closure Plan shall be accompanied by a current listing of (i) all Hazardous Materials licenses and permits held by or on behalf of any Tenant Party with respect to the Premises, and (ii) all Hazardous Materials used, stored, handled, treated, generated, released or disposed of from the Premises, and shall be subject to the review and reasonable approval of Landlord's environmental consultant. In connection with the review and reasonable approval of the Decommissioning and HazMat Closure Plan, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such additional non-proprietary information concerning Tenant HazMat Operations as Landlord shall request. On or before such surrender, Tenant shall deliver to Landlord evidence that the approved Decommissioning and HazMat Closure Plan shall have been satisfactorily completed and Landlord shall have the right to cause Landlord's environmental consultant to inspect the Premises and perform such additional procedures as may be deemed reasonably necessary to confirm that the Premises are, as of the effective date of such surrender or early termination of this Lease, free from any residual impact from Tenant HazMat Operations. Tenant shall reimburse Landlord, as Additional Rent, for the actual out-of-pocket expense incurred by Landlord for Landlord's environmental consultant to review and approve the Decommissioning and HazMat Closure Plan and to visit the Premises and verify satisfactory completion of the same, which cost shall not exceed $5,000. Landlord shall have the unrestricted right to deliver such Decommissioning and HazMat Closure Plan and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties with a legitimate business reason for reviewing such report; provided, however that Landlord instructs such parties to treat the same as confidential.

If Tenant shall fail to prepare or submit a Decommissioning and HazMat Closure Plan approved by Landlord, or if Tenant shall fail to complete the approved Decommissioning and HazMat Closure Plan, or if such Decommissioning and HazMat Closure Plan, whether or not approved by Landlord, shall fail to adequately address any residual effect of Tenant HazMat Operations in, on or about the Premises, Landlord shall have the right to take such actions as Landlord may deem reasonable or appropriate to assure that the Premises and the Project are surrendered free from any residual impact from Tenant HazMat Operations, the cost of which actions shall be reimbursed by Tenant as Additional Rent, without regard to the limitation set forth in the first paragraph of this Section 28.

Upon the expiration or earlier termination of the Term, Tenant shall immediately return to Landlord all keys and/or access cards to parking, the Project, restrooms or all or any portion of the Premises furnished to or otherwise procured by Tenant. If any such access card or key is lost, Tenant shall pay to Landlord, at Landlord's election, either the cost of replacing such lost access card or key or the cost of reprogramming the access security system in which such access card was used or changing the lock or locks opened by such lost key. Any Tenant's Property, Alterations and property not so removed by Tenant as permitted or required herein shall be deemed abandoned and may be stored, removed, and disposed of by Landlord at Tenant's expense, and Tenant waives all claims against Landlord for any damages or loss resulting from Landlord's retention and/or disposition of such property. All obligations of Tenant hereunder not fully performed as of the termination of the Term, including the obligations of Tenant under Section 30 hereof, shall survive the expiration or earlier termination of the Term, including, without limitation, indemnity obligations, payment obligations with respect to Rent and obligations concerning the condition and repair of the Premises.

29. **Waiver of Jury Trial**. TO THE EXTENT PERMITTED BY LAW, TENANT AND LANDLORD WAIVE ANY RIGHT TO TRIAL BY JURY OR TO HAVE A JURY PARTICIPATE IN RESOLVING ANY DISPUTE, WHETHER SOUNDING IN CONTRACT, TORT, OR OTHERWISE, BETWEEN LANDLORD AND TENANT ARISING OUT OF THIS LEASE OR ANY OTHER INSTRUMENT, DOCUMENT, OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HEREWITH OR THE TRANSACTIONS RELATED HERETO.

30. **Environmental Requirements**.

(a) **Prohibition/Compliance/Indemnity**. Tenant shall not cause or permit any Hazardous Materials (as hereinafter defined) to be brought upon, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises or the Project in violation of applicable Environmental Requirements (as hereinafter defined) by Tenant or any Tenant Party. If Tenant breaches the obligation stated in the preceding sentence, or if the presence of Hazardous Materials in the Premises during the Term or any holding over results in contamination of the Premises, the Project or any adjacent property or if contamination of the Premises, the Project or any adjacent property by Hazardous Materials brought into, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises by anyone other than Landlord and Landlord's employees, agents and contractors otherwise occurs during the Term or any holding over, Tenant hereby indemnifies and shall defend and hold Landlord, its officers, directors, employees, agents and contractors harmless from any and all actions (including, without limitation, remedial or enforcement actions of any kind, administrative or judicial proceedings, and orders or judgments arising out of or resulting therefrom), costs, claims, damages (including, without limitation, punitive damages and damages based upon diminution in value of the Premises, the Property, or the Project, or the loss of, or restriction on, use of the Premises or any portion of the Project), expenses (including, without limitation, attorneys', consultants' and experts' fees, court costs and amounts paid in settlement of any claims or actions), fines, forfeitures or other civil, administrative or criminal penalties, injunctive or other relief (whether or not based upon personal injury, property damage, or contamination of, or adverse effects upon, the environment, water tables or natural resources), liabilities or losses which arise during or after the Term as a result of such contamination. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, treatment, remedial, removal, or restoration work required by any federal, state or local Governmental Authority because of Hazardous Materials present in the air, soil or ground water above, on,

or under the Premises. Without limiting the foregoing, if the presence of any Hazardous Materials on the Premises, the Property or the Project or any adjacent property caused or permitted by Tenant or any Tenant Party results in any contamination of the Premises, the Project or any adjacent property, Tenant shall promptly take all actions at its sole expense and in accordance with applicable Environmental Requirements as are necessary to return the Premises, the Project or any adjacent property to the condition existing prior to the time of such contamination, provided that Landlord's approval of such action shall first be obtained, which approval shall not unreasonably be withheld so long as such actions would not potentially have any material adverse long-term or short-term effect on the Premises, the Property or the Project. Notwithstanding anything to the contrary contained in Section 28 or this Section 30, Tenant shall not be responsible for, and the indemnification and hold harmless obligation set forth in this paragraph shall not apply to (i) contamination in the Premises which Tenant can prove existed in the Premises immediately prior to the Commencement Date, (ii) the presence of any Hazardous Materials in the Premises which Tenant can prove migrated from outside of the Premises into the Premises, (iii) contamination caused by Landlord or any Landlord's employees, agents and contractors, unless in any case, the presence of such Hazardous Materials (x) is the result of a breach by Tenant of any of its obligations under this Lease, or (y) was caused, contributed to or exacerbated by Tenant or any Tenant Party.

(b) **Business**. Landlord acknowledges that it is not the intent of this Section 30 to prohibit Tenant from using the Premises for the Permitted Use. Landlord further acknowledges that Tenant will be using radioactive materials as part of the Permitted Use, subject to Tenant's compliance with the terms and conditions of this Lease. Tenant may operate its business according to prudent industry practices so long as the use or presence of Hazardous Materials is strictly and properly monitored according to all then applicable Environmental Requirements. As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord prior to the Commencement Date a list identifying each type of Hazardous Materials to be brought upon, kept, used, stored, handled, treated, generated on, or released or disposed of from, the Premises and setting forth any and all governmental approvals or permits required in connection with the presence, use, storage, handling, treatment, generation, release or disposal of such Hazardous Materials on or from the Premises ("**Hazardous Materials List**"). Upon Landlord's request, or any time that Tenant is required to deliver a Hazardous Materials List to any Governmental Authority (e.g., the fire department) in connection with Tenant's use or occupancy of the Premises, Tenant shall deliver to Landlord a copy of such Hazardous Materials List. Tenant shall deliver to Landlord true and correct copies of the following documents (the "**Haz Mat Documents**") relating to the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials prior to the Commencement Date, or if unavailable at that time, concurrent with the receipt from or submission to a Governmental Authority: permits; approvals; reports and correspondence; storage and management plans, notice of violations of any Legal Requirements; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given Tenant its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); and all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks. Tenant is not required, however, to provide Landlord with any portion(s) of the Haz Mat Documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities. It is not the intent of this Section to provide Landlord with information which could be detrimental to Tenant's business should such information become possessed by Tenant's competitors.

(c) **Tenant Representation and Warranty**. Tenant hereby represents and warrants to Landlord that (i) neither Tenant nor any of its legal predecessors has been required by any prior landlord, lender or Governmental Authority at any time to take remedial action in connection with Hazardous Materials contaminating a property which contamination was permitted by Tenant of such predecessor or resulted from Tenant's or such predecessor's action or use of the property in question, and (ii) Tenant is not subject to any enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority.

(d) **Testing**. Landlord shall have the right, upon reasonable advance written notice to Tenant, to conduct annual tests of the Premises to determine whether any contamination of the Premises, the Property or the Project has occurred as a result of Tenant's use. Tenant shall be required to pay the reasonable out-of-pocket cost of such annual test of the Premises if there is violation of this Section 30 or if contamination for which Tenant is responsible under this Section 30 is identified; provided, however, that if Tenant conducts its own tests of the Premises using third party contractors and test procedures reasonably acceptable to Landlord which tests are certified to Landlord, Landlord shall accept such tests in lieu of the annual tests to be paid for by Tenant. In addition, at any time, and from time to time, prior to the expiration or earlier termination of the Term, Landlord shall have the right, upon reasonable advance written notice to Tenant, to conduct appropriate tests of the Premises and the Project to determine if contamination has occurred as a result of Tenant's use of the Premises. In connection with such testing, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such non-proprietary information concerning the use of Hazardous Materials in or about the Premises by Tenant or any Tenant Party. If contamination has occurred for which Tenant is liable under this Section 30, Tenant shall pay all costs to conduct such tests. If no such contamination is found, Landlord shall pay the costs of such tests (which shall not constitute an Operating Expense). Landlord shall provide Tenant with a copy of all third party, non-confidential reports and tests of the Premises made by or on behalf of Landlord during the Term without representation or warranty and subject to a confidentiality agreement. Tenant shall, at its sole cost and expense, promptly and satisfactorily remediate any environmental conditions identified by such testing for which Tenant is responsible under this Lease in accordance with all Environmental Requirements. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights that Landlord may have against Tenant. Subject to the terms of Section 32 below, Tenant shall have the right to have a Tenant representative present while Landlord conducts tests in the Premises pursuant to this Section 30(d).

(e) **Control Areas**. Tenant shall have the use of 100% of the control areas identified as Control Areas 1.1, 2.1 and 2.2 on **Exhibit H**. For the avoidance of doubt, Tenant shall not have rights with respect to any other control areas at the Project.

(f) **Storage Tanks**. If storage tanks storing Hazardous Materials located on the Premises or the Project are used by Tenant or are hereafter placed on the Premises or the Project by Tenant, Tenant shall install, use, monitor, operate, maintain, upgrade and manage such storage tanks, maintain appropriate records, obtain and maintain appropriate insurance, implement reporting procedures, properly close any storage tanks, and take or cause to be taken all other actions necessary or required under applicable state and federal Legal Requirements, as such now exists or may hereafter be adopted or amended in connection with the installation, use, maintenance, management, operation, upgrading and closure of such storage tanks. Notwithstanding anything to the contrary contained herein, Tenant shall have no right to use or install any underground storage tanks at the Project.

(g) **Tenant's Obligations**. Tenant's obligations under this Section 30 shall survive the expiration or earlier termination of the Lease. Any period after the expiration or earlier termination of this Lease required by Tenant or Landlord to complete the removal from the Premises of any Hazardous Materials for which Tenant is responsible under this Lease (including, without limitation, the release and termination of any licenses or permits restricting the use of the Premises and the completion of the approved Decommissioning and HazMat Closure Plan) shall constitute a hold over pursuant to Section 8.

(h) **Definitions**. As used herein, the term "**Environmental Requirements**" means all applicable present and future statutes, regulations, ordinances, rules, codes, judgments, orders or other similar enactments of any Governmental Authority regulating or relating to health, safety, or environmental conditions on, under, or about the Premises or the Project, or the environment, including without limitation, the following: the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; and all state and local counterparts thereto, and any regulations or policies promulgated or issued thereunder. As used herein, the term "**Hazardous Materials**" means and includes any substance, material, waste, pollutant, or contaminant listed or defined as hazardous or toxic, or regulated by reason of its impact or potential impact on humans, animals and/or the environment under any

Environmental Requirements, asbestos and petroleum, including crude oil or any fraction thereof, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). As defined in Environmental Requirements, Tenant is and shall be deemed to be the "**operator**" of Tenant's "**facility**" and the "**owner**" of all Hazardous Materials brought on the Premises by Tenant or any Tenant Party, and the wastes, by-products, or residues generated, resulting, or produced therefrom.

31. **Tenant's Remedies/Limitation of Liability**. Landlord shall not be in default hereunder unless Landlord fails to perform any of its obligations hereunder within 30 days after written notice from Tenant specifying such failure (unless such performance will, due to the nature of the obligation, require a period of time in excess of 30 days, then after such period of time as is reasonably necessary so long as Landlord has commenced the cure and is diligently prosecuting the same to completion). Upon any default by Landlord, Tenant shall give notice by registered or certified mail to any Holder of a Mortgage covering the Premises and to any landlord of any lease of property in or on which the Premises are located and Tenant shall offer such Holder and/or landlord a reasonable opportunity to cure the default, including time to obtain possession of the Project by power of sale or a judicial action if such should prove necessary to effect a cure; provided Landlord shall have furnished to Tenant in writing the names and addresses of all such persons who are to receive such notices. All obligations of Landlord hereunder shall be construed as covenants, not conditions; and, except as may be otherwise expressly provided in this Lease, Tenant may not terminate this Lease for breach of Landlord's obligations hereunder.

Notwithstanding the foregoing, if any claimed Landlord default hereunder will immediately, materially and adversely affect Tenant's ability to conduct its business in the Premises (a "**Material Landlord Default**"), Tenant shall, as soon as reasonably possible, but in any event within 5 business days of obtaining knowledge of such claimed Material Landlord Default, give Landlord written notice of such claim which notice shall specifically state that a Material Landlord Default exists and telephonic notice to Tenant's principal contact with Landlord. Landlord shall then have 5 business days to commence cure of such claimed Material Landlord Default and shall diligently prosecute such cure to completion. If such claimed Material Landlord Default is not a default by Landlord hereunder, or if Tenant failed to give Landlord the notice required hereunder within 5 business days of learning of the conditions giving rise to the claimed Material Landlord Default, Landlord shall be entitled to recover from Tenant, as Additional Rent, any costs incurred by Landlord in connection with such cure in excess of the costs, if any, that Landlord would otherwise have been liable to pay hereunder. If Landlord fails to commence cure of any claimed Material Landlord Default as provided above, Tenant may commence and prosecute such cure to completion provided that it does not affect any Building Systems, the Building structure or the Common Areas or adversely impact other occupants of the Building, and shall be entitled to recover the costs of such cure (but not any consequential or other damages) from Landlord by way of reimbursement from Landlord with no right to offset against Rent, to the extent of Landlord's obligation to cure such claimed Material Landlord Default hereunder, subject to the limitations set forth in the immediately preceding sentence of this paragraph and the other provisions of this Lease.

All obligations of Landlord under this Lease will be binding upon Landlord only during the period of its ownership of the Premises and not thereafter. The term "**Landlord**" in this Lease shall mean only the owner for the time being of the Premises. Upon the transfer by such owner of its interest in the Premises, such owner shall thereupon be released and discharged from all obligations of Landlord thereafter accruing, but such obligations shall be binding during the Term upon each new owner for the duration of such owner's ownership.

32. **Inspection and Access**. Landlord and Landlord's representatives may enter the Premises during business hours on not less than 48 hours advance written notice (except in the case of emergencies in which case no such notice shall be required and such entry may be at any time) for the purpose of effecting any such repairs, inspecting the Premises, showing the Premises to prospective purchasers and, during the last 12 months of the Term, to prospective tenants or for any other business purpose. Landlord may grant easements, make public dedications, designate Common Areas and create restrictions on or about the Premises, provided that no such easement, dedication, designation or restriction materially,

adversely affects Tenant's use or occupancy of the Premises for the Permitted Use. At Landlord's request, Tenant shall execute such instruments as may be necessary for such easements, dedications or restrictions. Tenant shall at all times, except in the case of emergencies, have the right to escort Landlord or its agents, representatives, contractors or guests while the same are in the Premises, provided such escort does not materially and adversely affect Landlord's access rights hereunder. Landlord shall use reasonable efforts to comply with Tenant's written safety and security protocols with respect to entering the Premises; provided, however, that a copy of the same has previously been provided to Landlord.

33. **Security**. Tenant acknowledges and agrees that security devices and services, if any, while intended to deter crime may not in given instances prevent theft or other criminal acts and that Landlord is not providing any security services with respect to the Premises. Tenant agrees that Landlord shall not be liable to Tenant for, and Tenant waives any claim against Landlord with respect to, any loss by theft or any other damage suffered or incurred by Tenant in connection with any unauthorized entry into the Premises or any other breach of security with respect to the Premises. Tenant shall be solely responsible for the personal safety of Tenant's officers, employees, agents, contractors, guests and invitees while any such person is in, on or about the Premises and/or the Project. Tenant shall at Tenant's cost obtain insurance coverage to the extent Tenant desires protection against such criminal acts.

Subject to the terms of this Lease, including, without limitation, Tenant's compliance with Section 12, Tenant, at Tenant's sole cost and expense, shall have the right to install and maintain a security and card access system including camera inside and outside the Premises and at the entrance to the Premises ("**Tenant's Security System**"), subject to the following conditions: (i) Tenant's plans and specifications for the proposed Tenant's Security System shall be subject to Landlord's prior written approval, which approval will not be unreasonably withheld (except with respect to cameras outside of the Premises, the location of which shall be subject to Landlord's prior approval which may be withheld in its sole discretion); provided, however, that Tenant shall coordinate the installation and operation of Tenant's Security System with Landlord to assure that Tenant's Security System may be compatible with the Building's systems and equipment and Tenant does not violate the reasonable privacy rights of any other occupants of the Project; (ii) Landlord shall be provided with keys, codes and/or access cards, as applicable, and means of immediate access to fully exercise all of its entry rights under this Lease with respect to the Premises; and (iii) Tenant shall keep Tenant's Security System in good operating condition and repair and Tenant shall be solely responsible, at Tenant's sole cost and expense, for the installation, monitoring, operation and removal of Tenant's Security System. Upon the expiration or earlier termination of this Lease, Tenant shall remove Tenant's Security System. All costs and expenses associated with the removal of Tenant's Security System and the repair of any damage to the Premises and the Building resulting from the installation and/or removal of same shall be borne solely by Tenant. Notwithstanding anything to the contrary contained herein, neither Landlord nor any Landlord Parties shall be directly or indirectly liable to Tenant, any Tenant Parties or any other person and Tenant hereby waives any and all claims against and releases Landlord and Landlord Parties from any and all claims arising as a consequence of or related to Tenant's Security System, or the failure thereof.

34. **Force Majeure**. Except for the payment of Rent, neither Landlord nor Tenant shall be held responsible or liable for delays in the performance of its obligations hereunder when caused by, related to, or arising out of acts of God, sinkholes or subsidence, strikes, lockouts, or other labor disputes, embargoes, quarantines, weather, national, regional, or local disasters, calamities, or catastrophes, inability to obtain labor or materials (or reasonable substitutes therefor) at reasonable costs or failure of, or inability to obtain, utilities necessary for performance, governmental restrictions, orders, limitations, regulations, or controls, national emergencies, local, regional or national epidemic or pandemic, delay in issuance or revocation of permits, enemy or hostile governmental action, terrorism, insurrection, riots, civil disturbance or commotion, cyberattacks, ransomware attacks and similar events, fire or other casualty, and other causes or events beyond their reasonable control ("**Force Majeure**").

35. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with this transaction and that no Broker brought about this transaction, other than Re:Align, Cushman & Wakefield and CBRE. Landlord and Tenant

each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker, other than Re:Align, Cushman & Wakefield and CBRE, claiming a commission or other form of compensation, if any, by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction. Landlord shall be responsible for all commissions due to Re:Align, Cushman & Wakefield and CBRE arising out of the execution of this Lease in accordance with the terms of a separate written agreement between Re:Align, Cushman & Wakefield and CBRE, on the one hand, and Landlord, on the other hand.

36. **Limitation on Landlord's Liability**. NOTWITHSTANDING ANYTHING SET FORTH HEREIN OR IN ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT TO THE CONTRARY: (A) LANDLORD SHALL NOT BE LIABLE TO TENANT OR ANY OTHER PERSON FOR (AND TENANT AND EACH SUCH OTHER PERSON ASSUME ALL RISK OF) LOSS, DAMAGE OR INJURY, WHETHER ACTUAL OR CONSEQUENTIAL TO: TENANT'S PERSONAL PROPERTY OF EVERY KIND AND DESCRIPTION, INCLUDING, WITHOUT LIMITATION TRADE FIXTURES, EQUIPMENT, INVENTORY, SCIENTIFIC RESEARCH, SCIENTIFIC EXPERIMENTS, LABORATORY ANIMALS, PRODUCT, SPECIMENS, SAMPLES, AND/OR SCIENTIFIC, BUSINESS, ACCOUNTING AND OTHER RECORDS OF EVERY KIND AND DESCRIPTION KEPT AT THE PREMISES AND ANY AND ALL INCOME DERIVED OR DERIVABLE THEREFROM; (B) ANY LIABILITY OF LANDLORD HEREUNDER SHALL BE STRICTLY LIMITED SOLELY TO LANDLORD'S INTEREST IN THE PROJECT OR ANY PROCEEDS FROM SALE OR CONDEMNATION THEREOF AND ANY INSURANCE PROCEEDS PAYABLE IN RESPECT OF LANDLORD'S INTEREST IN THE PROJECT OR IN CONNECTION WITH ANY SUCH LOSS; AND (C) IN NO EVENT SHALL ANY PERSONAL LIABILITY BE ASSERTED AGAINST LANDLORD IN CONNECTION WITH THIS LEASE NOR SHALL ANY RECOURSE BE HAD TO ANY OTHER PROPERTY OR ASSETS OF LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, MEMBERS, EMPLOYEES, AGENTS OR CONTRACTORS. UNDER NO CIRCUMSTANCES SHALL LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS BE LIABLE FOR INJURY TO TENANT'S BUSINESS OR FOR ANY LOSS OF INCOME OR PROFIT THEREFROM.

In no event shall personal liability be asserted for Tenant's obligations under this Lease against any of Tenant's officers, directors, employees or agents.

Tenant acknowledges and agrees that measures and/or services implemented at the Project, if any, intended to encourage social distancing, promote and protect health and physical well-being and/or intended to limit the spread of Infectious Conditions, may not prevent the spread of such Infectious Conditions. Neither Landlord nor any Landlord Indemnified Parties shall have any liability and Tenant waives any claims against Landlord and the Landlord Indemnified Parties with respect to any loss, damage or injury in connection with (x) the implementation, or failure of Landlord or any Landlord Indemnified Parties to implement, any measures and/or services at the Project intended to encourage social distancing, promote and protect health and physical well-being and/or intended to limit the spread of Infectious Conditions, or (y) the failure of any measures and/or services implemented at the Project, if any, to limit the spread of any Infectious Conditions.

37. **Severability**. If any clause or provision of this Lease is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Lease shall not be affected thereby. It is also the intention of the parties to this Lease that in lieu of each clause or provision of this Lease that is illegal, invalid or unenforceable, there be added, as a part of this Lease, a clause or provision as similar in effect to such illegal, invalid or unenforceable clause or provision as shall be legal, valid and enforceable.

38. **Signs; Exterior Appearance**. Tenant shall not, without the prior written consent of Landlord, which may be granted or withheld in Landlord's reasonable discretion: (i) attach any awnings, exterior lights, decorations, balloons, flags, pennants, banners, painting or other projection to any outside wall of the Property or the Project, (ii) use any curtains, blinds, shades or screens other than Landlord's standard window coverings, (iii) coat or otherwise sunscreen the interior or exterior of any windows, (iv) place any bottles, parcels, or other articles on the window sills, (v) place any equipment, furniture or other items of

personal property on any exterior balcony, or (vi) paint, affix or exhibit on any part of the Premises, the Building, the Property or the Project any signs, notices, window or door lettering, placards, decorations, or advertising media of any type which can be viewed from the exterior of the Premises. Building standard suite entry signage shall be inscribed, painted or affixed for Tenant by Landlord at the sole cost and expense of Landlord, and shall be of a size, color and type reasonably acceptable to Landlord and Tenant's name and suite number shall be included on the Building lobby directory. Nothing may be placed on the exterior of corridor walls or corridor doors other than Landlord's standard lettering. The Building lobby directory shall be provided exclusively for the display of the name and location of tenants.

Tenant shall have the non-exclusive right to display, at Tenant's cost and expense, a sign bearing Tenant's name and/or logo on the monument sign serving the Building in a location designated by Landlord (the "**Monument Sign**"). Notwithstanding the foregoing, Tenant acknowledges and agrees that Tenant's signage on the Monument Sign including, without limitation, the size, color and type, shall be subject to Landlord's prior written approval and shall be consistent with Landlord's signage program at the Project and applicable Legal Requirements. Notwithstanding the foregoing, Landlord hereby approves Tenant's standard corporate signage design, colors, and logo, and signage depicted on **Exhibit I** attached hereto, in the location identified on **Exhibit I**. Tenant shall be responsible, at Tenant's sole cost and expense, for the design, permitting, fabrication, installation and maintenance of Tenant's signage on the Monument Sign, for the removal of Tenant's signage on the Monument Sign at the expiration or earlier termination of this Lease, and for the repair of all damage resulting from such removal.

Tenant shall also have the non-exclusive right to display 1 sign bearing Tenant's name and logo on the Building-top in a location designated by Landlord (the "**Building Sign**"). Notwithstanding the foregoing, Tenant acknowledges and agrees that Tenant's Building Sign including, without limitation, the size, color and type, shall be subject to Landlord's prior written approval and shall be consistent with Landlord's signage program at the Project and applicable Legal Requirements. Notwithstanding the foregoing, Landlord hereby approves Tenant's standard corporate signage design, colors, and logo, and signage depicted on **Exhibit I**, to be located in one of the two locations identified on **Exhibit I**. Tenant shall be responsible, at Tenant's sole cost and expense, for the design, permitting, fabrication, installation and maintenance of Tenant's Building Sign, for the removal of Tenant's Building Sign at the expiration or earlier termination of this Lease, and for the repair of all damage resulting from such removal.

Subject to obtaining Landlord's prior written consent (not to be unreasonably withheld, conditioned or delayed) and otherwise subject to compliance with the terms and conditions of this Section 38, Tenant shall have the right to alter Tenant's Monument Sign and/or Building Sign from time to time (but in no event more often than once per year) during the Term; provided, however that Tenant shall obtain Landlord's prior written consent pursuant to this Section 38 and shall otherwise comply with the all of the terms and conditions of this Section 38 (including, without limitation, that the design, permitting, fabrication, installation, maintenance, removal and replacement of any such Monument Sign and Building Sign shall be at Tenant's sole cost and expense).

39. **Right of First Refusal.**

(a) Subject to the terms of this Section 39(a), the first time after the Effective Date that Landlord intends to accept a bona fide written proposal or deliver a counter proposal which Landlord would be willing to accept (the "**Pending Deal**") to lease all or a portion the ROFR Space (as hereinafter defined) to a third party, Landlord shall deliver to Tenant written notice (the "**Pending Deal Notice**") of the existence of such Pending Deal, which Pending Deal Notice shall include the material terms of the Pending Deal. For purposes of this Section 39(a), "**ROFR Space**" shall mean that certain space in the first floor of the Building, as more particularly described on **Exhibit J** attached hereto, which is not occupied by a tenant or which is occupied by an existing tenant whose lease is expiring within 36 months or less and such tenant does not wish to renew (whether or not such tenant has a right to renew) its occupancy of such space. Landlord has agreed to construct a spec suite, containing approximately 5,000 rentable square feet, on the first floor of the Building, as more particularly identified on **Exhibit J** as the "Spec Suite" (the "**Spec Suite**"). Landlord and Tenant acknowledge and agree that the plans for the Spec Suite attached as **Exhibit J** have been

agreed to by Landlord and Tenant. Landlord shall not materially modify the plans for the Spec Suite without obtaining Tenant's prior written approval, which shall not be unreasonably withheld, conditioned or delayed. Landlord shall use commercially reasonable efforts to construct the Spec Suite concurrently with Landlord's construction of the Tenant Improvements under the Work Letter. Notwithstanding the foregoing, Tenant acknowledges and agrees that, as of the date of this Lease, Landlord intends to enter into a lease agreement with Tentatrix Biotherapeutics, Inc., a Delaware corporation ("**Tentatrix Lease**") with respect to that certain portion of the ROFR Space known as Suite 100, containing approximately 12,635 rentable square feet, and (x) Landlord agrees the term of the Tentatrix Lease shall expire no later than December 31, 2026, (y) Landlord shall have no obligation to deliver to Tenant a Pending Deal Notice in connection with such Tentarix Lease, and (z) Tenant shall not have a Right of First Refusal with respect to such space until the expiration or earlier termination of the Tentatrix Lease. For the avoidance of doubt, Tenant's Right of First Refusal shall be superior to any proposed extension of the Tentarix Lease beyond December 31, 2026. For the avoidance of doubt, Tenant shall be required to exercise its right under this Section 39(a) with respect to all of the space described in the Pending Deal Notice, including, at Landlord's option, any space in addition to the ROFR Space that is described in the Pending Deal Notice, which additional space shall be deemed to be included as part of the ROFR Space (the "**Identified Space**"). Within 5 business days after Tenant's receipt of the Pending Deal Notice, Tenant shall deliver to Landlord written notice (the "**Acceptance Notice**") if Tenant elects to lease the Identified Space. Tenant's right to receive the Pending Deal Notice and election to lease or not lease the Identified Space pursuant to this Section 39(a) is hereinafter referred to as the "**Right of First Refusal**." If Tenant elects to lease the Identified Space described in the Pending Deal Notice by delivering the Space Acceptance Notice within the required 5 business day period, Tenant shall be deemed to agree to expand the Premises to include the Identified Space and to lease the Identified Space on the same general terms and conditions as this Lease except that the terms of this Lease shall be modified to reflect the terms of the Pending Deal Notice for the rental of the Identified Space. Tenant acknowledges that the term of this Lease with respect to the Identified Space and the Term of this Lease with respect to the existing Premises may not be co-terminous. Notwithstanding anything to the contrary contained herein, in no event shall the Work Letter apply to the Identified Space. If Tenant fails to deliver an Acceptance Notice to Landlord within the required 5 business day period, Tenant shall be deemed to have forever waived its rights under this Section 39(a) to lease the Identified Space; provided, however, that if (i) Landlord has not entered into a lease for the Identified Space within 180 days after Landlord's delivery to Tenant of a Pending Deal Notice, or (ii) Landlord intends to lease the Identified Space to a third party for a net effective rental rate of less than 95% of the rental rate set forth in the Pending Deal Notice, then Tenant's Right of First Refusal with respect to the Identified Space shall be restored and Landlord shall deliver to Tenant a new Pending Deal Notice. Notwithstanding anything to the contrary contained herein, Tenant shall have no right to a Pending Deal Notice and the provisions of this Section 39(a) shall no longer apply after the date that is 12 months prior to the expiration of the Base Term if Tenant has not exercised its Extension Right pursuant to Section 40.

(b) **Amended Lease**. If: (i) Tenant fails to timely deliver an Acceptance Notice, or (ii) after the expiration of a period of 20 days after Landlord's delivery to Tenant of a lease amendment for Tenant's lease of the Identified Space, no lease amendment for the Identified Space acceptable to both parties each in their reasonable discretion after using diligent good faith efforts negotiate the same, has been executed, Tenant shall, notwithstanding anything to the contrary contained herein, be deemed to have forever waived its right to lease such Identified Space.

(c) **Exceptions**. Notwithstanding the above, the Right of First Refusal shall not be in effect and may not be exercised by Tenant:

(i) during any period of time that Tenant is in default under any provision of this Lease (beyond any applicable notice and cure periods); or

(ii) during any period of time that 50% or more of the Premises, in the aggregate, is subject to a sublease or an assignment that is not a Permitted Assignment; or

(iii) if Tenant has been in default (beyond any applicable notice and cure periods) under any provision of this Lease 3 or more times, whether or not such defaults have been cured, during the 12 month period prior to the date on which Tenant seeks to exercise the Right of First Refusal.

(d) **Termination**. The Right of First Refusal shall, at Landlord's option, terminate and be of no further force or effect even after Tenant's due and timely delivery of an Acceptance Notice, if, after such delivery, but prior to the commencement date of the lease of such Identified Space, (i) Tenant fails to cure any default by Tenant under this Lease prior to the expiration or any applicable notice and cure periods; or (ii) Tenant has defaulted (beyond any applicable notice and cure periods) 3 or more times during the period commencing on the date of delivery of an Acceptance Notice through the date of the commencement of the lease of the Identified Space, whether or not such defaults have been cured.

(e) **Rights Personal**. The Right of First Refusal is personal to Tenant and is not assignable without Landlord's prior written consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in this Lease, except that they may be assigned in connection with any Permitted Assignment of this Lease.

(f) **No Extensions**. The period of time within which the Right of First Refusal may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Right of First Refusal.

40. **Right to Extend Term**. Tenant shall have the right to extend the Term of this Lease upon the following terms and conditions:

(a) **Extension Right**. Tenant shall have one right (an "**Extension Right**") to extend the term of this Lease for 36 months (the "**Extension Term**") on the same terms and conditions as this Lease (other than with respect to Base Rent and the Work Letter) by giving Landlord written notice of its election to exercise the Extension Right (the "**Exercise Notice**") at least 12 months prior, and no earlier than 15 months prior, to the expiration of the Base Term of this Lease.

Upon the commencement of the Extension Term, Base Rent shall be payable at the Market Rate (as defined below). Base Rent shall thereafter be adjusted on each annual anniversary of the commencement of such Extension Term by a percentage as determined by Landlord and agreed to by Tenant at the time the Market Rate is determined.

As used herein, "**Market Rate**" shall mean the rate that Landlord, affiliates of Landlord, and comparable landlords of comparable buildings have accepted during the 12 month period prior to Tenant's exercise of the Extension Right from non-equity (i.e., not being offered equity in the buildings) and nonaffiliated tenants of similar financial strength for space of comparable size, quality (including the Tenant Improvements, Alterations and other improvements) and floor height in comparable in laboratory/office buildings in the Torrey Pines submarket (including those owned by Landlord or affiliates of Landlord) for a comparable term, with the determination of the Market Rate to take into account all relevant factors, including tenant inducements, views, available amenities (including, without limitation, the Project Amenities and the Regional Amenities (as defined in Section 41)), age of the Buildings, age and size of mechanical systems serving the Premises (including, without limitation, the emergency generator), percentage of laboratory and office space, parking costs, leasing commissions, allowances or concessions, if any.

Tenant shall exercise the Extension Right, if at all, as follows: (i) Tenant shall deliver written notice to Landlord (the "**Interest Notice**") at least 13 months, and no earlier than 16 months, prior to the expiration of the Base Term, requesting Landlord's determination of the Market Rate and escalations for the Extension Term; (ii) Landlord shall deliver written notice (the "**Extension Rent Notice**") to Tenant within 30 days after Landlord's receipt of the Interest Notice setting forth Landlord's good faith determination of the Market Rate for the Extension Term; and (iii) if Tenant wishes to exercise the Extension Right, Tenant shall, on or before

the date which is 12 months prior to the expiration of the Base Term, exercise the Extension Right by delivering an Exercise Notice to Landlord. Concurrently with Tenant's delivery of an Exercise Notice to Landlord, Tenant may object, in writing (the "**Objection Notice**"), to Landlord's determination of the Market Rate set forth in the Extension Rent Notice, in which event such Market Rate shall be determined by arbitration pursuant to Section 40(b) below. If Tenant does not deliver an Objection Notice pursuant to the immediately preceding sentence, Tenant shall be deemed to have accepted the Market Rate set forth in the Extension Rent Notice. Tenant acknowledges and agrees that, if Tenant has delivered an Exercise Notice to Landlord pursuant to this Section 40(a), Tenant shall have no right thereafter to rescind such Exercise Notice or elect not to extend the Term of the Lease for the Extension Term.

(b) **Arbitration**.

(i) Within 10 days of Tenant's notice to Landlord of its election (or deemed election) to arbitrate Market Rate and escalations, each party shall deliver to the other a proposal containing the Market Rate and escalations that the submitting party believes to be correct ("**Extension Proposal**"). If either party fails to timely submit an Extension Proposal, the other party's submitted proposal shall determine the Base Rent and escalations for the Extension Term. If both parties submit Extension Proposals, then Landlord and Tenant shall meet within 7 days after delivery of the last Extension Proposal and make a good faith attempt to mutually appoint a single Arbitrator (and defined below) to determine the Market Rate and escalations. If Landlord and Tenant are unable to agree upon a single Arbitrator, then each shall, by written notice delivered to the other within 10 days after the meeting, select an Arbitrator. If either party fails to timely give notice of its selection for an Arbitrator, the other party's submitted proposal shall determine the Base Rent for the Extension Term. The 2 Arbitrators so appointed shall, within 5 business days after their appointment, appoint a third Arbitrator. If the 2 Arbitrators so selected cannot agree on the selection of the third Arbitrator within the time above specified, then either party, on behalf of both parties, may request such appointment of such third Arbitrator by application to any state court of general jurisdiction in the jurisdiction in which the Premises are located, upon 10 business days prior written notice to the other party of such intent.

(ii) The decision of the Arbitrator(s) shall be made within 30 days after the appointment of a single Arbitrator or the third Arbitrator, as applicable. The decision of the single Arbitrator shall be final and binding upon the parties. The average of the two closest Arbitrators in a three Arbitrator panel shall be final and binding upon the parties. Each party shall pay the fees and expenses of the Arbitrator appointed by or on behalf of such party and the fees and expenses of the third Arbitrator shall be borne equally by both parties. If the Market Rate and escalations are not determined by the first day of the Extension Term, then Tenant shall pay Landlord Base Rent in an amount equal to the Base Rent in effect immediately prior to the Extension Term and increased by the Rent Adjustment Percentage until such determination is made. After the determination of the Market Rate and escalations, the parties shall make any necessary adjustments to such payments made by Tenant. Landlord and Tenant shall then execute an amendment recognizing the Market Rate and escalations for the Extension Term.

(iii) An "**Arbitrator**" shall be any person appointed by or on behalf of either party or appointed pursuant to the provisions hereof and: (i) shall be (A) a member of the American Institute of Real Estate Appraisers with not less than 10 years of experience in the appraisal of improved office and high tech industrial real estate in the greater San Diego metropolitan area, or (B) a licensed commercial real estate broker with not less than 15 years' experience representing landlords and/or tenants in the leasing of high tech or life sciences space in the greater San Diego metropolitan area, (ii) devoting substantially all of their time to professional appraisal or brokerage work, as applicable, at the time of appointment and (iii) be in all respects impartial and disinterested.

(c) **Exceptions**. Notwithstanding anything set forth above to the contrary, the Extension Right shall not be in effect and Tenant may not exercise the Extension Right:

(i) during any period of time that Tenant is in default under any provision of this Lease (beyond any applicable notice and cure periods); or

(ii) during any period of time that 50% or more of the Premises, in the aggregate, is subject to a sublease or an assignment that is not a Permitted Assignment; or

(iii) if Tenant has been in default (beyond any applicable notice and cure periods) under any provision of this Lease 3 or more times, whether or not such defaults have been cured, during the 12 month period prior to the date on which Tenant seeks to exercise such Extension Right.

(d) **Rights Personal**. The Extension Right is personal to Tenant and is not assignable without Landlord's prior written consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in this Lease, except that it may be assigned in connection with any assignment of this Lease that constitutes a Permitted Assignment of this Lease.

(e) **No Extensions**. The period of time within which the Extension Right may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise such Extension Right.

(f) **Termination**. The Extension Right shall, at Landlord's option, terminate and be of no further force or effect even after Tenant's due and timely exercise of the Extension Right, if, after such exercise, but prior to the commencement date of the Extension Term, (i) Tenant fails to timely cure any default by Tenant under this Lease (beyond any applicable notice and cure periods); or (ii) Tenant has defaulted (beyond any applicable notice and cure periods) 3 or more times during the period commencing on the date of the exercise of such Extension Right to the date of the commencement of the Extension Term, whether or not such defaults have been cured.

41. **The Alexandria Regional Amenities**.

(a) **Generally**. Certain amenities are available at that certain property owned by ARE-SD Region No. 17, LLC, a Delaware limited liability company ("**The Alexandria Landlord**"), located at 10996 Torreyana Road, San Diego, California ("**The Alexandria**"), which, as of the date of this Lease, include, without limitation, shared conference facilities ("**Shared Conference Facilities**"), a fitness center and restaurant (collectively, the "**Regional Amenities**") for non-exclusive use by (a) Tenant, (b) other tenants of the Project, (c) Landlord, (d) the tenants of The Alexandria Landlord, (e) The Alexandria Landlord, (f) other affiliates of Landlord, The Alexandria Landlord and Alexandria Real Estate Equities, Inc. ("**ARE**"), (g) the tenants of such other affiliates of Landlord, The Alexandria Landlord and ARE, and (h) any other parties permitted by The Alexandria Landlord (collectively, "**Users**"). Landlord, The Alexandria Landlord, ARE, and all affiliates of Landlord, Alexandria Landlord and ARE may be referred to collectively herein as the "**ARE Parties**." Notwithstanding anything to the contrary contained herein, Tenant acknowledges and agrees that The Alexandria Landlord shall have the right, at the sole discretion of The Alexandria Landlord, to not make the Regional Amenities available for use by some or all currently contemplated Users (including Tenant), provided, however, that, subject to Tenant's compliance with the terms and conditions of this Section 41, such Regional Amenities will be made available to Tenant so long as they are made generally available to the other tenants at the Project pursuant to their leases for space at the Project. The Alexandria Landlord shall have the sole right to determine all matters related to the Regional Amenities including, without limitation, relating to the reconfiguration, relocation, modification or removal of any of the Regional Amenities at The Alexandria and/or to revise, expand or discontinue any of the services (if any) provided in connection with the Regional Amenities. Tenant acknowledges and agrees that Landlord has not made any representations or warranties regarding the availability of the Regional Amenities and that Tenant is not entering into this Lease relying on the continued availability of the Regional Amenities to Tenant.

(b) **License**. Commencing on the Commencement Date, and so long as The Alexandria and the Project continue to be owned by affiliates of ARE, Tenant shall have the non-exclusive right to the use

of the available Regional Amenities in common with other Users pursuant to the terms of this Section 41. Tenant shall be entitled to 2.5 passes to the fitness center located at The Alexandria per 1,000 rentable square feet of the Premises for use by employees of Tenant employed at the Premises. If any employee of Tenant to whom a fitness center pass has been issued ceases to be an employee of Tenant at the Premises or any employee to whom an access card (which does not include a fitness center pass) has been issued ceases to be an employee of Tenant at the Premises, Tenant shall, immediately upon such employee's change in status, collect such employee's pass or access card, as applicable, deliver it to Landlord and along with written notice of such employee's change in status. Commencing on the Commencement Date, Tenant shall commence paying Landlord a fixed fee during the Base Term equal to $6.00 per rentable square foot of the Premises per year ("**Regional Amenities Fee**"), which Regional Amenities Fee shall by payable on the first day of each month during the Term whether or not Tenant elects to use any or all of the Regional Amenities. The Regional Amenities Fee shall be increased annually on each anniversary of the Commencement Date by 3%.

(c) **Shared Conference Facilities**. Use by Tenant of the Shared Conference Facilities and restaurant at The Alexandria shall be in common with other Users with scheduling procedures reasonably determined by The Alexandria Landlord or The Alexandria Landlord's then designated event operator ("**Event Operator**"). Tenant's use of the Shared Conference Facilities shall be subject to the payment by Tenant to The Alexandria Landlord of a fee equal to The Alexandria Landlord's quoted rates for the usage of the Shared Conference Facilities in effect at the time of Tenant's scheduling. Tenant's use of the conference rooms in the Shared Conference Facilities shall be subject to availability and The Alexandria Landlord (or, if applicable, Event Operator) reserves the right to exercise its reasonable discretion in the event of conflicting scheduling requests among Users. Tenant hereby acknowledges that (i) Biocom/San Diego, a California non-profit corporation ("**Biocom**") has the right to reserve the Shared Conference Facilities and any reservable dining area(s) included within the Regional Amenities for up to 50% of the time that such Shared Conference Facilities and reservable dining area(s) are available for use by Users each calendar month, and (ii) Illumina, Inc., a Delaware corporation, has the exclusive use of the main conference room within the Shared Conference Facilities for up to 4 days per calendar month.

Tenant shall be required to use the food service operator designated by The Alexandria Landlord at The Alexandria (the "**Designated Food and Beverage Operator**") for any food and/or beverage service or catered events held by Tenant in the Shared Conference Facilities. The Alexandria Landlord has the right, in its sole and absolute discretion, to change the Designated Food and Beverage Operator at any time. Tenant may not use any vendors other than the Designated Food and Beverage Operator nor may Tenant supply its own food and/or beverages in connection with any food and/or beverage service or catered events held by Tenant in the Shared Conference Facilities.

Tenant shall, at Tenant's sole cost and expense, (i) be responsible for the set-up of the Shared Conference Facilities in connection with Tenant's use (including, without limitation ensuring that Tenant has a sufficient number of chairs and tables and the appropriate equipment), and (ii) surrender the Shared Conference Facilities after each time that Tenant uses the Shared Conference Facilities free of Tenant's personal property, in substantially the same set up and same condition as received, subject to casualty, and free of any debris and trash. If Tenant fails to restore and surrender the Shared Conference Facilities as required by sub-section (ii) of the immediately preceding sentence, such failure shall constitute a "**Shared Facilities Default**." Each time that Landlord reasonably determines that Tenant has committed a Shared Facilities Default, Tenant shall be required to pay Landlord a penalty within 5 days after notice from Landlord of such Shared Facilities Default. The penalty payable by Tenant in connection with the first Shared Facilities Default shall be $200. The penalty payable shall increase by $50 for each subsequent Shared Facilities Default (for the avoidance of doubt, the penalty shall be $250 for the second Shared Facilities Default, shall be $300 for the third Shared Facilities Default, etc.). In addition to the foregoing, Tenant shall be responsible for reimbursing The Alexandria Landlord or Landlord, as applicable, for all costs expended by The Alexandria Landlord or Landlord, as applicable, in repairing any damage to the Shared Conference Facilities, the Regional Amenities, or The Alexandria caused by Tenant or any Tenant Party. The provisions of this Section 41(c) shall survive the expiration or earlier termination of this Lease.

(d) **Restaurant**. Tenant's employees that have been issued an access card to The Alexandria shall have the right, along with other Users, to access and use the restaurant located at The Alexandria.

(e) **Rules and Regulations**. Tenant shall be solely responsible for paying for any and all ancillary services (e.g., audio visual equipment) provided to Tenant, all food services operators and any other third party vendors providing services to Tenant at The Alexandria. Tenant shall use the Regional Amenities (including, without limitation, the Shared Conference Facilities) in compliance with all applicable Legal Requirements and any reasonable rules and regulations imposed by The Alexandria Landlord or Landlord from time to time and in a manner that will not interfere with the rights of other Users.. Rules and regulations imposed by Alexandria Landlord or Landlord with respect to the Regional Amenities may include rule and regulations intended to encourage social distancing, promote and protect health and physical well-being and/or intended to limit the spread of Infectious Conditions The use of the Regional Amenities other than the Shared Conference Facilities by employees of Tenant shall be in accordance with the terms and conditions of the standard licenses, indemnification and waiver agreement required by The Alexandria Landlord or the operator of the Regional Amenities to be executed by all persons wishing to use such Regional Amenities. Neither The Alexandria Landlord nor Landlord (nor, if applicable, any other affiliate of Landlord) shall have any liability or obligation for the breach of any rules or regulations by other Users with respect to the Regional Amenities. Tenant shall not make any alterations, additions, or improvements of any kind to the Shared Conference Facilities, the Regional Amenities or The Alexandria.

Tenant acknowledges and agrees that The Alexandria Landlord shall have the right at any time and from time to time to reconfigure, relocate, modify or remove any of the Regional Amenities at The Alexandria and/or to revise, expand or discontinue any of the services (if any) provided in connection with the Regional Amenities.

(f) **Waiver of Liability and Indemnification**. Tenant warrants that it will use reasonable care to prevent damage to property and injury to persons while on The Alexandria. To the extent permitted by applicable Legal Requirements, Tenant waives any claims it or any Tenant Parties may have against any ARE Parties relating to, arising out of or in connection with the Regional Amenities and any entry by Tenant and/or any Tenant Parties onto The Alexandria, and Tenant releases and exculpates all ARE Parties from any liability relating to, arising out of or in connection with the Regional Amenities and any entry by Tenant and/or any Tenant Parties onto The Alexandria. Tenant hereby agrees to indemnify, defend, and hold harmless the ARE Parties from any claim of damage to property or injury to person relating to, arising out of or in connection with (i) the use of the Regional Amenities by Tenant or any Tenant Parties, and (ii) any entry by Tenant and/or any Tenant Parties onto The Alexandria, except to the extent caused by the negligence or willful misconduct of ARE Parties. The provisions of this Section 41(f) shall survive the expiration or earlier termination of this Lease.

42. **Alternative Premises**. If at any time during the Term of this Lease, Tenant is considering leasing additional or alternative space in the San Diego area, Tenant shall deliver written notice ("**Premises Notice**") to Landlord, which Premises Notice shall include a description of the additional or alternative space desired by Tenant. Tenant agrees that Landlord shall have the right, if it so elects and without any obligation to do so, within 45 days following such notice, prior to Tenant going out to the market to seek any such additional or alternative space, to offer Tenant additional or alternative premises which satisfy in part or in its entirety the premises being sought by Tenant ("**Alternative Premises**") on market terms at the Project or, if Landlord so elects, at another property in the San Diego area owned or controlled by an entity controlled by, under common control with, or controlling Landlord including, without limitation, any of the constituent members of Landlord or Alexandria Real Estate Equities, Inc. (any such entity, an "**Affiliate**"). Landlord and/or any Affiliate, as the case may be, shall have the right, if it so elects and without any obligation to do so, to acquire a new project or redevelop any existing project it then owns to provide the Alternative Premises. Tenant shall consider in good faith any Alternative Premises offered to Tenant by Landlord (or its Affiliate), but Tenant shall have no obligation to enter into a new lease for such Alternative Premises with Landlord (or its Affiliate).

If Landlord (or its Affiliate) and Tenant identify an Alternative Premises acceptable to Tenant, Landlord (or its Affiliate) and Tenant shall use good faith efforts to negotiate and enter into a new lease for such Alternative Premises. Such new lease shall otherwise be upon terms and conditions acceptable to Landlord or Affiliate, as the case may be, and Tenant, each in their sole and absolute discretion. If the parties are unable in a reasonable period of time to (x) identify an Alternative Premises reasonably acceptable to Tenant or (y) come to agreement on a new lease, then Tenant shall be free to pursue any other lease options that it elects. If Landlord (or its Affiliate) and Tenant fail to identify an Alternative Premises acceptable to Tenant, then Tenant shall be free to pursue any other lease options that it elects. The provisions of this Section 43 shall only apply so long as ARE-3535/3565 General Atomics Court, LLC, or an Affiliate is the owner of the Project.

43. **Satellite Dish**. As long as Tenant is not in default under this Lease, Tenant shall have the right at its sole cost and expense, subject to compliance with all Legal Requirements, to install, maintain, and remove on the top of the roof of the Building (based on Tenant's proportionate share of the space available on the roof) in a location designated by Landlord one satellite dish, microwave dish, communication antennae (all of which having a diameter and height acceptable to Landlord) for the transmission or reception of communication of signals as Tenant may from time to time desire (collectively, the "**Satellite Dish**") on the following terms and conditions:

(a) **Requirements**. Tenant shall submit to Landlord (i) the plans and specifications for the installation of the Satellite Dish, (ii) copies of all required governmental and quasi-governmental permits, licenses, and authorizations that Tenant will and must obtain at its own expense, with the cooperation of Landlord, if necessary for the installation and operation of the Satellite Dish, and (iii) an insurance policy or certificate of insurance evidencing insurance coverage as required by this Lease and any other insurance as reasonably required by Landlord for the installation and operation of the Satellite Dish. Landlord shall not unreasonably withhold or delay its approval for the installation and operation of the Satellite Dish; provided, however, that Landlord may reasonably withhold its approval if the installation or operation of the Satellite Dish (A) may damage the structural integrity of the Building, (B) may void, terminate, or invalidate any applicable roof warranty, (C) may interfere with any service provided by Landlord or any tenant of the Building, (D) may reduce the leasable space in the Building, (E) is not properly screened from the viewing public, or (F) is not permitted under applicable Legal Requirements or any existing contractual requirements.

(b) **No Damage to Roof**. If installation of the Satellite Dish requires Tenant to make any roof cuts or perform any other roofing work, such cuts shall only be made to the roof area of the Building in locations approved in writing by Landlord and in the manner designated in writing by Landlord; and any such installation work (including any roof cuts or other roofing work) shall be performed by Tenant, at Tenant's sole cost and expense by a roofing contractor designated by Landlord. If Tenant or its agents shall otherwise cause any damage to the roof during the installation, operation, and removal of the Satellite Dish such damage shall be repaired promptly at Tenant's expense and the roof shall be restored in the same condition it was in before the damage. Landlord shall not charge Tenant Additional Rent for the installation and use of the Satellite Dish. If, however, Landlord's insurance premium or Tax assessment increases as a result of the Satellite Dish, Tenant shall pay such increase as Additional Rent within ten (10) days after receipt of a reasonably detailed invoice from Landlord. Tenant shall not be entitled to any abatement or reduction in the amount of Rent payable under this Lease if for any reason Tenant is unable to use the Satellite Dish. In no event whatsoever shall the installation, operation, maintenance, or removal of the Satellite Dish by Tenant or its agents void, terminate, or invalidate any applicable roof warranty.

(c) **Protection**. The installation, operation, and removal of the Satellite Dish shall be at Tenant's sole risk. Tenant shall indemnify, defend, and hold Landlord harmless from and against any and all claims, costs, damages, liabilities and expenses (including, but not limited to, attorneys' fees) of every kind and description that may arise out of or be connected in any way with Tenant's installation, operation, or removal of the Satellite Dish.

(d) **Removal**. At the expiration or earlier termination of this Lease or the discontinuance of the use of the Satellite Dish by Tenant, Tenant shall, at its sole cost and expense, remove the Satellite Dish from the Building. Tenant shall leave the portion of the roof where the Satellite Dish was located in good order and repair, reasonable wear and tear excepted. If Tenant does not so remove the Satellite Dish, such Satellite Dish shall be deemed abandoned and may, at Landlord's election, be stored, removed, and disposed of by Landlord at Tenant's expense, and Tenant waives all claims against Landlord for any damages or loss resulting from Landlord's retention and/or disposition of the Satellite Dish.

(e) **No Interference**. The Satellite Dish shall not interfere with the proper functioning of any telecommunications equipment or devices that have been installed or will be installed by Landlord or for any other tenant or future tenant of the Building. Tenant acknowledges that other tenant(s) may have approval rights over the installation and operation of telecommunications equipment and devices on or about the roof, and that Tenant's right to install and operate the Satellite Dish is subject and subordinate to the rights of such other tenants. Tenant agrees that any other tenant of the Building that currently has or in the future takes possession of any portion of the Building will be permitted to install such telecommunication equipment that is of a type and frequency that will not cause unreasonable interference to the Satellite Dish**.**

(f) **Relocation**. Landlord shall have the right, at its expense and after 60 days prior notice to Tenant, to relocate the Satellite Dish to another site on the roof of the Building as long as such site reasonably meets Tenant's sight line and interference requirements and does not unreasonably interfere with Tenant's use and operation of the Satellite Dish.

(g) **Access**. Landlord grants to Tenant the right of ingress and egress on a 24 hour 7 day per week basis to install, operate, and maintain the Satellite Dish. Before receiving access to the roof of the Building, Tenant shall give Landlord at least 24 hours' advance written or oral notice, except in emergency situations, in which case 2 hours' advance oral notice shall be given by Tenant. Landlord shall supply Tenant with the name, telephone, and pager numbers of the contact individual(s) responsible for providing access during emergencies.

(h) **Appearance**. If permissible by Legal Requirements, the Satellite Dish shall be painted the same color as the Building so as to render the Satellite Dish virtually invisible from ground level.

(i) **No Assignment**. The right of Tenant to use and operate the Satellite Dish shall be personal solely to Pipeline Therapeutics, Inc., and (i) no other person or entity shall have any right to use or operate the Satellite Dish, and (ii) Tenant shall not assign, convey, or otherwise transfer to any person or entity any right, title, or interest in all or any portion of the Satellite Dish or the use and operation thereof, except that it may be assigned in connection with any Permitted Assignment of this Lease.

44. **Miscellaneous**.

(a) **Notices**. All notices or other communications between the parties shall be in writing and shall be delivered by (i) reputable overnight guaranty courier, (ii) hand delivery with signature confirming receipt, or (iii) email transmission to the email address set forth in the Basic Lease Provisions for the applicable party, which email includes in the subject line (x) the Project address, (y) Tenant name and (z) "NOTICE UNDER LEASE" in all caps, provided a hard copy of any email notice is also sent the same day by one of the delivery methods provided in sub-sections (i) or (ii) (each, a "**Follow Up Notice**"). Notices delivered pursuant to the delivery methods provided in sub-sections (i) or (ii) shall be deemed duly given when actually received by the addressee or when delivery thereof is refused. Notices delivered via email and sent during the hours of 8:00 a.m. and 3:00 p.m. PST shall be deemed duly given on the day sent; provided, however, that any email notice delivered on a Saturday, Sunday or legal holiday observed in the State of California, or after 3:00 p.m. PST shall be deemed given on the next day that is not a Saturday, Sunday or legal holiday observed in the State of California. For the avoidance of doubt, for an email notice to be effective as provided in the immediately preceding sentence, a Follow Up Notice must be delivered to the addressee of the email notice within 48 hours of the date that the email notice is delivered. If a Follow

Up Notice is not received within such 48-hour period, actual notice will be deemed to have been given on the date that the Follow Up Notice is delivered rather than on the date of delivery of the email notice. Notwithstanding anything to the contrary contained herein, notice sent via email shall in no event constitute a notice hereunder if the sender receives notice or otherwise has knowledge that the email notice was not properly transmitted or otherwise received by the addressee. All notices shall be delivered to the parties at their addresses set forth in the Basic Lease Provisions. Landlord and Tenant may from time to time by written notice to the other designate another address for receipt of future notices.

(b) **Joint and Several Liability**. If and when included within the term "**Tenant**," as used in this instrument, there is more than one person or entity, each shall be jointly and severally liable for the obligations of Tenant.

(c) **Financial Information**. Tenant shall furnish Landlord with true and complete copies of (i) upon Landlord's written request on an annual basis, Tenant's most recent audited annual financial statements within 90 days of the end of each of Tenant's fiscal years during the Term, (ii) upon Landlord's written request on a quarterly basis, Tenant's most recent unaudited quarterly financial statements within 45 days of the end of each of Tenant's first three fiscal quarters of each of Tenant's fiscal years during the Term, (iii) upon Landlord's request from time to time, updated business plans, including cash flow projections and/or pro forma balance sheets and income statements, all of which shall be treated by Landlord as confidential information belonging to Tenant, (iv) upon Landlord's written request from time to time, corporate brochures and/or profiles prepared by Tenant for prospective investors, and (v) upon Landlord's written request from time to time, any other financial information or summaries that Tenant typically provides to its lenders or shareholders. Notwithstanding anything to the contrary contained in this Lease, Landlord's written request for financial information pursuant to this Section 44(c) may delivered to Tenant via email. So long as Tenant is a "public company" and its financial information is publicly available, then the foregoing delivery requirements of this Section 44(c) shall not apply.

Landlord agrees to hold the financial statements and other financial information provided under this section in confidence using at least the same degree of care that Landlord uses to protect its own confidential information of a similar nature; provided, however, that Landlord may disclose such information to Landlord's auditors, attorneys, consultants, lenders, affiliates, prospective purchasers and investors and other third parties as reasonably required in the ordinary course of Landlord's operations, provided that Landlord shall request that such parties treat the information as confidential. The obligations of confidentiality hereunder shall not apply to information that was in the public domain at the time it was disclosed to Landlord, entered into the public domain subsequent to the time it was disclosed to Landlord through no fault of Landlord, or was disclosed by Tenant to a third party without any confidentiality restrictions. In addition, Landlord may disclose such information without violating this section to the extent that disclosure is reasonably necessary (x) for Landlord to enforce its rights or defend itself under this Lease; (y) for required submissions to any state or federal regulatory body; or (z) for compliance with a valid order of a court or other governmental body having jurisdiction, or any law, statute, or regulation, provided that, other than in an emergency, before disclosing such information, Landlord shall give Tenant 5 business days' prior notice of the same to allow Tenant to obtain a protective order or such other judicial relief.

(d) **Recordation**. Neither this Lease nor a memorandum of lease shall be filed by or on behalf of Tenant in any public record. Landlord may prepare and file, and upon request by Landlord Tenant will execute, a memorandum of lease.

(e) **Interpretation**. The normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Lease or any exhibits or amendments hereto. Words of any gender used in this Lease shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, unless the context otherwise requires. The captions inserted in this Lease are for convenience only and in no way define, limit or otherwise describe the scope or intent of this Lease, or any provision hereof, or in any way affect the interpretation of this Lease.

(f) **Not Binding Until Executed**. The submission by Landlord to Tenant of this Lease shall have no binding force or effect, shall not constitute an option for the leasing of the Premises, nor confer any right or impose any obligations upon either party until execution of this Lease by both parties.

(g) **Limitations on Interest**. It is expressly the intent of Landlord and Tenant at all times to comply with applicable law governing the maximum rate or amount of any interest payable on or in connection with this Lease. If applicable law is ever judicially interpreted so as to render usurious any interest called for under this Lease, or contracted for, charged, taken, reserved, or received with respect to this Lease, then it is Landlord's and Tenant's express intent that all excess amounts theretofore collected by Landlord be credited on the applicable obligation (or, if the obligation has been or would thereby be paid in full, refunded to Tenant), and the provisions of this Lease immediately shall be deemed reformed and the amounts thereafter collectible hereunder reduced, without the necessity of the execution of any new document, so as to comply with the applicable law, but so as to permit the recovery of the fullest amount otherwise called for hereunder.

(h) **Choice of Law**. Construction and interpretation of this Lease shall be governed by the internal laws of the state in which the Premises are located, excluding any principles of conflicts of laws.

(i) **Time**. Time is of the essence as to the performance of Tenant's and Landlord's obligations under this Lease.

(j) **OFAC**. Tenant is currently (a) in compliance with and shall at all times during the Term of this Lease remain in compliance with the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S. Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the term of this Lease be listed on, the Specially Designated Nationals and Blocked Persons List, Foreign Sanctions Evaders List, or the Sectoral Sanctions Identification List, which are all maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

(k) **Incorporation by Reference**. All exhibits and addenda attached hereto are hereby incorporated into this Lease and made a part hereof. If there is any conflict between such exhibits or addenda and the terms of this Lease, such exhibits or addenda shall control.

(l) **Entire Agreement**. This Lease, including the exhibits attached hereto, constitutes the entire agreement between Landlord and Tenant pertaining to the subject matter hereof and supersedes all prior and contemporaneous agreements, understandings, letters of intent, negotiations and discussions, whether oral or written, of the parties, and there are no warranties, representations or other agreements, express or implied, made to either party by the other party in connection with the subject matter hereof except as specifically set forth herein.

(m) **No Accord and Satisfaction**. No payment by Tenant or receipt by Landlord of a lesser amount than the monthly installment of Base Rent or any Additional Rent will be other than on account of the earliest stipulated Base Rent and Additional Rent, nor will any endorsement or statement on any check or letter accompanying a check for payment of any Base Rent or Additional Rent be an accord and satisfaction. Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or to pursue any other remedy provided in this Lease.

(n) **Landlord's Proprietary Operations**. Tenant further acknowledges that Landlord's business operations are proprietary to Landlord. Absent prior written consent from Landlord, Tenant shall hold confidential and will not disclose to third parties, and shall require Tenant Parties to hold confidential and not disclose to third parties, information regarding the systems, controls, equipment, programming, vendors, tenants, and specialized amenities of Landlord. Tenant shall notify Landlord immediately if Tenant becomes aware of any third party contacting Tenant or any Tenant Parties requesting information regarding Landlord's business operations.

(o) **Hazardous Activities**. Notwithstanding any other provision of this Lease, Landlord, for itself and its employees, agents and contractors, reserves the right to refuse to perform any repairs or services in any portion of the Premises which, pursuant to Tenant's routine safety guidelines, practices or custom or prudent industry practices, require any form of protective clothing or equipment other than safety glasses. In any such case, Tenant shall contract with parties who are acceptable to Landlord, in Landlord's reasonable discretion, for all such repairs and services, and Landlord shall, to the extent required, equitably adjust Tenant's Share of Operating Expenses in respect of such repairs or services to reflect that Landlord is not providing such repairs or services to Tenant.

(p) **Redevelopment of Project**. Tenant acknowledges that Landlord, in its sole discretion, may from time to time, subject to the fifth sentence of Section 1 of this Lease, expand, renovate and/or reconfigure the Project as the same may exist from time to time and, in connection therewith or in addition thereto, as the case may be, from time to time without limitation: (a) change the shape, size, location, number and/or extent of any improvements, buildings, structures, lobbies, hallways, entrances, exits, parking and/or parking areas relative to any portion of the Project; (b) modify, eliminate and/or add any buildings, improvements, and parking structure(s) either above or below grade, to the Project, the Common Areas and/or any other portion of the Project and/or make any other changes thereto affecting the same; and (c) make any other changes, additions and/or deletions in any way affecting the Project and/or any portion thereof as Landlord may elect from time to time, including without limitation, additions to and/or deletions from the land comprising the Project, the Common Areas and/or any other portion of the Project. Tenant acknowledges and agrees that construction noise, vibrations and dust associated with normal construction activities in connection with any redevelopment of the Project are to be expected during the course of such construction. Notwithstanding anything to the contrary contained in this Lease, Tenant shall have no right to seek damages (including abatement of Rent) or to cancel or terminate this Lease because of any proposed changes, expansion, renovation or reconfiguration of the Project nor shall Tenant have the right to restrict, inhibit or prohibit any such changes, expansion, renovation or reconfiguration; provided, however, Landlord shall not change the size, dimensions, location or Tenant's Permitted Use of the Premises. Landlord shall use commercially reasonable efforts to minimize interruption with Tenant's operations in the Premises in connection with any redevelopment of the Project pursuant to this Section 44(p).

(q) **EV Charging Stations**. To the extent that the Project is not exempt Section 1952.7 of the California Civil Code, Landlord shall not unreasonably withhold its consent to Tenant's written request to install 1 or more electric vehicle car charging stations ("**EV Stations**") in the parking area serving the Project; provided, however, that Tenant complies with all reasonable requirements, standards, rules and regulations which may be imposed by Landlord, at the time Landlord's consent is granted, in connection with Tenant's installation, maintenance, repair and operation of such EV Stations, which may include, without limitation, the charge to Tenant of a reasonable monthly rental amount for the parking spaces used by Tenant for such EV Stations, Landlord's designation of the location of Tenant's EV Stations, and Tenant's payment of all costs whether incurred by Landlord or Tenant in connection with the installation, maintenance, repair and operation of each Tenant's EV Station(s). Nothing contained in this paragraph is intended to increase the number of parking spaces which Tenant is otherwise entitled to use at the Project under Section 10 of this Lease nor impose any additional obligations on Landlord with respect to Tenant's parking rights at the Project.

(r) **California Accessibility Disclosure**. For purposes of Section 1938(a) of the California Civil Code, Landlord hereby discloses to Tenant, and Tenant hereby acknowledges, that the Project has not undergone inspection by a Certified Access Specialist (CASp). In addition, the following notice is hereby provided pursuant to Section 1938(e) of the California Civil Code: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the

lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." In furtherance of and in connection with such notice: (i) Tenant, having read such notice and understanding Tenant's right to request and obtain a CASp inspection, hereby elects not to obtain such CASp inspection and forever waives its rights to obtain a CASp inspection with respect to the Premises, Building and/or Project to the extent permitted by Legal Requirements; and (ii) if the waiver set forth in clause (i) hereinabove is not enforceable pursuant to Legal Requirements, then Landlord and Tenant hereby agree as follows (which constitutes the mutual agreement of the parties as to the matters described in the last sentence of the foregoing notice): (A) Tenant shall have the one-time right to request for and obtain a CASp inspection, which request must be made, if at all, in a written notice delivered by Tenant to Landlord; (B) any CASp inspection timely requested by Tenant shall be conducted (1) at a time mutually agreed to by Landlord and Tenant, (2) in a professional manner by a CASp designated by Landlord and without any testing that would damage the Premises, Building or Project in any way, and (3) at Tenant's sole cost and expense, including, without limitation, Tenant's payment of the fee for such CASp inspection, the fee for any reports prepared by the CASp in connection with such CASp inspection (collectively, the "**CASp Reports**") and all other costs and expenses in connection therewith; (C) the CASp Reports shall be delivered by the CASp simultaneously to Landlord and Tenant; (D) Tenant, at its sole cost and expense, shall be responsible for making any improvements, alterations, modifications and/or repairs to or within the Premises to correct violations of construction-related accessibility standards including, without limitation, any violations disclosed by such CASp inspection; and (E) if such CASp inspection identifies any improvements, alterations, modifications and/or repairs necessary to correct violations of construction-related accessibility standards relating to those items of the Building and Project located outside the Premises that are Landlord's obligation to repair as set forth in this Lease, then Landlord shall perform such improvements, alterations, modifications and/or repairs as and to the extent required by Legal Requirements to correct such violations, and Tenant shall reimburse Landlord for the cost of such improvements, alterations, modifications and/or repairs within 10 business days after Tenant's receipt of an invoice therefor from Landlord.

(s) **Shuttle Services**. Landlord and affiliates of Landlord plan to provide a campus shuttle service for the Project and other buildings in the vicinity of the Project that are owned by affiliates of Landlord (the "**Shuttle Service**"); provided, however, that neither Landlord nor any affiliate of Landlord shall be obligated to provide the Shuttle Service (or, once the Shuttle Service has commenced, to continue providing the Shuttle Service for any specific period of time) or to cause the Shuttle Service to follow any specific route, make any specific stops, or adhere to any specific schedule or hours of operation. If Landlord and affiliates of Landlord actually commence operation of the Shuttle Service, (i) Landlord shall give Tenant written notice of the date such operation will commence ("**Shuttle Services Commencement Date**") and the planned route, stops, schedule, and hours of operation, (ii) Landlord shall permit Tenant's employees actually employed at the Project to use the Shuttle Service, and (iii) regardless of whether Tenant's employees use the Shuttle Services, commencing on later to occur of (x) the Shuttle Services Commencement Date, or the Commencement Date, through the earlier of the expiration of the Term or the date that Landlord permanently ceases to provide Shuttle Service, Operating Expenses shall include the cost of provision the Shuttle Service (the "**Shuttle Service Costs**"). Tenant acknowledges and agrees that Landlord has not made any representations or warranties regarding the commencement or continued availability of the Shuttle Service and that Tenant is not entering into this Lease with an expectation that the Shuttle Service shall commence or continue to be available to Tenant throughout the Term.

(t) **Counterparts**. This Lease may be executed in 2 or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via electronic mail (including pdf or any electronic signature process complying with the U.S. federal ESIGN Act of 2000) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes. Electronic signatures shall be deemed original signatures for purposes of this Lease and all matters related thereto, with such electronic signatures having the same legal effect as original signatures.

(u) **Nitrogen Tank**. Subject to the terms of the Work Letter, in connection with Tenant's use and occupancy of the Premises, Tenant shall have the right to install, at Tenant's sole cost and expense, one nitrogen tank exclusively serving the Premises, not to exceed not to exceed a size of 1,500 gallons (the "**N2 Tank**") in the portion of the Project identified on **Exhibit L** attached hereto (the "**N2 Tank Area**"). Landlord shall construct, at Landlord's sole cost, the pad, enclosure and infrastructure required for Tenant's N2 Tank as set forth in the Work Letter. Tenant shall be required to enter a contract with a vendor to provide nitrogen to the N2 Tank when needed, which contract shall be in form and substance reasonably satisfactory to Landlord, with copies to Landlord upon Landlord's written request, with a vendor reasonably acceptable to Landlord. In addition, Tenant shall have all of the obligations under the Lease with respect to the N2 Tank and the N2 Tank Area as though N2 Tank and the N2 Tank Area were part of the Premises, excluding the obligation to pay Base Rent or Operating Expenses. If the N2 Tank Area is located within the parking areas of the Project, the number of parking spaces allocated to Tenant pursuant to Section 10 shall be reduced by the number of parking spaces impacted by the N2 Tank Area. Tenant shall maintain appropriate records, obtain and maintain appropriate insurance, implement reporting procedures, and take or cause to be taken all other actions necessary or required under applicable Legal Requirements in connection with the use of the N2 Tank and the N2 Tank Area. Landlord shall have no obligation to make any repairs or other improvements to the N2 Tank or the N2 Tank Area and Tenant shall maintain the same, at Tenant's sole cost and expense, in substantially the same condition as received during the Term as though the same were part of the Premises. Notwithstanding the foregoing, Landlord shall maintain, at no cost to Tenant except as part of Operating Expenses, the pad for the N2 Tank Area and the gas lines from the N2 Tank to and through the Premises. Tenant shall, at Tenant's sole cost and expense, remove the N2 Tank and surrender the N2 Tank Area at the expiration or earlier termination of the term of the Lease free of any debris and trash and free of any Hazardous Materials in accordance with the requirements of Section 28 of this Lease, including the delivery of a Decommissioning and HazMat Closure Plan at the expiration or earlier termination of the Term. Notwithstanding anything contained in this Lease to the contrary, Landlord shall have the right to relocate the N2 Tank and the N2 Tank Area to another area in the Project reasonably designated by Landlord upon prior written notice thereof to Tenant, provided that Landlord shall pay the reasonable costs of relocating the N2 Tank and N2 Tank Area.

(v) **Prevailing Party's Fees**. In the event that either party should bring suit or commence any suit or proceeding related to this Lease against the other party, then all reasonable costs and expenses, including reasonable attorneys' fees and expert fees, incurred by the prevailing party relating to such legal action shall be paid by the other party, which obligation on the part of the other party shall be deemed to have accrued on the date of the commencement of such action and shall be enforceable whether or not the action is prosecuted to judgment.

(w) **Landlord Lien Waiver**. Subject to the provisions of this paragraph, during the Term, Landlord waives any statutory landlord's lien and any attachment for Rent on Tenant's Property and on any Alteration of Tenant that is not required to be surrendered to Landlord at the expiration or sooner termination of the Term of this Lease (collectively, "**Personalty**") that Landlord may have or may hereafter acquire. Landlord acknowledges and agrees that Tenant's Personalty may be leased from an equipment lessor or encumbered by Tenant's lender (collectively, "**Equipment Lessor**") and that Tenant may execute and enter into an equipment lease or security agreement with respect to such Personalty ("**Equipment Lease**"). If and to the extent required by any Equipment Lease or Equipment Lessor, Landlord shall execute and deliver to the Equipment Lessor a written consent, waiver and/or acknowledgment which is in form and content reasonably acceptable to Landlord ("**Lien Waiver**") in which Landlord (i) acknowledges and agrees that, during the Term, the Personalty which is the subject of the Equipment Lease and described with specificity on an exhibit to the Lien Waiver constitutes the personal property of Tenant (unless contrary to the provisions of this Lease), and shall not be considered to be part of the Premises, regardless of whether or by what means they become attached thereto, (ii) agrees that, during the Term, it shall not claim any interest in such Personalty, and (iii) agrees that Equipment Lessor may enter the Premises for the purpose of removing such Personalty, but only if, in such consent such Equipment Lessor agrees to repair any damage resulting from such removal and to indemnify and hold harmless Landlord from and against any claim or other loss that results from such entry and, agrees, within 3 business days after the expiration or termination of the Term to pay all Rent that would accrue under this Lease if it had not terminated or expired

for the period from the expiration or termination of such Lease until 5 business days after such Equipment Lessor relinquishes its right rights to enter into the Premises; provided, further, such Equipment Lessor's right to enter the Premises shall in any event expire 30 days after the expiration or termination of this Lease in which case the Equipment Lessor and Tenant shall agree that the Personalty shall be deemed abandoned. Such Lien Waiver documents also may contain such other reasonable and customary provisions that are reasonably acceptable to Landlord. Landlord shall be entitled to be paid as administrative rent a fee of $1,000 per occurrence for its time and effort in preparing and negotiating each Lien Waiver.

(x) **Storage Area**. Commencing on the Commencement Date, Tenant shall have the right during the Term to use that certain portion of the Building's basement parking area identified on **Exhibit M** (the "**Storage Area**") for the storage of Tenant's property and for no other use or purpose. Tenant may not store any Hazardous Materials in the Storage Area. Tenant acknowledges and agrees that, as of the Commencement Date, all of Tenant's obligations under the Lease shall apply with respect to the Storage Area as though the Storage Area were part of the Premises, except for the obligation to pay Base Rent and Operating Expenses. Landlord shall have no obligation to make any repairs or other improvements to the Storage Area and Tenant shall maintain the same, at Tenant's sole cost and expense, in substantially the same condition as received during the term as though the same were part of the Premises. Tenant shall not make any alterations, additions, or improvements to Storage Area of any kind whatsoever. Tenant shall, at Tenant's sole cost and expense, surrender the Storage Area at the expiration or earlier termination of the term of the Lease free of any debris and trash and free of any Hazardous Materials in accordance with the requirements of Section 28 of this Lease.

[Signatures on next page]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the day and year first above written.

TENANT:

PIPELINE THERAPEUTICS, INC.,
a Delaware corporation

By: /s/ Peter Slover
Name: Peter Slover
Its: Chief Financial Officer

☒ I hereby certify that the signature, name, and title above are my signature, name and title

LANDLORD:

ARE-3535/3565 GENERAL ATOMICS COURT, LLC,
a Delaware limited liability company

By: Alexandria Real Estate Equities, Inc.,
a Maryland corporation, managing member

By: /s/ Gary Dean
Name: Gary Dean
Its: Executive Vice President – Real Estate Legal Affairs

EXHIBIT A TO LEASE

DESCRIPTION OF PREMISES

[omitted]

EXHIBIT B-1 TO LEASE

DESCRIPTION OF PROPERTY

[omitted]

EXHIBIT B-2 TO LEASE

DESCRIPTION OF PROJECT

[omitted]

EXHIBIT C TO LEASE

WORK LETTER

[omitted]

EXHIBIT D TO LEASE

ACKNOWLEDGMENT OF COMMENCEMENT DATE

[omitted]

EXHIBIT E TO LEASE

Rules and Regulations

[omitted]

EXHIBIT F TO LEASE

TENANT'S PERSONAL PROPERTY

[omitted]

EXHIBIT G TO LEASE

MAINTENANCE OBLIGATIONS

[omitted]

EXHIBIT H TO LEASE

CONTROL AREA

[omitted]

EXHIBIT I TO LEASE

TENANT'S SIGNAGE

[omitted]

EXHIBIT J TO LEASE

ROFR SPACE

[omitted]

EXHIBIT K-1 TO LEASE

EXISTING FF&E

[omitted]

EXHIBIT K-2 TO LEASE

REMOVABLE FF&E LIST

[omitted]

EXHIBIT K-3 TO LEASE

REMOVABLE FF&E SPACE PLAN

[omitted]

EXHIBIT L TO LEASE

NITROGEN TANK STORAGE AREA

[omitted]

EXHIBIT M TO LEASE

STORAGE AREA

[omitted]

LOAN AND SECURITY AGREEMENT

THIS LOAN AND SECURITY AGREEMENT (this "**Agreement**") dated and effective as of September 1, 2020 (the "**Effective Date**") between **SILICON VALLEY BANK**, a California corporation ("**Bank**"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("**Borrower**"), provides the terms on which Bank shall lend to Borrower and Borrower shall repay Bank. The parties agree as follows:

1 ACCOUNTING AND OTHER TERMS

Accounting terms not defined in this Agreement shall be construed following GAAP. Calculations and determinations must be made following GAAP. Capitalized terms not otherwise defined in this Agreement shall have the meanings set forth in Section 13. All other terms contained in this Agreement, unless otherwise indicated, shall have the meaning provided by the Code to the extent such terms are defined therein.

2 LOAN AND TERMS OF PAYMENT

2.1 Promise to Pay. Borrower hereby unconditionally promises to pay Bank the outstanding principal amount of all Credit Extensions and accrued and unpaid interest thereon as and when due in accordance with this Agreement.

2.1.1 Term Loans.

(a) Availability. Subject to the satisfaction of the terms and conditions of this Agreement, on the Effective Date, Bank shall make one (1) term loan available to Borrower in an original principal amount equal to Five Million Dollars ($5,000,000) (the "**Term A Loan**"). During the Term B Draw Period, subject to the terms and conditions of this Agreement, Borrower may request and Bank shall make one (1) term loan available to Borrower in an original principal amount equal to Five Million Dollars ($5,000,000) (the "**Term B Loan**").

(b) Repayment. The Term Loans shall be "interest only" during the Interest-Only Period, with interest due and payable on the first day of each month. Beginning on the Amortization Start Date, and continuing on the first day of each month thereafter, Borrower shall repay the Term Loans in equal monthly installments of principal plus interest (the "**Term Loan Payment**") in a repayment schedule equal to (i) thirty (30) months if the Amortization Date is January 1, 2022, or (ii) twenty-four (24) months if the Amortization Start Date is July 1, 2022. Borrower's final Term Loan Payment, due on the Term Loan Maturity Date, shall include all outstanding principal and accrued and unpaid interest under the Term Loans and the Final Payment. Once repaid, the Term Loans may not be reborrowed.

(c) Prepayment.

(i) Voluntary. Borrower shall have the option to prepay all, but not less than all of the Term Loans advanced by Bank under this Agreement, provided Borrower (a) delivers written notice to Bank of its election to prepay the Term Loans at least five (5) Business Days prior to such prepayment (or such shorter period as agreed by Bank) and (b) pays, on the date of such prepayment, (i) all outstanding principal, plus accrued and unpaid interest with respect to the Term Loans, (ii) the Prepayment Fee, (iii) the Final Payment, and (iv) all other sums, if any, that shall have become due and payable hereunder in connection with the Term Loans.

(ii) Involuntary. If the Term Loans are accelerated during the continuance of an Event of Default, Borrower shall immediately pay to Bank an amount equal to the sum of (a) all outstanding principal, plus accrued and unpaid interest with respect to the Term Loans, (b) the Prepayment Fee, (c) the Final Payment, and (c) all other sums, if any, that shall have become due and payable hereunder in connection with the Term Loans.

2.2 Intentionally Omitted.

2.3 Payment of Interest on the Credit Extensions.

(a) Interest Rate on the Term Loans. Subject to Section 2.3(b), the principal amount outstanding under the Term Loans shall accrue interest at a floating per annum rate equal to the greater of (i) one quarter percentage point (0.25%) above the Prime Rate or (ii) three and one half percentage points (3.50%), which interest shall be payable monthly in accordance with Section 2.3(d) below.

(b) Default Rate. Immediately upon the occurrence and during the continuance of an Event of Default, Obligations shall bear interest at a rate per annum which is five percentage points (5.0%) above the rate that is otherwise applicable thereto (the "**Default Rate**"). Fees and expenses which are required to be paid by Borrower pursuant to the Loan Documents (including, without limitation, Bank Expenses) but are not paid when due shall bear interest until paid at a rate equal to the highest rate applicable to the Obligations. Payment or acceptance of the increased interest rate provided in this Section 2.3(b) is not a permitted alternative to timely payment and shall not constitute a waiver of any Event of Default or otherwise prejudice or limit any rights or remedies of Bank.

(c) Adjustment to Interest Rate. Changes to the interest rate of any Credit Extension based on changes to the Prime Rate shall be effective on the effective date of any change to the Prime Rate and to the extent of any such change.

(d) Payment; Interest Computation. Interest is payable monthly on the first calendar day of each month and shall be computed on the basis of a 360-day year for the actual number of days elapsed. In computing interest, (i) all payments received after 12:00 p.m. Pacific time on any day shall be deemed received at the opening of business on the next Business Day, and (ii) the date of the making of any Credit Extension shall be included and the date of payment shall be excluded; provided, however, that if any Credit Extension is repaid on the same day on which it is made, such day shall be included in computing interest on such Credit Extension.

2.4 Fees. Borrower shall pay to Bank:

(a) Prepayment Fee. The Prepayment Fee, when due hereunder pursuant to the terms of Section 2.1.1(c); provided, however, the parties hereby agree that there shall be no Prepayment Fee due and payable by Borrower to the Bank hereunder if Borrower prepays all, but not less than all, of the outstanding Term Loan in connection with new loans made by Bank and no other lender(s);

(b) Final Payment. The Final Payment, when due hereunder;

(c) Bank Expenses. All Bank Expenses (including reasonable attorneys' fees and expenses for documentation and negotiation of this Agreement) incurred through and after the Effective Date, when due (or, if no stated due date, upon demand by Bank).

(d) Good Faith Deposit. Borrower has paid to Bank a good faith deposit of Twenty Thousand Dollars ($20,000) (the "**Good Faith Deposit**") to initiate Bank's due diligence review process, which amount shall be applied to Bank Expenses on the Effective Date with any remaining amount to be refunded to Borrower.

(e) Fees Fully Earned. Unless otherwise provided in this Agreement or in a separate writing by Bank, Borrower shall not be entitled to any credit, rebate, or repayment of any fees earned by Bank pursuant to this Agreement notwithstanding any termination of this Agreement or the suspension or termination of Bank's obligation to make loans and advances hereunder. Bank may deduct amounts owing by Borrower under the clauses of this Section 2.4 pursuant to the terms of Section 2.5(c). Bank shall provide Borrower written notice of deductions made from the Designated Deposit Account pursuant to the terms of the clauses of this Section 2.4.

2.5 Payments; Application of Payments; Debit of Accounts.

(a) All payments to be made by Borrower under any Loan Document shall be made in immediately available funds in Dollars, without setoff or counterclaim, before 12:00 p.m. Pacific time on the date when due. Payments of principal and/or interest received after 12:00 p.m. Pacific time are considered received at the opening of business on the next Business Day. When a payment is due on a day that is not a Business Day, the

payment shall be due the next Business Day, and additional fees or interest, as applicable, shall continue to accrue until paid.

(b) Bank has the exclusive right to determine the order and manner in which all payments with respect to the Obligations may be applied. Borrower shall have no right to specify the order or the accounts to which Bank shall allocate or apply any payments required to be made by Borrower to Bank or otherwise received by Bank under this Agreement when any such allocation or application is not specified elsewhere in this Agreement.

(c) Bank may debit any of Borrower's deposit accounts, including the Designated Deposit Account, for (i) principal and interest payments when due or (ii) upon written notice to Borrower, of any other amounts Borrower owes Bank when due. These debits shall not constitute a set-off.

2.6 Withholding. Payments received by Bank from Borrower under this Agreement will be made free and clear of and without deduction for any and all present or future taxes, levies, imposts, duties, deductions, withholdings, assessments, fees or other charges imposed by any Governmental Authority (including any interest, additions to tax or penalties applicable thereto). Specifically, however, if at any time any Governmental Authority, applicable law, regulation or international agreement requires Borrower to make any withholding or deduction from any such payment or other sum payable hereunder to Bank, Borrower hereby covenants and agrees that the amount due from Borrower with respect to such payment or other sum payable hereunder will be increased to the extent necessary to ensure that, after the making of such required withholding or deduction, Bank receives a net sum equal to the sum which it would have received had no withholding or deduction been required, and Borrower shall pay the full amount withheld or deducted to the relevant Governmental Authority. Borrower will, upon request, furnish Bank with proof reasonably satisfactory to Bank indicating that Borrower has made such withholding payment; provided, however, that Borrower need not make any withholding payment if the amount or validity of such withholding payment is contested in good faith by appropriate and timely proceedings and as to which payment in full is bonded or reserved against by Borrower. The agreements and obligations of Borrower contained in this Section 2.6 shall survive the termination of this Agreement.

3 CONDITIONS OF LOANS

3.1 Conditions Precedent to Initial Credit Extension. Bank's obligation to make the initial Credit Extension is subject to the condition precedent that Bank shall have received, in form and substance satisfactory to Bank, such documents, and completion of such other matters, as Bank may reasonably deem necessary or appropriate, including, without limitation:

(a) duly executed signatures to the Loan Documents;

(b) duly executed signatures to the Warrant (Term A Loan);

(c) the Operating Documents and long-form good standing certificates of Borrower and its Subsidiaries certified by the Secretary of State (or equivalent agency) of Borrower's and such Subsidiaries' jurisdiction of organization or formation and each jurisdiction in which Borrower and each Subsidiary is qualified to conduct business, each as of a date no earlier than thirty (30) days prior to the Effective Date;

(d) duly executed signatures to the completed Borrowing Resolutions for Borrower;

(e) certified copies, dated as of a recent date, of financing statement searches, as Bank may request, accompanied by written evidence (including any UCC termination statements) that the Liens indicated in any such financing statements either constitute Permitted Liens or have been or, in connection with the initial Credit Extension, will be terminated or released;

(f) the Perfection Certificate of Borrower, together with the duly executed signature thereto;

(g) a copy of Borrower's Investors' Rights Agreement and any amendments thereto;

(h) evidence satisfactory to Bank that the insurance policies required by Section 6.5 hereof are in full force and effect, together with appropriate evidence showing lender loss payable and/or additional insured clauses in favor of Bank; and

(i) payment of the fees and Bank Expenses then due as specified in Section 2.4 hereof.

3.2 Conditions Precedent to all Credit Extensions. Bank's obligations to make each Credit Extension, including the initial Credit Extension, is subject to the following conditions precedent:

(a) timely receipt of an executed Payment/Advance Form;

(b) as a condition to the funding of the Term B Loan only, Borrower shall have delivered to Bank duly executed signatures to the Warrant (Term B Loan);

(c) the representations and warranties in this Agreement shall be true, accurate, and complete in all material respects on the date of the Payment/Advance Form and on the Funding Date of each Credit Extension; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date, and no Event of Default shall have occurred and be continuing or result from the Credit Extension. Each Credit Extension is Borrower's representation and warranty on that date that the representations and warranties in this Agreement remain true, accurate, and complete in all material respects; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date; and

(d) Bank determines to its reasonable satisfaction that there has not been a Material Adverse Change.

3.3 Covenant to Deliver. Borrower agrees to deliver to Bank each item required to be delivered to Bank under this Agreement as a condition precedent to any Credit Extension. Borrower expressly agrees that a Credit Extension made prior to the receipt by Bank of any such item shall not constitute a waiver by Bank of Borrower's obligation to deliver such item, and the making of any Credit Extension in the absence of a required item shall be in Bank's sole discretion.

3.4 Procedures for Borrowing. Subject to the prior satisfaction of all other applicable conditions to the making of a Term Loan set forth in this Agreement, to obtain a Term Loan, Borrower shall notify Bank (which notice shall be irrevocable) by electronic mail by 12:00 noon Pacific time on the Funding Date of the Term Loan. Such notice shall be made by Borrower through Bank's online banking program, provided, however, if Borrower is not utilizing Bank's online banking program, then such notice shall be in a written format acceptable to Bank that is executed by an Authorized Signer. Bank shall have received satisfactory evidence that the Board has approved that such Authorized Signer may provide such notices and request Term Loan. In connection with such notification, Borrower must promptly deliver to Bank by electronic mail or through Bank's online banking program a completed Payment/Advance Form executed by an Authorized Signer together with such other reports and information, as Bank may request in its sole but reasonable discretion. Bank shall credit proceeds of any Term Loan to the Designated Deposit Account. Bank may make Term Loan under this Agreement based on instructions from an Authorized Signer or without instructions if the Term Loan are necessary to meet Obligations which have become due.

4 CREATION OF SECURITY INTEREST

4.1 Grant of Security Interest. Borrower hereby grants Bank, to secure the payment and performance in full of all of the Obligations, a continuing security interest in, and pledges to Bank, the Collateral, wherever located, whether now owned or hereafter acquired or arising, and all proceeds and products thereof.

Borrower acknowledges that it previously has entered, and/or may in the future enter, into Bank Services Agreements with Bank. Regardless of the terms of any Bank Services Agreement, Borrower agrees that any amounts Borrower owes Bank thereunder shall be deemed to be Obligations hereunder and that it is the intent of Borrower and Bank to have all such Obligations secured by the first priority perfected security interest in the Collateral granted herein (subject only to Permitted Liens that are permitted pursuant to the terms of this Agreement to have superior priority to Bank's Lien in this Agreement).

If this Agreement is terminated, Bank's Lien in the Collateral shall continue until the Obligations (other than inchoate indemnity obligations) are repaid in full in cash. Upon payment in full in cash of the Obligations (other than inchoate indemnity obligations) and at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall, at the sole cost and expense of Borrower, terminate its security interest and release its Liens in the Collateral and all rights therein shall revert to Borrower (and for the avoidance of doubt, all Borrower's obligations pursuant to Sections 6 and 7 herein shall terminate). In the event (x) all Obligations (other than inchoate indemnity obligations), except for Bank Services, are satisfied in full, and (y) this Agreement is terminated, Bank shall terminate the security interest granted herein upon Borrower providing cash collateral acceptable to Bank in its good faith business judgment for Bank Services, if any. In the event such Bank Services consist of outstanding Letters of Credit, Borrower shall provide to Bank cash collateral in an amount equal to (x) if such Letters of Credit are denominated in Dollars, then at least one hundred five percent (105.0%); and (y) if such Letters of Credit are denominated in a Foreign Currency, then at least one hundred ten percent (110.0%), of the Dollar Equivalent of the face amount of all such Letters of Credit plus all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in its good faith business judgment), to secure all of the Obligations relating to such Letters of Credit.

4.2 Priority of Security Interest. Borrower represents, warrants, and covenants that the security interest granted herein is and shall at all times continue to be a first priority perfected security interest in the Collateral (subject only to Permitted Liens that are permitted pursuant to the terms of this Agreement to have superior priority to Bank's Lien under this Agreement). If Borrower shall acquire a commercial tort claim, Borrower shall promptly notify Bank in a writing signed by Borrower of the general details thereof and grant to Bank in such writing a security interest therein and in the proceeds thereof, all upon the terms of this Agreement, with such writing to be in form and substance reasonably satisfactory to Bank.

4.3 Authorization to File Financing Statements. Borrower hereby authorizes Bank to file financing statements, without notice to Borrower, with all appropriate jurisdictions to perfect or protect Bank's interest or rights hereunder, including a notice that any disposition of the Collateral, by either Borrower or any other Person, shall be deemed to violate the rights of Bank under the Code.

5 REPRESENTATIONS AND WARRANTIES

Borrower represents and warrants as follows:

5.1 Due Organization, Authorization; Power and Authority. Borrower is duly existing and in good standing as a Registered Organization in its jurisdiction of formation and is qualified and licensed to do business and is in good standing in any jurisdiction in which the conduct of its business or its ownership of property requires that it be qualified except where the failure to do so could not reasonably be expected to have a material adverse effect on Borrower's business. In connection with this Agreement, Borrower has delivered to Bank a completed certificate signed by Borrower, entitled "Perfection Certificate". Borrower represents and warrants to Bank that (a) Borrower's exact legal name is that indicated on the Perfection Certificate and on the signature page hereof; (b) Borrower is an organization of the type and is organized in the jurisdiction set forth in the Perfection Certificate; (c) the Perfection Certificate accurately sets forth Borrower's organizational identification number or accurately states that Borrower has none; (d) the Perfection Certificate accurately sets forth Borrower's place of business, or, if more than one, its chief executive office as well as Borrower's mailing address (if different than its chief executive office); (e) Borrower (and each of its predecessors) has not, in the past five (5) years, changed its jurisdiction of formation, organizational structure or type, or any organizational number assigned by its jurisdiction; and (f) all other information set forth on the Perfection Certificate pertaining to Borrower and each of its Subsidiaries is accurate and complete in all material respects (it being understood and agreed that Borrower may from time to time update certain information in the Perfection Certificate after the Effective Date to the extent permitted by one or more specific provisions in this

Agreement). If Borrower is not now a Registered Organization but later becomes one, Borrower shall promptly notify Bank of such occurrence and provide Bank with Borrower's organizational identification number.

The execution, delivery and performance by Borrower of the Loan Documents to which it is a party have been duly authorized, and do not (i) conflict with any of Borrower's organizational documents, (ii) contravene, conflict with, constitute a default under or violate any material Requirement of Law, (iii) contravene, conflict with or violate any applicable order, writ, judgment, injunction, decree, determination or award of any Governmental Authority by which Borrower or any of its Subsidiaries or any of their property or assets may be bound or affected, (iv) require any action by, filing, registration, or qualification with, or Governmental Approval from, any Governmental Authority (except such Governmental Approvals which have already been obtained and are in full force and effect) or (v) conflict with, contravene, constitute a default or breach under, or result in or permit the termination or acceleration of, any material agreement by which Borrower is bound. Borrower is not in default under any agreement to which it is a party or by which it is bound in which the default could reasonably be expected to have a material adverse effect on Borrower's business.

5.2 Collateral. Borrower has good title to, rights in, and the power to transfer each item of the Collateral upon which it purports to grant a Lien hereunder, free and clear of any and all Liens except Permitted Liens. Borrower has no Collateral Accounts at or with any bank or financial institution other than Bank or Bank's Affiliates except for the Collateral Accounts described in the Perfection Certificate delivered to Bank in connection herewith and which Borrower has taken such actions as are necessary to give Bank a perfected security interest therein, pursuant to the terms of Section 6.6(c). The Accounts are bona fide, existing obligations of the Account Debtors.

The Collateral is not in the possession of any third party bailee (such as a warehouse) except as otherwise provided in the Perfection Certificate. None of the components of the Collateral shall be maintained at locations other than as provided in the Perfection Certificate or as permitted pursuant to Section 7.2.

Borrower is the sole owner of the Intellectual Property which it owns or purports to own except for (a) non-exclusive licenses granted to its customers in the ordinary course of business, (b) over-the-counter software that is commercially available to the public, and (c) material Intellectual Property licensed to Borrower and noted on the Perfection Certificate. Each Patent which it owns or purports to own and which is material to Borrower's business is valid and enforceable, and no part of the Intellectual Property which Borrower owns or purports to own and which is material to Borrower's business has been judged by a court or tribunal of competent jurisdiction to be invalid or unenforceable, in whole or in part, except for non-final, ordinary course office actions related to any United States or foreign Intellectual Property registration efforts. To the best of Borrower's knowledge, no claim has been made in writing that any part of the Intellectual Property violates the rights of any third party except to the extent such claim would not reasonably be expected to have a material adverse effect on Borrower's business.

Except as noted on the Perfection Certificate, Borrower is not a party to, nor is it bound by, any Restricted License.

5.3 Litigation. Except as set forth on the Perfection Certificate (if any), there are no actions or proceedings pending or, to the knowledge of any Responsible Officer, threatened in writing by or against Borrower or any of its Subsidiaries involving more than, individually or in the aggregate, Two Hundred Thousand Dollars ($200,000).

5.4 Financial Statements; Financial Condition. All consolidated financial statements for Borrower and any of its Subsidiaries delivered to Bank by submission to the Financial Statement Repository or otherwise submitted to Bank fairly present in all material respects Borrower's consolidated financial condition and Borrower's consolidated results of operations for the period then ended. There has not been any material deterioration in Borrower's consolidated financial condition since the date of the most recent financial statements submitted to the Financial Statement Repository or otherwise submitted to Bank.

5.5 Solvency. The fair salable value of Borrower's consolidated assets (including goodwill minus disposition costs) exceeds the fair value of Borrower's liabilities; Borrower is not left with unreasonably small capital after the transactions in this Agreement; and Borrower is able to pay its debts (including trade debts) as they mature.

5.6 Regulatory Compliance. Borrower is not an "investment company" or a company "controlled" by an "investment company" under the Investment Company Act of 1940, as amended. Borrower is not engaged as one of its important activities in extending credit for margin stock (under Regulations X, T and U of the Federal Reserve Board of Governors). Borrower (a) has complied in all material respects with all Requirements of Law, and (b) has not violated any Requirements of Law the violation of which could reasonably be expected to have a material adverse effect on its business. None of Borrower's or any of its Subsidiaries' properties or assets has been used by Borrower or any Subsidiary or, to the best of Borrower's knowledge, by previous Persons, in disposing, producing, storing, treating, or transporting any hazardous substance other than legally. Borrower and each of its Subsidiaries have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all Government Authorities that are necessary to continue their respective businesses as currently conducted, except where failure to do so could not reasonably be expected to cause a Material Adverse Change.

5.7 Subsidiaries; Investments. Borrower does not own any stock, partnership, or other ownership interest or other equity securities except for Permitted Investments.

5.8 Tax Returns and Payments; Pension Contributions. Borrower has timely filed (taking into account any extensions) all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except (a) to the extent such taxes are being contested in good faith by appropriate proceedings promptly instituted and diligently conducted, so long as such reserve or other appropriate provision, if any, as shall be required in conformity with GAAP shall have been made therefor, or (b) if such taxes, assessments, deposits and contributions do not, individually or in the aggregate, exceed Twenty-Five Thousand Dollars ($25,000).

To the extent Borrower defers payment of any contested taxes, Borrower shall (i) notify Bank in writing of the commencement of, and any material development in, the proceedings, and (ii) post bonds or take any other steps required to prevent the governmental authority levying such contested taxes from obtaining a Lien upon any of the Collateral that is other than a "Permitted Lien." Borrower is unaware of any claims or adjustments proposed for any of Borrower's prior tax years which could reasonably be expected to result in additional taxes becoming due and payable by Borrower in excess of Twenty-Five Thousand Dollars ($25,000). Borrower has paid all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms, and Borrower has not withdrawn from participation in, and has not permitted partial or complete termination of, or permitted the occurrence of any other event with respect to, any such plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other Governmental Authority.

5.9 Use of Proceeds. Borrower shall use the proceeds of the Credit Extensions solely as working capital, and to fund its general business requirements and not for personal, family, household or agricultural purposes.

5.10 Full Disclosure. No written representation, warranty or other statement of Borrower in any certificate or written statement submitted to the Financial Statement Repository or otherwise submitted to Bank, as of the date such representation, warranty, or other statement was made, taken together with all such written certificates and written statements submitted to the Financial Statement Repository or otherwise submitted to Bank, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements contained in the certificates or written statements, in light of the circumstances in which they were made, not misleading (it being recognized by Bank that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results).

5.11 Definition of "Knowledge." For purposes of the Loan Documents, whenever a representation or warranty is made to Borrower's knowledge or awareness, to the "best of" Borrower's knowledge, or with a similar qualification, knowledge or awareness means the actual knowledge, after reasonable investigation, of any Responsible Officer.

6 AFFIRMATIVE COVENANTS

Borrower shall do all of the following:

6.1 Government Compliance.

(a) Maintain its and all its Subsidiaries' legal existence and good standing in their respective jurisdictions of formation and maintain qualification in each jurisdiction in which the failure to so qualify would reasonably be expected to have a material adverse effect on Borrower's business or operations. Borrower shall comply, and have each Subsidiary comply, in all material respects, with all laws, ordinances and regulations to which it is subject.

(b) Obtain all of the Governmental Approvals necessary for the performance by Borrower of its obligations under the Loan Documents to which it is a party and the grant of a security interest to Bank in the Collateral. Borrower shall promptly provide copies of any such obtained Governmental Approvals to Bank.

6.2 Financial Statements, Reports, Certificates. Provide Bank with the following by submitting to the Financial Statement Repository or otherwise submitting to Bank:

(a) At all times prior to Borrower's completion of an IPO.

(i) Monthly Financial Statements. As soon as available, but no later than thirty (30) days after the last day of each month, a company prepared consolidated and consolidating balance sheet and income statement covering Borrower's and each of its Subsidiary's operations for such month in a form acceptable to Bank (the "**Monthly Financial Statements**");

(ii) Monthly Compliance Statement. Within thirty (30) days after the last day of each month and together with the Monthly Financial Statements, a duly completed Compliance Statement, confirming that, as of the end of such month, Borrower was in full compliance with all of the terms and conditions of this Agreement, and such other information as Bank may reasonably request;

(iii) Annual Audited Financial Statements. As soon as available, but no later than one hundred eighty (180) days after the last day of Borrower's fiscal year, audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion on the financial statements from an independent certified public accounting firm reasonably acceptable to Bank (except the opinion may contain a qualification as to going concern relating solely to sufficient liquidity that is typical for venture backed companies);

(b) At all times after Borrower's completion of an IPO.

(i) Quarterly Financial Statements. As soon as available, but no later than the earlier of (i) forty-five (45) days after the last day of each quarter, or (ii) within five (5) days of filing with the SEC, a company prepared consolidated and consolidating balance sheet and income statement covering Borrower's and each of its Subsidiary's operations for such quarter in a form acceptable to Bank (the "**Quarterly Financial Statements**");

(ii) Quarterly Compliance Statement. As soon as available, but no later than the earlier of (i) forty-five (45) days after the last day of each quarter, or (ii) within five (5) days of filing with the SEC, and together with the Quarterly Financial Statements, a duly completed Compliance Statement, confirming that, as of the end of such month, Borrower was in full compliance with all of the terms and conditions of this Agreement, and such other information as Bank may reasonably request;

(iii) Annual Audited Financial Statements. As soon as available, but no later than the earlier of (i) ninety-five (95) days after the last day of Borrower's fiscal year, or (ii) within five (5) days of filing with the SEC, Borrower's audited consolidated financial statements prepared under GAAP, consistently applied, together with an unqualified opinion on the financial statements from an independent certified public accounting firm reasonably acceptable to Bank;

(c) Annual Operating Budget and Financial Projections. Within thirty (30) days after the last day of Borrower's fiscal year, and within ten (10) days of any updates or amendments thereto, (i) annual operating budgets (including income statements, balance sheets and cash flow statements, by month) for the upcoming fiscal year of Borrower, and (ii) annual financial projections for the following fiscal year (on a quarterly basis) as approved by Borrower's board of directors, together with any related business forecasts used in the preparation of such annual financial projections;

(d) Other Statements. Within ten (10) days of delivery, copies of all statements, reports and notices made available to Borrower's security holders or to any holders of Subordinated Debt;

(e) SEC Filings. In the event that Borrower becomes subject to the reporting requirements under the Exchange Act within five (5) days of filing, copies of all periodic and other reports, proxy statements and other materials filed by Borrower with the SEC, any Governmental Authority succeeding to any or all of the functions of the SEC or with any national securities exchange, or distributed to its shareholders, as the case may be. Documents required to be delivered pursuant to the terms hereof (to the extent any such documents are included in materials otherwise filed with the SEC) may be delivered electronically and if so delivered, shall be deemed to have been delivered on the date on which Borrower posts such documents, or provides a link thereto, on Borrower's website on the Internet at Borrower's website address; provided, however, Borrower shall promptly notify Bank in writing (which may be by electronic mail) of the posting of any such documents;

(f) Legal Action Notice. A prompt report of any legal actions pending or threatened in writing against Borrower or any of its Subsidiaries that could reasonably be expected to result in damages or costs to Borrower or any of its Subsidiaries of, individually or in the aggregate, Two Hundred Thousand Dollars ($200,000) or more;

(g) Beneficial Ownership. Prompt written notice of any changes to the beneficial ownership information set out in Section 13 to the Perfection Certificate. Borrower understands and acknowledges that Bank relies on such true, accurate and up-to-date beneficial ownership information to meet Bank's regulatory obligations to obtain, verify and record information about the beneficial owners of its legal entity customers; and

(h) Other Financial Information. Other financial information reasonably requested by Bank.

Any submission by Borrower of a Compliance Statement, or any other financial statement submitted to the Financial Statement Repository pursuant to this Section 6.2 or otherwise submitted to Bank shall be deemed to be a representation by Borrower that (a) as of the date of such Compliance Statement, or other financial statement, the information and calculations set forth therein are true, accurate and correct, (b) as of the end of the compliance period set forth in such submission, Borrower is in complete compliance with all required covenants except as noted in such Compliance Statement, or other financial statement, as applicable; (c) as of the date of such submission, no Events of Default have occurred or are continuing; (d) all representations and warranties other than any representations or warranties that are made as of a specific date in Article 5 remain true and correct in all material respects as of the date of such submission except as noted in such Compliance Statement, or other financial statement, as applicable; (e) as of the date of such submission, Borrower and each of its Subsidiaries have timely filed all required tax returns and reports, and Borrower has timely paid all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower except as otherwise permitted pursuant to the terms of Section 5.9; and (f) as of the date of such submission, no Liens have been levied or claims made against Borrower or any of its Subsidiaries relating to unpaid employee payroll or benefits of which Borrower has not previously provided written notification to Bank.

6.3 Inventory; Returns. Keep all Inventory in good and marketable condition, free from material defects. Returns and allowances between Borrower and its Account Debtors shall follow Borrower's customary practices as they exist at the Effective Date. Borrower must promptly notify Bank of all returns, recoveries, disputes and claims that involve more than One Hundred Thousand Dollars ($100,000).

6.4 Taxes; Pensions. Timely file, and require each of its Subsidiaries to timely file, all required tax returns and reports (or file valid extensions thereof) and timely pay, and require each of its Subsidiaries to timely pay, all foreign, federal, state and local taxes, assessments, deposits and contributions owed by Borrower and each of its Subsidiaries, except for deferred payment of any taxes contested pursuant to the terms of Section 5.9 hereof, and shall

deliver to Bank, on demand, appropriate certificates attesting to such payments, and pay all amounts necessary to fund all present pension, profit sharing and deferred compensation plans in accordance with their terms.

6.5 Insurance.

(a) Keep its business and the Collateral insured for risks and in amounts standard for companies in Borrower's industry, size and location and as Bank may reasonably request. Insurance policies shall be in a form, with financially sound and reputable insurance companies that are not Affiliates of Borrower, and in amounts that are resaonably satisfactory to Bank. All property policies shall have a lender's loss payable endorsement showing Bank as lender loss payee. All liability policies shall show, or have endorsements showing, Bank as an additional insured. Bank shall be named as lender loss payee and/or additional insured with respect to any such insurance providing coverage in respect of any Collateral.

(b) Ensure that proceeds payable under any property policy are, at Bank's option, payable to Bank on account of the Obligations. Notwithstanding the foregoing, (a) so long as no Event of Default has occurred and is continuing, Borrower shall have the option of applying the proceeds of any casualty policy up to Fifty Thousand Dollars ($50,000) with respect to any loss, but not exceeding One Hundred Thousand Dollars ($100,000) in the aggregate for all losses under all casualty policies in any one year, toward the replacement or repair of destroyed or damaged property; provided that any such replaced or repaired property (i) shall be of equal or like value as the replaced or repaired Collateral and (ii) shall be deemed Collateral in which Bank has been granted a first priority security interest, and (b) after the occurrence and during the continuance of an Event of Default, all proceeds payable under such casualty policy shall, at the option of Bank, be payable to Bank on account of the Obligations.

(c) At Bank's request, Borrower shall deliver certified copies of insurance policies and evidence of all premium payments. Each provider of any such insurance required under this Section 6.5 shall agree, by endorsement upon the policy or policies issued by it or by independent instruments furnished to Bank, that it will give Bank thirty (30) days prior written notice before any such policy or policies shall be materially altered or canceled. If Borrower fails to obtain insurance as required under this Section 6.5 or to pay any amount or furnish any required proof of payment to third persons and Bank, Bank may make all or part of such payment or obtain such insurance policies required in this Section 6.5, and take any action under the policies Bank deems prudent.

6.6 Operating Accounts.

(a) Maintain its and all of its Subsidiaries' operating accounts and excess cash with Bank and Bank's Affiliates.

(b) In addition, Borrower shall obtain any business credit cards, letters of credit and cash management services exclusively from Bank.

(c) Provide Bank five (5) days prior written notice before establishing any Collateral Account at or with any bank or financial institution other than Bank or Bank's Affiliates. For each Collateral Account that Borrower at any time maintains, Borrower shall cause the applicable bank or financial institution (other than Bank) at or with which any Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Bank's Lien in such Collateral Account in accordance with the terms hereunder which Control Agreement may not be terminated without the prior written consent of Bank. The provisions of the previous sentence shall not apply to deposit accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Bank by Borrower as such.

6.7 Intentionally Omitted.

6.8 Protection of Intellectual Property Rights.

(a) (i) Use commercially reasonable efforts to protect, defend and maintain the validity and enforceability of its Intellectual Property having any material value; (ii) promptly advise Bank in writing of material

infringements or any other event that could reasonably be expected to materially and adversely affect the value of its Intellectual Property; and (iii) not allow any Intellectual Property owned by Borrower and material to Borrower's business to be abandoned, forfeited or dedicated to the public without Bank's written consent.

(b) Provide written notice to Bank within thirty (30) days of entering or becoming bound by any Restricted License (other than over-the-counter software that is commercially available to the public). Borrower shall take such steps as Bank requests in its reasonable discretion to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for (i) any Restricted License to be deemed "Collateral" and for Bank to have a security interest in it that might otherwise be restricted or prohibited by law or by the terms of any such Restricted License, whether now existing or entered into in the future, and (ii) Bank to have the ability in the event of a liquidation of any Collateral to dispose of such Collateral in accordance with Bank's rights and remedies under this Agreement and the other Loan Documents.

6.9 Litigation Cooperation. From the date hereof and continuing through the termination of this Agreement, make available to Bank, without expense to Bank, Borrower and its officers, employees and agents and Borrower's books and records, to the extent that Bank may deem them reasonably necessary to prosecute or defend any third-party suit or proceeding instituted by or against Bank with respect to any Collateral or relating to Borrower.

6.10 Access to Collateral; Books and Records. Allow Bank, or its agents, at reasonable times, on three (3) Business Days' notice (provided no notice is required if an Event of Default has occurred and is continuing), to inspect the Collateral and audit and copy Borrower's Books. Such inspections or audits shall be conducted no more often than once every twelve (12) months unless an Event of Default has occurred and is continuing in which case such inspections and audits shall occur as often as Bank shall determine is necessary. The foregoing inspections and audits shall be at Borrower's expense, and the charge therefor shall be One Thousand Dollars ($1,000) per person per day (or such higher amount as shall represent Bank's then-current standard charge for the same), plus reasonable out-of-pocket expenses. In the event Borrower and Bank schedule an audit more than ten (10) days in advance, and Borrower cancels or seeks to reschedule the audit with less than ten (10) days written notice to Bank, then (without limiting any of Bank's rights or remedies), Borrower shall pay Bank a fee of Two Thousand Dollars ($2,000) plus any out-of-pocket expenses incurred by Bank to compensate Bank for the anticipated costs and expenses of the cancellation or rescheduling.

6.11 Formation or Acquisition of Subsidiaries. Notwithstanding and without limiting the negative covenants contained in Sections 7.3 and 7.7 hereof, at the time that Borrower forms any direct or indirect Subsidiary or acquires any direct or indirect Subsidiary after the Effective Date (including, without limitation, pursuant to a Division), Borrower shall (a) cause such new Subsidiary to provide to Bank a joinder to the Loan Agreement to cause such Subsidiary to become a co-borrower (as determined by Bank in its sole but reasonable discretion) hereunder, together with such appropriate financing statements and/or Control Agreements, all in form and substance satisfactory to Bank (including being sufficient to grant Bank a first priority Lien (subject to Permitted Liens) in and to the assets of such newly formed or acquired Subsidiary), (b) provide to Bank appropriate certificates and powers and financing statements, pledging all of the direct or beneficial ownership interest in such new Subsidiary, in form and substance satisfactory to Bank and (c) provide to Bank all other documentation in form and substance satisfactory to Bank, including one or more opinions of counsel reasonably satisfactory to Bank, which in its opinion is appropriate with respect to the execution and delivery of the applicable documentation referred to above. Any document, agreement, or instrument executed or issued pursuant to this Section 6.11 shall be a Loan Document.

6.12 Further Assurances. Execute any further instruments and take further action as Bank reasonably requests to perfect or continue Bank's Lien in the Collateral or to effect the purposes of this Agreement. Deliver to Bank, within five (5) days after the same are sent or received, copies of all correspondence, reports, documents and other filings with any Governmental Authority regarding compliance with or maintenance of Governmental Approvals or Requirements of Law or that could reasonably be expected to have a material effect on any of the Governmental Approvals or otherwise on the operations of Borrower or any of its Subsidiaries.

6.13 Post-Closing Condition. As soon as possible, but in any event no later than thirty (30) days after the Effective Date, Borrower shall deliver (i) a landlord's consent in favor of Bank for Borrower's leased location at 10578 Science Center Drive, Suite 200, San Diego, CA 92121, duly executed by the respective landlord thereof, and (ii) evidence satisfactory to Bank that the insurance endorsements required by Section 6.5 hereof are in full force and

effect, together with appropriate evidence showing lender loss payable and/or additional insured endorsements in favor of Bank.

7 NEGATIVE COVENANTS

Borrower shall not do any of the following without Bank's prior written consent:

7.1 Dispositions. Convey, sell, lease, transfer, assign, or otherwise dispose of (including, without limitation, pursuant to a Division) (collectively, "**Transfer**"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, except for Transfers (a) of Inventory in the ordinary course of business; (b) of worn-out, obsolete or other unneeded Equipment that is, in the reasonable judgment of Borrower, no longer economically practicable to maintain or useful in the ordinary course of business of Borrower; (c) consisting of Permitted Liens and Permitted Investments; (d) consisting of the sale or issuance of any stock of Borrower permitted under Section 7.2 of this Agreement; (e) consisting of Borrower's use or transfer of money or Cash Equivalents in a manner that is not prohibited by the terms of this Agreement or the other Loan Documents; (f) of non-exclusive licenses for the use of the property of Borrower or its Subsidiaries in the ordinary course of business and licenses that could not result in a legal transfer of title of the licensed property but that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States.

7.2 Changes in Business, Management, Control, or Business Locations. (a) Engage in or permit any of its Subsidiaries to engage in any business other than the businesses currently engaged in by Borrower and such Subsidiary, as applicable, or reasonably related thereto; (b) liquidate or dissolve; (c) fail to provide notice to Bank of any Key Person departing from or ceasing to be employed by the Borrower within five (5) days after his or her departure from Borrower; or (d) permit or suffer any Change in Control.

Borrower shall not, without at least thirty (30) days prior written notice to Bank: (1) add any new offices or business locations, including warehouses (unless such new offices or business locations contain less than One Hundred Thousand Dollars ($100,000) in Borrower's assets or property) or deliver any portion of the Collateral valued, individually or in the aggregate, in excess of Fifty Thousand Dollars ($50,000) to a bailee at a location other than to a bailee and at a location already disclosed in the Perfection Certificate, (2) change its jurisdiction of organization, (3) change its organizational structure or type, (4) change its legal name, or (5) change any organizational number (if any) assigned by its jurisdiction of organization. If Borrower intends to deliver any portion of the Collateral valued, individually or in the aggregate, in excess of Fifty Thousand Dollars ($50,000) to a bailee, and Bank and such bailee are not already parties to a bailee agreement governing both the Collateral and the location to which Borrower intends to deliver the Collateral, then Borrower will first receive the written consent of Bank, and such bailee shall execute and deliver a bailee agreement in form and substance satisfactory to Bank.

7.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with any other Person, or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person (including, without limitation, by the formation of any Subsidiary or pursuant to a Division). A Subsidiary may merge or consolidate into another Subsidiary or into Borrower.

7.4 Indebtedness. Create, incur, assume, or be liable for any Indebtedness, or permit any Subsidiary to do so, other than Permitted Indebtedness.

7.5 Encumbrance. Create, incur, allow, or suffer any Lien on any of its property, or assign or convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries to do so, except for Permitted Liens, permit any Collateral not to be subject to the first priority security interest granted herein, or enter into any agreement, document, instrument or other arrangement (except with or in favor of Bank) with any Person which directly or indirectly prohibits or has the effect of prohibiting Borrower or any Subsidiary from assigning, mortgaging, pledging, granting a security interest in or upon, or encumbering any of Borrower's or any Subsidiary's Intellectual Property, except as is otherwise permitted in Section 7.1 hereof and the definition of "Permitted Liens" herein.

7.6 Maintenance of Collateral Accounts. Maintain any Collateral Account except pursuant to the terms of Section 6.6(c) hereof.

7.7 Distributions; Investments. (a) Pay any dividends or make any distribution or payment or redeem, retire or purchase any capital stock provided that (i) Borrower may convert any of its convertible securities into other securities pursuant to the terms of such convertible securities or otherwise in exchange thereof, (ii) Borrower may pay dividends solely in common stock; (iii) Borrower may repurchase the stock of former employees or consultants pursuant to stock repurchase agreements so long as an Event of Default does not exist at the time of such repurchase and would not exist after giving effect to such repurchase, provided that the aggregate amount of all such repurchases does not exceed One Hundred Thousand Dollars ($100,000) per fiscal year and (iv) pay reasonable and customary travel and business expense reimbursements or similar payments to its directors in the ordinary course of business; or (b) directly or indirectly make any Investment (including, without limitation, by the formation of any Subsidiary) other than Permitted Investments, or permit any of its Subsidiaries to do so.

7.8 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower, except for (a) transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person and (b) transactions constituting bona fide financing rounds for capital raising purposes, provided such financing transactions are approved by the Board of Directors and are not otherwise prohibited by this Agreement and (c) transactions of the type permitted pursuant to the terms of Section 7.7 and 7.9 hereof.

7.9 Subordinated Debt. (a) Make or permit any payment on any Subordinated Debt, except under the terms of the subordination, intercreditor, or other similar agreement to which such Subordinated Debt is subject, provided that the conversion of any Subordinated Debt into equity securities of Borrower shall be permitted or (b) amend any provision in any document relating to the Subordinated Debt which would increase the amount thereof, provide for earlier or greater principal, interest, or other payments thereon, or adversely affect the subordination thereof to Obligations owed to Bank.

7.10 Compliance. Become an "investment company" or a company controlled by an "investment company", under the Investment Company Act of 1940, as amended, or undertake as one of its important activities extending credit to purchase or carry margin stock (as defined in Regulation U of the Board of Governors of the Federal Reserve System), or use the proceeds of any Credit Extension for that purpose; fail to (a) meet the minimum funding requirements of ERISA, (b) prevent a Reportable Event or Prohibited Transaction as defined in ERISA, or (c) comply with the Federal Labor Standards Act, the failure of any of the conditions in clauses (a) through (c) which could reasonably be expected to have a material adverse effect on Borrower's business, or violate any other law or regulation, if the violation could reasonably be expected to have a material adverse effect on Borrower's business or permit any Subsidiaries to do so; withdraw or permit any Subsidiary to withdraw from participation in, permit partial or complete termination of, or permit the occurrence of any other event with respect to, any present pension, profit sharing and deferred compensation plan which could reasonably be expected to result in any liability of Borrower, including any liability to the Pension Benefit Guaranty Corporation or its successors or any other governmental agency.

8 EVENTS OF DEFAULT

Any one of the following shall constitute an event of default (an "**Event of Default**") under this Agreement:

8.1 Payment Default. Borrower fails to (a) make any payment of principal or interest on any Credit Extension when due, or (b) pay any other Obligations within three (3) Business Days after such Obligations are due and payable (which three (3) Business Day cure period shall not apply to payments due on the Term Loan Maturity Date). During the cure period, the failure to make or pay any payment specified under clause (b) hereunder is not an Event of Default (but no Credit Extension will be made during the cure period);

8.2 Covenant Default.

(a) Borrower fails or neglects to perform any obligation in Sections 6.2, 6.4, 6.5, 6.6, 6.8, 6.10, 6.11 or violates any covenant in Section 7; or

(b) Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant or agreement contained in this Agreement or any Loan Documents, and as to any default (other than those specified in this Section 8) under such other term, provision, condition, covenant or agreement that can be cured, has failed to cure the default within ten (10) days after the occurrence thereof; provided, however, that if the default cannot by its nature be cured within the ten (10) day period or cannot after diligent attempts by Borrower be cured within such ten (10) day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional period (which shall not in any case exceed thirty (30) days) to attempt to cure such default, and within such reasonable time period the failure to cure the default shall not be deemed an Event of Default (but no Credit Extensions shall be made during such cure period). Cure periods provided under this section shall not apply, among other things, to financial covenants or any other covenants set forth in clause (a) above;

8.3 Material Adverse Change. A Material Adverse Change occurs in the reasonable determination of the Bank;

8.4 Attachment; Levy; Restraint on Business.

(a) (i) The service of process seeking to attach, by trustee or similar process, any funds of Borrower or of any entity under the control of Borrower (including a Subsidiary) in excess of Fifty Thousand Dollars ($50,000), or (ii) a notice of lien or levy is filed against any of Borrower's assets by any Governmental Authority, and the same under subclauses (i) and (ii) hereof are not, within ten (10) days after the occurrence thereof, discharged or stayed (whether through the posting of a bond or otherwise); provided, however, no Credit Extensions shall be made during any ten (10) day cure period; or

(b) (i) any material portion of Borrower's assets is attached, seized, levied on, or comes into possession of a trustee or receiver, or (ii) any court order enjoins, restrains, or prevents Borrower from conducting all or any material part of its business;

8.5 Insolvency. (a) Borrower or any of its Subsidiaries is unable to pay its debts (including trade debts) as they become due or otherwise becomes insolvent; (b) Borrower or any of its Subsidiaries begins an Insolvency Proceeding; or (c) an Insolvency Proceeding is begun against Borrower or any of its Subsidiaries and is not dismissed or stayed within thirty (30) days (but no Credit Extensions shall be made while any of the conditions described in clause (a) exist and/or until any Insolvency Proceeding is dismissed);

8.6 Other Agreements. There is, under any agreement to which Borrower is a party with a third party or parties, (a) any default resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount individually or in the aggregate in excess of One Hundred Fifty Thousand Dollars ($150,000) or that could reasonably be expected to have a material adverse effect on Borrower's business; provided, however, that the Event of Default under this Section 8.6 caused by the occurrence of a breach or default under such other agreement shall be cured or waived for purposes of this Agreement upon Bank receiving written notice from the party asserting such breach or default of such cure or waiver of the breach or default under such other agreement, if at the time of such cure or waiver under such other agreement (x) Bank has not declared an Event of Default under this Agreement and/or exercised any rights with respect thereto; (y) any such cure or waiver does not result in an Event of Default under any other provision of this Agreement or any Loan Document; and (z) in connection with any such cure or waiver under such other agreement, the terms of any agreement with such third party are not modified or amended in any manner which could in the good faith business judgment of Bank be materially less advantageous to Borrower;

8.7 Judgments; Penalties. One or more fines, penalties or final judgments, orders or decrees for the payment of money in an amount, individually or in the aggregate, of at least One Hundred Thousand Dollars ($100,000) (not covered by independent third-party insurance as to which liability has been accepted by such insurance

carrier) shall be rendered against Borrower by any Governmental Authority, and the same are not, within ten (10) days after the entry, assessment or issuance thereof, discharged, satisfied, or paid, or after execution thereof, stayed or bonded pending appeal, or such judgments are not discharged prior to the expiration of any such stay (provided that no Credit Extensions will be made prior to the satisfaction, payment, discharge, stay, or bonding of such fine, penalty, judgment, order or decree);

8.8 Misrepresentations. Borrower or any Person acting for Borrower makes any representation, warranty, or other statement now or later in this Agreement, any Loan Document or in any writing delivered to Bank or to induce Bank to enter this Agreement or any Loan Document, and such representation, warranty, or other statement is incorrect in any material respect when made (it being agreed and acknowledged by Bank that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not viewed as facts and that actual results during the period or periods covered by such projections and forecasts may differ from the projected or forecasted results);

8.9 Subordinated Debt. Any document, instrument, or agreement evidencing any Subordinated Debt shall for any reason be revoked or invalidated or otherwise cease to be in full force and effect, any Person shall be in breach thereof or contest in any manner the validity or enforceability thereof or deny that it has any further liability or obligation thereunder, or the Obligations shall for any reason be subordinated or shall not have the priority contemplated by this Agreement;

8.10 Governmental Approvals. Any Governmental Approval shall have been (a) revoked, rescinded, suspended, modified in an adverse manner or not renewed in the ordinary course for a full term or (b) subject to any decision by a Governmental Authority that designates a hearing with respect to any applications for renewal of any of such Governmental Approval or that could result in the Governmental Authority taking any of the actions described in clause (a) above, and such decision or such revocation, rescission, suspension, modification or non-renewal (i) cause, or could reasonably be expected to cause, a Material Adverse Change, or (ii) adversely affects the legal qualifications of Borrower or any of its Subsidiaries to hold such Governmental Approval in any applicable jurisdiction and such revocation, rescission, suspension, modification or non-renewal could reasonably be expected to affect the status of or legal qualifications of Borrower or any of its Subsidiaries to hold any Governmental Approval in any other jurisdiction.

9 BANK'S RIGHTS AND REMEDIES

9.1 Rights and Remedies. Upon the occurrence and during the continuance of an Event of Default, Bank may, without notice or demand, do any or all of the following:

(a) declare all Obligations immediately due and payable (but if an Event of Default described in Section 8.5 occurs all Obligations are immediately due and payable without any action by Bank);

(b) stop advancing money or extending credit for Borrower's benefit under this Agreement or under any other agreement between Borrower and Bank;

(c) for any Letters of Credit, demand that Borrower (i) deposit cash with Bank in an amount equal to (x) if such Letters of Credit are denominated in Dollars, then at least one hundred five percent (105.0%); and (y) if such Letters of Credit are denominated in a Foreign Currency, then at least one hundred ten percent (110.0%), of the Dollar Equivalent of the aggregate face amount of all Letters of Credit remaining undrawn (plus all interest, fees, and costs due or to become due in connection therewith (as estimated by Bank in its good faith business judgment)), to secure all of the Obligations relating to such Letters of Credit, as collateral security for the repayment of any future drawings under such Letters of Credit, and Borrower shall forthwith deposit and pay such amounts, and (ii) pay in advance all letter of credit fees scheduled to be paid or payable over the remaining term of any Letters of Credit;

(d) terminate any FX Contracts;

(e) verify the amount of, demand payment of and performance under, and collect any Accounts and General Intangibles, settle or adjust disputes and claims directly with Account Debtors for amounts on terms and in any order that Bank considers advisable, and notify any Person owing Borrower money of Bank's security interest in such funds;

(f) make any payments and do any acts it considers necessary or reasonable to protect the Collateral and/or its security interest in the Collateral. Borrower shall assemble the Collateral if Bank requests and make it available as Bank designates. Bank may enter premises where the Collateral is located, take and maintain possession of any part of the Collateral, and pay, purchase, contest, or compromise any Lien which appears to be prior or superior to its security interest and pay all expenses incurred. Borrower grants Bank a license to enter and occupy any of its premises, without charge, to exercise any of Bank's rights or remedies;

(g) apply to the Obligations any (i) balances and deposits of Borrower it holds, or (ii) any amount held by Bank owing to or for the credit or the account of Borrower;

(h) ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral. For use solely while an Event of Default exists and solely to the extent necessary to exercise its rights with respect to the Collateral, Bank is hereby granted a non-exclusive, royalty-free license or other right to use, without charge, Borrower's labels, Patents, Copyrights, mask works, rights of use of any name, trade secrets, trade names, Trademarks, and advertising matter, or any similar property solely as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section, Borrower's rights under all licenses and all franchise agreements inure to Bank's benefit;

(i) place a "hold" on any account maintained with Bank and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any Control Agreement or similar agreements providing control of any Collateral;

(j) demand and receive possession of Borrower's Books; and

(k) exercise all rights and remedies available to Bank under the Loan Documents or at law or equity, including all remedies provided under the Code (including disposal of the Collateral pursuant to the terms thereof).

9.2 Power of Attorney. Borrower hereby irrevocably appoints Bank as its lawful attorney-in-fact, exercisable upon the occurrence and during the continuance of an Event of Default, to: (a) endorse Borrower's name on any checks or other forms of payment or security; (b) sign Borrower's name on any invoice or bill of lading for any Account or drafts against Account Debtors; (c) settle and adjust disputes and claims about the Accounts directly with Account Debtors, for amounts and on terms Bank determines reasonable; (d) make, settle, and adjust all claims under Borrower's insurance policies; (e) pay, contest or settle any Lien, charge, encumbrance, security interest, and adverse claim in or to the Collateral, or any judgment based thereon, or otherwise take any action to terminate or discharge the same; and (f) transfer the Collateral into the name of Bank or a third party as the Code permits. Borrower hereby appoints Bank as its lawful attorney-in-fact to sign Borrower's name on any documents necessary to perfect or continue the perfection of Bank's security interest in the Collateral regardless of whether an Event of Default has occurred until all Obligations have been satisfied in full and Bank is under no further obligation to make Credit Extensions hereunder. Bank's foregoing appointment as Borrower's attorney in fact, and all of Bank's rights and powers, coupled with an interest, are irrevocable until all Obligations have been fully repaid and performed and Bank's obligation to provide Credit Extensions terminates.

9.3 Protective Payments. If Borrower fails to obtain the insurance called for by Section 6.5 or fails to pay any premium thereon or fails to pay any other amount which Borrower is obligated to pay under this Agreement or any other Loan Document or which may be required to preserve the Collateral, Bank may obtain such insurance or make such payment, and all amounts so paid by Bank are Bank Expenses and immediately due and payable, bearing interest at the then highest rate applicable to the Obligations, and secured by the Collateral. Bank will make reasonable efforts to provide Borrower with notice of Bank obtaining such insurance at the time it is obtained or within a reasonable time thereafter. No payments by Bank are deemed an agreement to make similar payments in the future or Bank's waiver of any Event of Default.

9.4 Application of Payments and Proceeds Upon Default. If an Event of Default has occurred and is continuing, Bank shall have the right to apply in any order any funds in its possession, whether from Borrower account balances, payments, proceeds realized as the result of any collection of Accounts or other disposition of the Collateral, or otherwise, to the Obligations. Bank shall pay any surplus to Borrower by credit to the Designated Deposit Account or to other Persons legally entitled thereto; Borrower shall remain liable to Bank for any deficiency. If Bank, directly or indirectly, enters into a deferred payment or other credit transaction with any purchaser at any sale of Collateral, Bank shall have the option, exercisable at any time, of either reducing the Obligations by the principal amount of the purchase price or deferring the reduction of the Obligations until the actual receipt by Bank of cash therefor.

9.5 Bank's Liability for Collateral. So long as Bank complies with reasonable banking practices regarding the safekeeping of the Collateral in the possession or under the control of Bank, Bank shall not be liable or responsible for: (a) the safekeeping of the Collateral; (b) any loss or damage to the Collateral; (c) any diminution in the value of the Collateral; or (d) any act or default of any carrier, warehouseman, bailee, or other Person. Borrower bears all risk of loss, damage or destruction of the Collateral.

9.6 No Waiver; Remedies Cumulative. Bank's failure, at any time or times, to require strict performance by Borrower of any provision of this Agreement or any other Loan Document shall not waive, affect, or diminish any right of Bank thereafter to demand strict performance and compliance herewith or therewith. No waiver hereunder shall be effective unless signed by the party granting the waiver and then is only effective for the specific instance and purpose for which it is given. Bank's rights and remedies under this Agreement and the other Loan Documents are cumulative. Bank has all rights and remedies provided under the Code, by law, or in equity. Bank's exercise of one right or remedy is not an election and shall not preclude Bank from exercising any other remedy under this Agreement or other remedy available at law or in equity, and Bank's waiver of any Event of Default is not a continuing waiver. Bank's delay in exercising any remedy is not a waiver, election, or acquiescence.

9.7 Demand Waiver. Borrower waives demand, notice of default or dishonor, notice of payment and nonpayment, notice of any default, nonpayment at maturity, release, compromise, settlement, extension, or renewal of accounts, documents, instruments, chattel paper, and guarantees held by Bank on which Borrower is liable.

10 NOTICES

All notices, consents, requests, approvals, demands, or other communication by any party to this Agreement or any other Loan Document must be in writing and shall be deemed to have been validly served, given, or delivered: (a) upon the earlier of actual receipt and three (3) Business Days after deposit in the U.S. mail, first class, registered or certified mail return receipt requested, with proper postage prepaid; (b) upon transmission, when sent by electronic mail or facsimile transmission; (c) one (1) Business Day after deposit with a reputable overnight courier with all charges prepaid; or (d) when delivered, if hand-delivered by messenger, all of which shall be addressed to the party to be notified and sent to the address, facsimile number, or email address indicated below. Bank or Borrower may change its mailing or electronic mail address or facsimile number by giving the other party written notice thereof in accordance with the terms of this Section 10.

If to Borrower: PIPELINE THERAPEUTICS, INC.
10578 Science Center Drive, Suite 200
San Diego, CA 92121
Attn: Carmine Stengone, CEO
Email:

If to Bank: SILICON VALLEY BANK
4730 La Jolla Village Drive, Suite 1050
San Diego, CA 92122
Attn: Kristine Rohmer
Email:

11 CHOICE OF LAW, VENUE, JURY TRIAL WAIVER, AND JUDICIAL REFERENCE

Except as otherwise expressly provided in any of the Loan Documents, California law governs the Loan Documents without regard to principles of conflicts of law. Borrower and Bank each submit to the exclusive jurisdiction of the State and Federal courts in Santa Clara County, California; provided, however, that nothing in this Agreement shall be deemed to operate to preclude Bank from bringing suit or taking other legal action in any other jurisdiction to realize on the Collateral or any other security for the Obligations, or to enforce a judgment or other court order in favor of Bank. Borrower expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and Borrower hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. Borrower hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made by registered or certified mail addressed to Borrower at the address set forth in, or subsequently provided by Borrower in accordance with, Section 10 of this Agreement and that service so made shall be deemed completed upon the earlier to occur of Borrower's actual receipt thereof or three (3) days after deposit in the U.S. mails, proper postage prepaid.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, BORROWER AND BANK EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS AGREEMENT, THE LOAN DOCUMENTS OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR BOTH PARTIES TO ENTER INTO THIS AGREEMENT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL.

WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY, if the above waiver of the right to a trial by jury is not enforceable, the parties hereto agree that any and all disputes or controversies of any nature between them arising at any time shall be decided by a reference to a private judge, mutually selected by the parties (or, if they cannot agree, by the Presiding Judge of the Santa Clara County, California Superior Court) appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts), sitting without a jury, in Santa Clara County, California; and the parties hereby submit to the jurisdiction of such court. The reference proceedings shall be conducted pursuant to and in accordance with the provisions of California Code of Civil Procedure §§ 638 through 645.1, inclusive. The private judge shall have the power, among others, to grant provisional relief, including without limitation, entering temporary restraining orders, issuing preliminary and permanent injunctions and appointing receivers. All such proceedings shall be closed to the public and confidential and all records relating thereto shall be permanently sealed. If during the course of any dispute, a party desires to seek provisional relief, but a judge has not been appointed at that point pursuant to the judicial reference procedures, then such party may apply to the Santa Clara County, California Superior Court for such relief. The proceeding before the private judge shall be conducted in the same manner as it would be before a court under the rules of evidence applicable to judicial proceedings. The parties shall be entitled to discovery which shall be conducted in the same manner as it would be before a court under the rules of discovery applicable to judicial proceedings. The private judge shall oversee discovery and may enforce all discovery rules and orders applicable to judicial proceedings in the same manner as a trial court judge. The parties agree that the selected or appointed private judge shall have the power to decide all issues in the action or proceeding, whether of fact or of law, and shall report a statement of decision thereon pursuant to California Code of Civil Procedure § 644(a). Nothing in this paragraph shall limit the right of any party at any time to exercise self-help remedies, foreclose against collateral, or obtain provisional remedies. The private judge shall also determine all issues relating to the applicability, interpretation, and enforceability of this paragraph.

This Section 11 shall survive the termination of this Agreement.

12 GENERAL PROVISIONS

12.1 Termination Prior to Term Loan Maturity Date; Survival. All covenants, representations and warranties made in this Agreement continue in full force until this Agreement has terminated pursuant to its terms and all Obligations have been satisfied. So long as Borrower has satisfied the Obligations (other than inchoate indemnity

obligations, any other obligations which, by their terms, are to survive the termination of this Agreement, and any Obligations under Bank Services Agreements that are cash collateralized in accordance with Section 4.1 of this Agreement), this Agreement may be terminated prior to the Term Loan Maturity Date by Borrower, effective three (3) Business Days after written notice of termination is given to Bank. Those obligations that are expressly specified in this Agreement as surviving this Agreement's termination shall continue to survive notwithstanding this Agreement's termination.

12.2 Successors and Assigns. This Agreement binds and is for the benefit of the successors and permitted assigns of each party. Borrower may not assign this Agreement or any rights or obligations under it without Bank's prior written consent (which may be granted or withheld in Bank's discretion). Bank has the right, without the consent of or notice to Borrower, to sell, transfer, assign, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights, and benefits under this Agreement and the other Loan Documents (other than the Warrants, as to which assignment, transfer and other such actions are governed by the terms thereof).

12.3 Indemnification. Borrower agrees to indemnify, defend and hold Bank and its directors, officers, employees, agents, attorneys, or any other Person affiliated with or representing Bank (each, an "**Indemnified Person**") harmless against: (i) all obligations, demands, claims, and liabilities (collectively, "**Claims**") claimed or asserted by any other party in connection with the transactions contemplated by the Loan Documents; and (ii) all losses or expenses (including Bank Expenses) in any way suffered, incurred, or paid by such Indemnified Person as a result of, following from, consequential to, or arising from transactions between Bank and Borrower (including reasonable attorneys' fees and expenses), except for Claims and/or losses directly caused by such Indemnified Person's gross negligence or willful misconduct.

This Section 12.3 shall survive until all statutes of limitation with respect to the Claims, losses, and expenses for which indemnity is given shall have run.

12.4 Time of Essence. Time is of the essence for the performance of all Obligations in this Agreement.

12.5 Severability of Provisions. Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

12.6 Correction of Loan Documents. Bank may correct patent errors and fill in any blanks in the Loan Documents consistent with the agreement of the parties so long as Bank provides Borrower with written notice of such correction and allows Borrower at least ten (10) days to object to such correction. In the event of such objection, such correction shall not be made except by an amendment sign by both Bank and Borrower.

12.7 Amendments in Writing; Waiver; Integration. No purported amendment or modification of any Loan Document, or waiver, discharge or termination of any obligation under any Loan Document, shall be enforceable or admissible unless, and only to the extent, expressly set forth in a writing signed by the party against which enforcement or admission is sought. Without limiting the generality of the foregoing, no oral promise or statement, nor any action, inaction, delay, failure to require performance or course of conduct shall operate as, or evidence, an amendment, supplement or waiver or have any other effect on any Loan Document. Any waiver granted shall be limited to the specific circumstance expressly described in it, and shall not apply to any subsequent or other circumstance, whether similar or dissimilar, or give rise to, or evidence, any obligation or commitment to grant any further waiver. The Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of the Loan Documents merge into the Loan Documents.

12.8 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Agreement.

12.9 Confidentiality. In handling any confidential information, Bank shall exercise the same degree of care that it exercises for its own proprietary information, but disclosure of information may be made: (a) to Bank's Subsidiaries or Affiliates (such Subsidiaries and Affiliates, together with Bank, collectively, "**Bank Entities**")

(provided, however, that any such Bank Entity shall have entered into an agreement containing provisions substantially the same as those in this Section 12.9); (b) to prospective transferees or purchasers of any interest in the Credit Extensions (provided, however, Bank shall use its best efforts to obtain any prospective transferee's or purchaser's agreement to the terms of this provision); (c) as required by law, regulation, subpoena, or other order; (d) to Bank's regulators or as otherwise required in connection with Bank's examination or audit; (e) as Bank considers reasonably appropriate in exercising remedies under the Loan Documents; and (f) to third-party service providers of Bank so long as such service providers have executed a confidentiality agreement with Bank with terms no less restrictive than those contained herein. Confidential information does not include information that is either: (i) in the public domain or in Bank's possession when disclosed to Bank, or becomes part of the public domain (other than as a result of its disclosure by Bank in violation of this Agreement) after disclosure to Bank; or (ii) disclosed to Bank by a third party, if Bank does not know that the third party is prohibited from disclosing the information.

Bank Entities may use anonymous forms of confidential information for aggregate datasets, for analyses or reporting, and for any other uses not expressly prohibited in writing by Borrower. The provisions of the immediately preceding sentence shall survive termination of this Agreement.

12.10 Attorneys' Fees, Costs and Expenses. In any action or proceeding between Borrower and Bank arising out of or relating to the Loan Documents, the prevailing party shall be entitled to recover its reasonable attorneys' fees and other costs and expenses incurred, in addition to any other relief to which it may be entitled.

12.11 Electronic Execution of Documents. The words "execution," "signed," "signature" and words of like import in any Loan Document shall be deemed to include electronic signatures, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity and enforceability as a manually executed signature or the use of a paper-based recordkeeping systems, as the case may be, to the extent and as provided for in any applicable law, including, without limitation, any state law based on the Uniform Electronic Transactions Act.

12.12 Captions. The headings used in this Agreement are for convenience only and shall not affect the interpretation of this Agreement.

12.13 Construction of Agreement. The parties mutually acknowledge that they and their attorneys have participated in the preparation and negotiation of this Agreement. In cases of uncertainty this Agreement shall be construed without regard to which of the parties caused the uncertainty to exist.

12.14 Relationship. The relationship of the parties to this Agreement is determined solely by the provisions of this Agreement. The parties do not intend to create any agency, partnership, joint venture, trust, fiduciary or other relationship with duties or incidents different from those of parties to an arm's-length contract.

12.15 Third Parties. Nothing in this Agreement, whether express or implied, is intended to: (a) confer any benefits, rights or remedies under or by reason of this Agreement on any persons other than the express parties to it and their respective permitted successors and assigns; (b) relieve or discharge the obligation or liability of any person not an express party to this Agreement; or (c) give any person not an express party to this Agreement any right of subrogation or action against any party to this Agreement.

13 DEFINITIONS

13.1 Definitions. As used in the Loan Documents, the word "shall" is mandatory, the word "may" is permissive, the word "or" is not exclusive, the words "includes" and "including" are not limiting, the singular includes the plural, and numbers denoting amounts that are set off in brackets are negative. As used in this Agreement, the following capitalized terms have the following meanings:

"**Account**" is any "account" as defined in the Code with such additions to such term as may hereafter be made, and includes, without limitation, all accounts receivable and other sums owing to Borrower.

"**Account Debtor**" is any "account debtor" as defined in the Code with such additions to such term as may hereafter be made.

"**Affiliate**" is, with respect to any Person, each other Person that owns or controls directly or indirectly the Person, any Person that controls or is controlled by or is under common control with the Person, and each of that Person's senior executive officers, directors, partners and, for any Person that is a limited liability company, that Person's managers and members.

"**Agreement**" is defined in the preamble hereof.

"**Amortization Start Date**" is the first (1st) day of the month immediately following the end of the Interest-Only Period.

"**Authorized Signer**" is any individual listed in Borrower's Borrowing Resolution who is authorized to execute the Loan Documents on behalf of Borrower.

"**Bank**" is defined in the preamble hereof.

"**Bank Entities**" is defined in Section 12.9.

"**Bank Expenses**" are all audit fees and expenses, costs, and expenses (including reasonable attorneys' fees and expenses) for preparing, amending, negotiating, administering, defending and enforcing the Loan Documents (including, without limitation, those incurred in connection with appeals or Insolvency Proceedings) or otherwise incurred with respect to Borrower.

"**Bank Services**" are any products, credit services, and/or financial accommodations previously, now, or hereafter provided to Borrower or any of its Subsidiaries by Bank or any Bank Affiliate, including, without limitation, any letters of credit, cash management services (including, without limitation, merchant services, direct deposit of payroll, business credit cards, and check cashing services), interest rate swap arrangements, and foreign exchange services as any such products or services may be identified in Bank's various agreements related thereto (each, a "**Bank Services Agreement**").

"**Borrower**" is defined in the preamble hereof.

"**Borrower's Books**" are all Borrower's books and records including ledgers, federal and state tax returns, records regarding Borrower's assets or liabilities, the Collateral, business operations or financial condition, and all computer programs or storage or any equipment containing such information.

"**Borrowing Resolutions**" are, with respect to any Person, those resolutions substantially in the form attached hereto as Exhibit D.

"**Business Day**" is any day that is not a Saturday, Sunday or a day on which Bank is closed.

"**Cash Equivalents**" means (a) marketable direct obligations issued or unconditionally guaranteed by the United States or any agency or any State thereof having maturities of not more than one (1) year from the date of acquisition; (b) commercial paper maturing no more than one (1) year after its creation and having the highest rating from either Standard & Poor's Ratings Group or Moody's Investors Service, Inc.; (c) Bank's certificates of deposit issued maturing no more than one (1) year after issue; and (d) money market funds at least ninety-five percent (95.0%) of the assets of which constitute Cash Equivalents of the kinds described in clauses (a) through (c) of this definition.

"**Change in Control**" means (a) at any time, any "person" or "group" (as such terms are used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "***Exchange Act***")), shall become, or obtain rights (whether by means or warrants, options or otherwise) to become, the "beneficial owner" (as defined in Rules 13(d)-3 and 13(d)-5 under the Exchange Act), directly or indirectly, of forty-nine percent (49.0%) or more of the ordinary voting power for the election of directors of Borrower (determined on a fully diluted basis) other than by the sale of Borrower's equity securities in a public offering or to venture capital or private equity investors so long as Borrower identifies to Bank the venture capital or private equity investors at least seven (7) Business Days prior to the closing of the transaction and provides to Bank a description of the material terms of the transaction; (b) during

any period of twelve (12) consecutive months, a majority of the members of the board of directors or other equivalent governing body of Borrower cease to be composed of individuals (i) who were members of that board or equivalent governing body on the first day of such period, (ii) whose election or nomination to that board or equivalent governing body was approved by individuals referred to in clause (i) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body or (iii) whose election or nomination to that board or other equivalent governing body was approved by individuals referred to in clauses (i) and (ii) above constituting at the time of such election or nomination at least a majority of that board or equivalent governing body; (c) at any time, Borrower shall cease to own and control, of record and beneficially, directly or indirectly, one hundred percent (100.0%) of each class of outstanding capital stock of each subsidiary of Borrower free and clear of all Liens (except Liens created by this Agreement).

"**Claims**" is defined in Section 12.3.

"**Code**" is the Uniform Commercial Code, as the same may, from time to time, be enacted and in effect in the State of California; provided, that, to the extent that the Code is used to define any term herein or in any Loan Document and such term is defined differently in different Articles or Divisions of the Code, the definition of such term contained in Article or Division 9 shall govern; provided further, that in the event that, by reason of mandatory provisions of law, any or all of the attachment, perfection, or priority of, or remedies with respect to, Bank's Lien on any Collateral is governed by the Uniform Commercial Code in effect in a jurisdiction other than the State of California, the term "**Code**" shall mean the Uniform Commercial Code as enacted and in effect in such other jurisdiction solely for purposes of the provisions thereof relating to such attachment, perfection, priority, or remedies and for purposes of definitions relating to such provisions.

"**Collateral**" is any and all properties, rights and assets of Borrower described on Exhibit A.

"**Collateral Account**" is any Deposit Account, Securities Account, or Commodity Account.

"**Commodity Account**" is any "commodity account" as defined in the Code with such additions to such term as may hereafter be made.

"**Compliance Statement**" is that certain statement in the form attached hereto as Exhibit B.

"**Contingent Obligation**" is, for any Person, any direct or indirect liability, contingent or not, of that Person for (a) any indebtedness, lease, dividend, letter of credit or other obligation of another such as an obligation, in each case, directly or indirectly guaranteed, endorsed, co-made, discounted or sold with recourse by that Person, or for which that Person is directly or indirectly liable; (b) any obligations for undrawn letters of credit for the account of that Person; and (c) all obligations from any interest rate, currency or commodity swap agreement, interest rate cap or collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; but "Contingent Obligation" does not include endorsements in the ordinary course of business. The amount of a Contingent Obligation is the stated or determined amount of the primary obligation for which the Contingent Obligation is made or, if not determinable, the maximum reasonably anticipated liability for it determined by the Person in good faith; but the amount may not exceed the maximum of the obligations under any guarantee or other support arrangement.

"**Control Agreement**" is any control agreement entered into among the depository institution at which Borrower maintains a Deposit Account or the securities intermediary or commodity intermediary at which Borrower maintains a Securities Account or a Commodity Account, Borrower, and Bank pursuant to which Bank obtains control (within the meaning of the Code) over such Deposit Account, Securities Account, or Commodity Account.

"**Copyrights**" are any and all copyright rights, copyright applications, copyright registrations and like protections in each work of authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret.

"**Credit Extension**" is any Term Loan, or any other extension of credit by Bank for Borrower's benefit.

"**Currency**" is coined money and such other banknotes or other paper money as are authorized by law and circulate as a medium of exchange.

"**Data Milestone**" means Borrower's delivery of evidence to Bank, satisfactory to Bank in its sole but reasonable discretion, that Borrower has achieved positive Phase Ib/IIa data for PIPE-505 which is sufficient to advance into Phase II clinical development, as confirmed by formal decision from the Borrower's Board of Directors to advance into Phase II clinical development.

"**Default Rate**" is defined in Section 2.3(b).

"**Deposit Account**" is any "deposit account" as defined in the Code with such additions to such term as may hereafter be made.

"**Designated Deposit Account**" is the multicurrency account denominated in Dollars, account number xxx-xxxx-7937, maintained by Borrower with Bank.

"**Division**" means, in reference to any Person which is an entity, the division of such Person into two (2) or more separate Persons, with the dividing Person either continuing or terminating its existence as part of such division, including, without limitation, as contemplated under Section 18-217 of the Delaware Limited Liability Company Act for limited liability companies formed under Delaware law, or any analogous action taken pursuant to any other applicable law with respect to any corporation, limited liability company, partnership or other entity.

"**Dollars**," "**dollars**" or use of the sign "**$**" means only lawful money of the United States and not any other currency, regardless of whether that currency uses the "**$**" sign to denote its currency or may be readily converted into lawful money of the United States.

"**Dollar Equivalent**" is, at any time, (a) with respect to any amount denominated in Dollars, such amount, and (b) with respect to any amount denominated in a Foreign Currency, the equivalent amount therefor in Dollars as determined by Bank at such time on the basis of the then-prevailing rate of exchange in San Francisco, California, for sales of the Foreign Currency for transfer to the country issuing such Foreign Currency.

"**Effective Date**" is defined in the preamble hereof.

"**Equity Milestone**" means Borrower's delivery to Bank of evidence, in form and substance satisfactory to Bank in its reasonable discretion, that Borrower has received, after the Effective Date, net cash proceeds in an aggregate amount not less than Thirty Million Dollars ($30,000,000) from the sale of Borrower's equity securities to investors and on terms and conditions acceptable to Bank in its sole but reasonable discretion.

"**Equipment**" is all "equipment" as defined in the Code with such additions to such term as may hereafter be made, and includes without limitation all machinery, fixtures, goods, vehicles (including motor vehicles and trailers), and any interest in any of the foregoing.

"**ERISA**" is the Employee Retirement Income Security Act of 1974, and its regulations.

"**Event of Default**" is defined in Section 8.

"**Exchange Act**" is the Securities Exchange Act of 1934, as amended.

"**FDA**" shall mean the United States Food and Drug Administration, and any successor thereto.

"**Final Payment**" is a payment (in addition to and not a substitution for the regular monthly payments of principal plus accrued interest) due on the earliest to occur of (a) the Term Loan Maturity Date, (b) the acceleration of any Term Loan, or (c) the prepayment of a Term Loan pursuant to Section 2.1.1(c) or (d), equal to the original principal amount of such Term Loan multiplied by the Final Payment Percentage.

"**Final Payment Percentage**" is six percentage points (6.00%).

"**Financial Statement Repository**" is [***] or such other means of collecting information approved and designated by Bank after providing notice thereof to Borrower from time to time.

"**Foreign Currency**" means lawful money of a country other than the United States.

"**Funding Date**" is any date on which a Credit Extension is made to or for the account of Borrower which shall be a Business Day.

"**GAAP**" is generally accepted accounting principles set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other Person as may be approved by a significant segment of the accounting profession, which are applicable to the circumstances as of the date of determination.

"**General Intangibles**" is all "general intangibles" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation, all Intellectual Property, claims, income and other tax refunds, security and other deposits, payment intangibles, contract rights, options to purchase or sell real or personal property, rights in all litigation presently or hereafter pending (whether in contract, tort or otherwise), insurance policies (including without limitation key man, property damage, and business interruption insurance), payments of insurance and rights to payment of any kind.

"**Governmental Approval**" is any consent, authorization, approval, order, license, franchise, permit, certificate, accreditation, registration, filing or notice, of, issued by, from or to, or other act by or in respect of, any Governmental Authority.

"**Governmental Authority**" is any nation or government, any state or other political subdivision thereof, any agency, authority, instrumentality, regulatory body, court, central bank or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative functions of or pertaining to government, any securities exchange and any self-regulatory organization.

"**Indebtedness**" is (a) indebtedness for borrowed money or the deferred price of property or services, such as reimbursement and other obligations for surety bonds and letters of credit, (b) obligations evidenced by notes, bonds, debentures or similar instruments, (c) capital lease obligations, and (d) Contingent Obligations.

"**Indemnified Person**" is defined in Section 12.3.

"**Insolvency Proceeding**" is any proceeding by or against any Person under the United States Bankruptcy Code, or any other bankruptcy or insolvency law, including assignments for the benefit of creditors, compositions, extensions generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

"**Intellectual Property**" means, with respect to any Person, all of such Person's right, title, and interest in and to the following:

(a) its Copyrights, Trademarks and Patents;

(b) any and all trade secrets and trade secret rights, including, without limitation, any rights to unpatented inventions, know-how, operating manuals;

(c) any and all source code;

(d) any and all design rights which may be available to such Person;

(e) any and all claims for damages by way of past, present and future infringement of any of the foregoing, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the Intellectual Property rights identified above; and

(f) all amendments, renewals and extensions of any of the Copyrights, Trademarks or Patents.

"**Interest-Only Period**" means the period commencing on the Effective Date and continuing through December 31, 2021; provided, however, that if Borrower achieves either (i) the Equity Milestone or (ii) the Data Milestone, then the Interest-Only Period shall automatically be extended to June 30, 2022.

"**Inventory**" is all "inventory" as defined in the Code in effect on the date hereof with such additions to such term as may hereafter be made, and includes without limitation all merchandise, raw materials, parts, supplies, packing and shipping materials, work in process and finished products, including without limitation such inventory as is temporarily out of Borrower's custody or possession or in transit and including any returned goods and any documents of title representing any of the above.

"**Investment**" is any beneficial ownership interest in any Person (including stock, partnership interest or other securities), and any loan, advance or capital contribution to any Person.

"**IPO**" means an initial public offering of Borrower's equity securities on a nationally recognized exchange.

"**Key Person**" is each of Borrower's (a) Chief Executive Officer and President, who is Carmine Stengone as of the Effective Date, (b) Chief Science Officer, who is Daniel Lorrain as of the Effective Date, and (c) Chief Medical Officer, who is Stephen Huhn as of the Effective Date.

"**Letter of Credit**" is a standby or commercial letter of credit issued by Bank upon request of Borrower based upon an application, guarantee, indemnity, or similar agreement.

"**Lien**" is a claim, mortgage, deed of trust, levy, charge, pledge, security interest or other encumbrance of any kind, whether voluntarily incurred or arising by operation of law or otherwise against any property.

"**Loan Documents**" are, collectively, this Agreement and any schedules, exhibits, certificates, notices, and any other documents related to this Agreement, the Warrants, any Bank Services Agreement, any subordination agreement, any note, or notes or guaranties executed by Borrower, and any other present or future agreement by Borrower with or for the benefit of Bank in connection with this Agreement or Bank Services, all as amended, restated, or otherwise modified.

"**Material Adverse Change**" is (a) a material impairment in the perfection or priority of Bank's Lien in the Collateral or in the value of such Collateral; (b) a material adverse change in the business, operations, or condition (financial or otherwise) of Borrower; or (c) a material impairment of the prospect of repayment of any portion of the Obligations.

"**Obligations**" are Borrower's obligations to pay when due any debts, principal, interest, fees, Bank Expenses, the Prepayment Fee, the Final Payment Fee, and other amounts Borrower owes Bank now or later, whether under this Agreement, the other Loan Documents (other than the Warrants), or otherwise, including, without limitation, all obligations relating to letters of credit (including reimbursement obligations for drawn and undrawn letters of credit), cash management services, and foreign exchange contracts, if any, and including interest accruing after Insolvency Proceedings begin and debts, liabilities, or obligations of Borrower assigned to Bank, and to perform Borrower's duties under the Loan Documents (other than the Warrants).

"**Operating Documents**" are, for any Person, such Person's formation documents, as certified by the Secretary of State (or equivalent agency) of such Person's jurisdiction of organization on a date that is no earlier than thirty (30) days prior to the Effective Date, and, (a) if such Person is a corporation, its bylaws in current form, (b) if such Person is a limited liability company, its limited liability company agreement (or similar agreement), and (c) if

such Person is a partnership, its partnership agreement (or similar agreement), each of the foregoing with all current amendments or modifications thereto.

"**Patents**" means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

"**Payment/Advance Form**" is that certain form attached hereto as Exhibit C.

"**Perfection Certificate**" is defined in Section 5.1.

"**Permitted Indebtedness**" is:

(a) Borrower's Indebtedness to Bank under this Agreement and the other Loan Documents;

(b) Indebtedness existing on the Effective Date and shown on the Perfection Certificate;

(c) Subordinated Debt;

(d) unsecured Indebtedness to trade creditors incurred in the ordinary course of business;

(e) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;

(f) Indebtedness secured by Liens permitted under clauses (a) and (c) of the definition of "Permitted Liens" hereunder; and

(g) extensions, refinancings, modifications, amendments and restatements of any items of Permitted Indebtedness (a) through (f) above, provided that the principal amount thereof is not increased or the terms thereof are not modified to impose more burdensome terms upon Borrower or its Subsidiary, as the case may be.

"**Permitted Investments**" are:

(a) Investments (including, without limitation, Subsidiaries) existing on the Effective Date and shown on the Perfection Certificate;

(b) (i) Investments consisting of Cash Equivalents, and (ii) any Investments permitted by Borrower's investment policy, as amended from time to time, provided that such investment policy (and any such amendment thereto) has been approved in writing by Bank;

(c) Investments consisting of the endorsement of negotiable instruments for deposit or collection or similar transactions in the ordinary course of Borrower;

(d) Investments consisting of deposit accounts in which Bank has a perfected security interest;

(e) Investments accepted in connection with Transfers permitted by Section 7.1;

(f) Investments consisting of the creation of a Subsidiary for the purpose of consummating a merger transaction permitted by Section 7.3 of this Agreement, which is otherwise a Permitted Investment;

(g) Investments (i) by Borrower in Subsidiaries not to exceed One Hundred Thousand Dollars ($100,000) in the aggregate in any fiscal year and (ii) by Subsidiaries in other Subsidiaries not to exceed One Hundred Thousand Dollars ($100,000) in the aggregate in any fiscal year or in Borrower;

(h) Investments consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers or directors

relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee stock purchase plans or agreements approved by Borrower's Board of Directors;

(i) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of business; and

(j) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business; provided that this paragraph (j) shall not apply to Investments of Borrower in any Subsidiary.

"**Permitted Liens**" are:

(a) Liens existing on the Effective Date and shown on the Perfection Certificate or arising under this Agreement and the other Loan Documents;

(b) Liens for taxes, fees, assessments or other government charges or levies, either (i) not due and payable or (ii) being contested in good faith and for which Borrower maintains adequate reserves on its Books, provided that no notice of any such Lien has been filed or recorded under the Internal Revenue Code of 1986, as amended, and the Treasury Regulations adopted thereunder;

(c) purchase money Liens (i) on Equipment acquired or held by Borrower incurred for financing the acquisition of the Equipment securing no more than One Hundred Fifty Thousand Dollars ($150,000) in the aggregate amount outstanding, or (ii) existing on Equipment when acquired, if the Lien is confined to the property and improvements and the proceeds of the Equipment;

(d) Liens of carriers, warehousemen, suppliers, or other Persons that are possessory in nature arising in the ordinary course of business so long as such Liens attach only to Inventory, securing liabilities in the aggregate amount not to exceed One Hundred Thousand Dollars ($100,000) and which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings which proceedings have the effect of preventing the forfeiture or sale of the property subject thereto;

(e) Liens to secure payment of workers' compensation, employment insurance, old-age pensions, social security and other like obligations incurred in the ordinary course of business (other than Liens imposed by ERISA);

(f) Liens incurred in the extension, renewal or refinancing of the indebtedness secured by Liens described in (a) through (c), but any extension, renewal or replacement Lien must be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness may not increase;

(g) leases or subleases of real property granted in the ordinary course of Borrower's business (or, if referring to another Person, in the ordinary course of such Person's business), and leases, subleases, non-exclusive licenses or sublicenses of personal property (other than Intellectual Property) granted in the ordinary course of Borrower's business (or, if referring to another Person, in the ordinary course of such Person's business), if the leases, subleases, licenses and sublicenses do not prohibit granting Bank a security interest therein; and

(h) non-exclusive license of Intellectual Property granted to third parties in the ordinary course of business, and licenses of Intellectual Property that could not result in a legal transfer of title of the licensed property that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discreet geographical areas outside of the United States.

(i) Liens arising from attachments or judgments, orders, or decrees in circumstances not constituting an Event of Default under Sections 8.4 and 8.7.

"**Person**" is any individual, sole proprietorship, partnership, limited liability company, joint venture, company, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or government agency.

"**Prepayment Fee**" is, with respect to any Term Loan subject to prepayment prior to the Term Loan Maturity Date, whether by mandatory or voluntary prepayment, acceleration or otherwise, an additional fee payable to the Lenders in amount equal to:

(i) for a prepayment made on or prior to the first anniversary of the Effective Date, one percent (1.00%) of the principal amount of the Term Loans prepaid; and

(ii) for a prepayment made after the date which is the first anniversary of the Effective Date and prior to the Term Loan Maturity Date, zero percent (0%) of the principal amount of the Term Loans prepaid.

"**Prime Rate**" is the rate of interest per annum from time to time published in the money rates section of The Wall Street Journal or any successor publication thereto as the "prime rate" then in effect; provided that, in the event such rate of interest is less than zero, such rate shall be deemed to be zero for purposes of this Agreement; and provided further that if such rate of interest, as set forth from time to time in the money rates section of The Wall Street Journal, becomes unavailable for any reason as determined by Bank, the "Prime Rate" shall mean the rate of interest per annum announced by Bank as its prime rate in effect at its principal office in the State of California (such Bank announced Prime Rate not being intended to be the lowest rate of interest charged by Bank in connection with extensions of credit to debtors); provided that, in the event such rate of interest is less than zero, such rate shall be deemed to be zero for purposes of this Agreement.

"**Registered Organization**" is any "registered organization" as defined in the Code with such additions to such term as may hereafter be made.

"**Requirement of Law**" is as to any Person, the organizational or governing documents of such Person, and any law (statutory or common), treaty, rule or regulation or determination of an arbitrator or a court or other Governmental Authority, in each case applicable to or binding upon such Person or any of its property or to which such Person or any of its property is subject.

"**Responsible Officer**" is any of the Chief Executive Officer, President, Chief Science Officer and Chief Medical Officer of Borrower.

"**Restricted License**" is any material license or other material agreement with respect to which Borrower is the licensee (a) that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property, or (b) for which a default under or termination of could interfere with the Bank's right to sell any Collateral.

"**SEC**" shall mean the Securities and Exchange Commission, any successor thereto, and any analogous Governmental Authority.

"**Securities Account**" is any "securities account" as defined in the Code with such additions to such term as may hereafter be made.

"**Subordinated Debt**" is indebtedness incurred by Borrower subordinated to all of Borrower's now or hereafter indebtedness to Bank (pursuant to a subordination, intercreditor, or other similar agreement in form and substance satisfactory to Bank entered into between Bank and the other creditor), on terms acceptable to Bank.

"**Subsidiary**" is, as to any Person, a corporation, partnership, limited liability company or other entity of which shares of stock or other ownership interests having ordinary voting power (other than stock or such other ownership interests having such power only by reason of the happening of a contingency) to elect a majority of the board of directors or other managers of such corporation, partnership or other entity are at the time owned, or the management of which is otherwise controlled, directly or indirectly through one or more intermediaries, or both, by

such Person. Unless the context otherwise requires, each reference to a Subsidiary herein shall be a reference to a Subsidiary of Borrower.

"**Term Loan(s)**" is defined in Section 2.1.1(a) hereof.

"**Term A Loan**" is defined in Section 2.1.1(a) hereof.

"**Term B Loan**" is defined in Section 2.1.1(a) hereof.

"**Term B Draw Period**" is the period of time commencing on the date Borrower achieves the Equity Milestone and ending on June 30, 2021.

"**Term Loan Maturity Date**" is June 1, 2024.

"**Term Loan Payment**" is defined in Section 2.1.1(a)(ii).

"**Trademarks**" means any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks.

"**Transfer**" is defined in Section 7.1.

"**Warrant (Term A Loan)**" means that certain Warrant to Purchase Stock dated as of the Effective Date.

"**Warrant (Term B Loan)**" means that certain Warrant to Purchase Stock dated as of the Funding Date of the Term B Loan and in the form attached hereto as Annex I.

"**Warrants**" are the Warrant (Term A Loan), the Warrant (Term B Loan), and any other Warrant to Purchase stock dated as of any date theretofore or thereafter.

[*Balance of Page Intentionally Left Blank*]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the Effective Date.

BORROWER:

PIPELINE THERAPEUTICS, INC.

By: /s/ Carmine Stengone
Name: Carmine Stengone
Title: Chief Executive Officer and President

BANK:

SILICON VALLEY BANK

By /s/ Annie Kadota
Name: Annie Kadota
Title: Vice President

[*Signature Page to Loan and Security Agreement*]

EXHIBIT A

COLLATERAL DESCRIPTION

The Collateral consists of all of Borrower's right, title and interest in and to the following personal property:

All goods, Accounts (including health-care receivables), Equipment, Inventory, contract rights or rights to payment of money, leases, license agreements, franchise agreements, General Intangibles (except as provided below), commercial tort claims, documents, instruments (including any promissory notes), chattel paper (whether tangible or electronic), cash, deposit accounts, fixtures, letters of credit rights (whether or not the letter of credit is evidenced by a writing), securities, and all other investment property, supporting obligations, and financial assets, whether now owned or hereafter acquired, wherever located; and

all Borrower's Books relating to the foregoing, and any and all claims, rights and interests in any of the above and all substitutions for, additions, attachments, accessories, accessions and improvements to and replacements, products, proceeds and insurance proceeds of any or all of the foregoing.

Notwithstanding the foregoing, the Collateral does not include any Intellectual Property; provided, however, the Collateral shall include all Accounts and all proceeds of Intellectual Property. If a judicial authority (including a U.S. Bankruptcy Court) would hold that a security interest in the underlying Intellectual Property is necessary to have a security interest in such Accounts and such property that are proceeds of Intellectual Property, then the Collateral shall automatically, and effective as of the Effective Date, include the Intellectual Property to the extent necessary to permit perfection of Bank's security interest in such Accounts and such other property of Borrower that are proceeds of the Intellectual Property.

Pursuant to the terms of a certain negative pledge arrangement with Bank, Borrower has agreed not to encumber any of its Intellectual Property without Bank's prior written consent.

EXHIBIT B

COMPLIANCE STATEMENT

TO: SILICON VALLEY BANK Date: _____
FROM: PIPELINE THERAPEUTICS, INC.

Under the terms and conditions of the Loan and Security Agreement between Borrower and Bank (the "Agreement"): Borrower is in complete compliance for the period ending _____ with all required covenants except as noted below. Attached are the required documents evidencing such compliance, setting forth calculations prepared in accordance with GAAP consistently applied from one period to the next except as explained in an accompanying letter or footnotes. Capitalized terms used but not otherwise defined herein shall have the meanings given them in the Agreement.

Please indicate compliance status by circling Yes/No under "Complies" column.

Reporting Covenants	Required	Complies
Board approved projections	FYE within 30 days and within 10 days of any updates/amendments	Yes No
Pre-IPO		
Monthly financial statements with Compliance Statement	Monthly within 30 days	Yes No N/A
Annual financial statement (CPA Audited) + CC	FYE within 180 days	Yes No N/A
Post-IPO		
Quarterly financial statements with Compliance Statement	Quarterly within later of (i) 45 days after the last day of each quarter or (ii) within 5 days of filing with SEC	Yes No N/A
Annual financial statement (CPA Audited) + CC	FYE within 95 days	Yes No N/A
10-Q, 10-K and 8-K	Within 5 days after filing with SEC	Yes No N/A

Other Matters

Have there been any amendments of or other changes to the capitalization table of Borrower and to the Operating Documents of Borrower or any of its Subsidiaries? If yes, provide copies of any such amendments or changes with this Compliance Statement. Yes No

The following are the exceptions with respect to the certification above: (If no exceptions exist, state "No exceptions to note.")

_____

_____

PIPELINE THERAPEUTICS, INC.

By: _____

Name: _____

Title: _____

BANK USE ONLY

Received by: _____
AUTHORIZED SIGNER

Date: _____

Verified: _____
AUTHORIZED SIGNER

Date: _____

Compliance Status: Yes No

EXHIBIT C – LOAN PAYMENT/ADVANCE REQUEST FORM

DEADLINE FOR SAME DAY PROCESSING IS NOON PACIFIC TIME

Fax To: Date: _____

LOAN PAYMENT:

PIPELINE THERAPEUTICS, INC.

From Account #_____ To Account #_____

(Deposit Account #) (Loan Account #)

Principal $_____ and/or Interest $_____

Authorized Signature:_____ Phone Number:_____

Print Name/Title:_____

LOAN ADVANCE:

Complete *Outgoing Wire Request* section below if all or a portion of the funds from this loan advance are for an outgoing wire.

From Account #_____ To Account #_____

(Loan Account #) (Deposit Account #)

Amount of Advance $

All Borrower's representations and warranties in the Loan and Security Agreement are true, correct and complete in all material respects on the date of the request for an advance; provided, however, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; and provided, further that those representations and warranties expressly referring to a specific date shall be true, accurate and complete in all material respects as of such date:

Authorized Signature:_____ Phone Number:_____

Print Name/Title:_____

OUTGOING WIRE REQUEST:
Complete only if all or a portion of funds from the loan advance above is to be wired.
Deadline for same day processing is noon, Pacific Time

Beneficiary Name:_____ Amount of Wire: $_____

Beneficiary Bank:_____ Account Number: _____

City and State:_____

Beneficiary Bank Transit (ABA) #: _____ Beneficiary Bank Code (Swift, Sort, Chip, etc.): _____

(For International Wire Only)

Intermediary Bank: Transit (ABA) #: _____

For Further Credit to: _____

Special Instruction: _____

By signing below, I (we) acknowledge and agree that my (our) funds transfer request shall be processed in accordance with and subject to the terms and conditions set forth in the agreements(s) covering funds transfer service(s), which agreements(s) were previously received and executed by me (us).

Authorized Signature: _____ 2nd Signature (if required): _____

Print Name/Title: _____ Print Name/Title: _____

Telephone #: _____

Telephone #: _____

EXHIBIT D

BORROWING RESOLUTIONS

CORPORATE BORROWING CERTIFICATE

BORROWER: **PIPELINE THERAPEUTICS, INC.** **DATE**: _____
BANK: **SILICON VALLEY BANK**

I hereby certify as follows, as of the date set forth above:

1. I am the Secretary, Assistant Secretary or other officer of Borrower. My title is as set forth below.

2. Borrower's exact legal name is set forth above. Borrower is a corporation existing under the laws of the State of Delaware.

3. Attached hereto are true, correct and complete copies of Borrower's Certificate of Incorporation (including amendments), as filed with the Secretary of State of the state in which Borrower is incorporated as set forth above. Such Certificate of Incorporation have not been amended, annulled, rescinded, revoked or supplemented, and remain in full force and effect as of the date hereof.

4. The following resolutions were duly and validly adopted by Borrower's Board of Directors at a duly held meeting of such directors (or pursuant to a unanimous written consent or other authorized corporate action). Such resolutions are in full force and effect as of the date hereof and have not been in any way modified, repealed, rescinded, amended or revoked, and Silicon Valley Bank ("Bank") may rely on them until Bank receives written notice of revocation from Borrower.

RESOLVED, that **any one** of the following officers or employees of Borrower, whose names, titles and signatures are below, may act on behalf of Borrower:

Name	Title	Signature	Authorized to Add or Remove Signatories
			☐
			☐
			☐
			☐

RESOLVED FURTHER, that **any one** of the persons designated above with a checked box beside his or her name may, from time to time, add or remove any individuals to and from the above list of persons authorized to act on behalf of Borrower.

RESOLVED FURTHER, that such individuals may, on behalf of Borrower:

Borrow Money. Borrow money from Bank.

Execute Loan Documents. Execute any loan documents Bank requires.

Grant Security. Grant Bank a security interest in any of Borrower's assets.

Negotiate Items. Negotiate or discount all drafts, trade acceptances, promissory notes, or other indebtedness in which Borrower has an interest and receive cash or otherwise use the proceeds.

Apply for Letters of Credit. Apply for letters of credit from Bank.

Enter Derivative Transactions. Execute spot or forward foreign exchange contracts, interest rate swap agreements, or other derivative transactions.

Issue Warrants. Issue warrants for Borrower's capital stock.

Further Acts. Designate other individuals to request advances, pay fees and costs and execute other documents or agreements (including documents or agreement that waive Borrower's right to a jury trial) they believe to be necessary to effect these resolutions.

RESOLVED FURTHER, that all acts authorized by the above resolutions and any prior acts relating thereto are ratified.

5. The persons listed above are Borrower's officers or employees with their titles and signatures shown next to their names.

By: _____
Name: _____
Title: _____

ANNEX I

[Form of Warrant for Term B Loan to be attached]

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "ACT"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN SECTIONS 6.3 AND 6.4 BELOW, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR IN FORM AND SUBSTANCE SATISFACTORY TO THE COMPANY, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE STOCK

Company: PIPELINE THERAPEUTICS, INC.
Number of Shares: 88,235
Type/Series of Stock: Series B Preferred Stock
Warrant Price: $1.70 per share
Issue Date: August [__], 2020
Expiration Date: August [__], 2030 **See also Section 6.1(b).**
Credit Facility: This Warrant to Purchase Stock ("**Warrant**") is issued in connection with that certain Loan and Security Agreement of even date herewith between Silicon Valley Bank and the Company (as the same may from time to time be amended, modified, supplemented or restated, the "**Loan Agreement**").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder**") is entitled to purchase the number of fully paid and non-assessable shares (the "**Shares**") of the above-stated Type/Series of Stock (the "**Class**") of the above-named company (the "**Company**") at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Section 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant. Reference is made to Section 6.4 of this Warrant whereby Silicon Valley Bank shall transfer this Warrant to its parent company, SVB Financial Group.

SECTION 1. EXERCISE.

1.1 Method of Exercise. Holder may at any time and from time to time exercise this Warrant, in whole or in part, by delivering to the Company the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2 Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

X = Y(A-B)/A

where:

X = the number of Shares to be issued to the Holder;

Y = the number of Shares with respect to which this Warrant is being exercised (inclusive of the Shares surrendered to the Company in payment of the aggregate Warrant Price);

A = the fair market value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Warrant Price.

1.3 Fair Market Value. If the Company's common stock is then traded or quoted on a nationally recognized securities exchange, inter-dealer quotation system or over-the-counter market (a "**Trading Market**") and the Class is common stock, the fair market value of a Share shall be the closing price or last sale price of a share of common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company. If the Company's common stock is then traded in a Trading Market and the Class is a series of the Company's convertible preferred stock, the fair market value of a Share shall be the closing price or last sale price of a share of the Company's common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company multiplied by the number of shares of the Company's common stock into which a Share is then convertible. If the Company's common stock is not traded in a Trading Market, the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment.

1.4 Delivery of Certificate and New Warrant. Within a reasonable time after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above, the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise and, if this Warrant has not been fully exercised and has not expired, a new warrant of like tenor representing the Shares not so acquired.

1.5 Replacement of Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form, substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation, the Company shall, within a reasonable time, execute and deliver to Holder, in lieu of this Warrant, a new warrant of like tenor and amount.

1.6 Treatment of Warrant upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition**" means any transaction or series of related transactions involving: (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the assets of the Company (ii) any merger or consolidation of the Company into or with another person or entity (other than a merger or consolidation effected

exclusively to change the Company's domicile), or any other corporate reorganization, in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own less than a majority of the Company's (or the surviving or successor entity's) outstanding voting power immediately after such merger, consolidation or reorganization; or (iii) any sale or other transfer by the stockholders of the Company of shares representing at least a majority of the Company's then-total outstanding combined voting power. For the avoidance of doubt, "Acquisition" shall not include any sale and issuance by the Company of shares of its capital stock to one or more investors for cash in a transaction or series of related transactions the primary purpose of which is a bona fide equity financing of the Company where no other shareholder receives cash consideration in connection therewith.

(b) Treatment of Warrant at Acquisition. In the event of an Acquisition in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), and the fair market value of one Share as determined in accordance with Section 1.3 above would be greater than the Warrant Price in effect on such date immediately prior to such Cash/Public Acquisition, and Holder has not exercised this Warrant pursuant to Section 1.1 above as to all Shares, then this Warrant shall automatically be deemed to be exercised pursuant to Section 1.2 above (a "**Cashless Exercise**") as to all Shares effective immediately prior to and contingent upon the consummation of a Cash/Public Acquisition. In connection with such Cashless Exercise, Holder shall be deemed to have restated each of the representations and warranties in Section 4 of the Warrant as of the date thereof and the Company shall promptly notify the Holder of the number of Shares (or such other securities) issued upon exercise. In the event of a Cash/Public Acquisition where the fair market value of one Share as determined in accordance with Section 1.3 above would be less than or equal to the Warrant Price in effect immediately prior to such Cash/Public Acquisition, then this Warrant will automatically expire immediately prior to the consummation of such Cash/Public Acquisition.

(c) Upon the closing of any Acquisition other than a Cash/Public Acquisition defined above, the acquiring, surviving or successor entity shall assume the obligations of this Warrant, and this Warrant shall thereafter be exercisable for the same securities and/or other property as would have been paid for the Shares issuable upon exercise of the unexercised portion of this Warrant as if such Shares were outstanding on and as of the closing of such Acquisition, subject to further adjustment from time to time in accordance with the provisions of this Warrant.

(d) As used in this Warrant, "**Marketable Securities**" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded in a Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise or convert this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such

Acquisition. Notwithstanding the foregoing provisions of this Section 1.6(d), securities held in escrow or subject to holdback to cover indemnification related claims in connection with such Acquisition shall be deemed to be Marketable Securities if they would otherwise be Marketable Securities but for the fact that they are held in escrow or subject to holdback to cover indemnification related claims.

1.7 Pay to Play. In the event that any "pay to play" terms or conditions (i.e. terms or conditions that require a holder of the Company's Preferred Stock to purchase securities in a future round of equity financing or else lose the benefit of such rights, preferences and/or privileges such as anti-dilution protection applicable to the shares of Preferred Stock issuable upon the exercise of this Warrant or have such shares of Preferred Stock automatically convert to common stock or convert to another class and series of the Company's capital stock), are triggered after the date hereof (a "Pay to Play Financing"), then in such event, this Warrant, only to the extent of Shares not previously exercised, shall automatically adjust to provide the Holder with the same securities and/or rights that the Holder would have received had the Holder participated in the Pay to Play Financing to its full pro rata share with respect to the Preferred Stock issuable upon exercise of this Warrant (e.g., if this Warrant provides for the purchase of Series B Preferred Stock, and the Company after the date hereof consummates a Pay to Play Financing in which those holders of Series B Preferred Stock who participate to their full pro rata share in such Pay to Play Financing become entitled to exchange such Series B Preferred Stock for Series C Preferred Stock and those holders of Series B Preferred Stock who do not participate to their full pro rata share will have their Series B Preferred Stock converted into Common Stock, then this Warrant would automatically adjust to provide the right to purchase Series C Preferred Stock instead of Common Stock); provided, however, that in no event shall the value of the adjusted Warrant exceed the value of the Warrant as of the date immediately prior to the Pay to Play Financing (calculated based on the multiplying the number of shares by the exercise price set forth on the first page hereof).

SECTION 2. ADJUSTMENTS TO THE SHARES AND WARRANT PRICE.

2.1 Stock Dividends, Splits, Etc. If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in common stock or other securities or property (other than cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2 Reclassification, Exchange, Combinations or Substitution. Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares

been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations substitutions, replacements or other similar events.

2.3 Conversion of Preferred Stock. If the Class is a class and series of the Company's convertible preferred stock, in the event that all outstanding shares of the Class are converted, automatically or by action of the holders thereof, into common stock pursuant to the provisions of the Company's Certificate of Incorporation, including, without limitation, in connection with the Company's initial, underwritten public offering and sale of its common stock pursuant to an effective registration statement under the Act (the "**IPO**"), then from and after the date on which all outstanding shares of the Class have been so converted, this Warrant shall be exercisable for such number of shares of common stock into which the Shares would have been converted had the Shares been outstanding on the date of such conversion, and the Warrant Price shall equal the Warrant Price in effect as of immediately prior to such conversion divided by the number of shares of common stock into which one Share would have been converted, all subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant.

2.4 Adjustments for Diluting Issuances. Without duplication of any adjustment otherwise provided for in this Section 2, the number of shares of common stock issuable upon conversion of the Shares shall be subject to anti-dilution adjustment from time to time in the manner set forth in the Company's Articles or Certificate of Incorporation as if the Shares were issued and outstanding on and as of the date of any such required adjustment.

2.5 No Fractional Share. No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share, less (ii) the then-effective Warrant Price.

2.6 Notice/Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company, at the Company's expense, shall notify Holder in writing within a reasonable time setting forth the adjustments to the Warrant Price, Class and/or number of Shares and facts upon which such adjustment is based. The Company shall, upon written request from Holder, furnish Holder with a certificate of its Chief Financial Officer, including computations of such adjustment and the Warrant Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1 Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the price per share at which shares of the Class were last sold and issued prior to the

Issue Date hereof in an arms-length transaction in which at least Five Hundred Thousand Dollars ($500,000) of such shares were sold.

(b) All Shares which may be issued upon the exercise of this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, upon issuance, be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein or under applicable federal and state securities laws. The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class, common stock and other securities as will be sufficient to permit the exercise in full of this Warrant and the conversion of the Shares into common stock or such other securities.

(c) The Company's capitalization table attached hereto as Schedule 1 is true and complete, in all material respects, as of the Issue Date.

3.2 Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of the Class or common stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual participation or pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of the Class;

(d) effect an Acquisition or to liquidate, dissolve or wind up; or

(e) effect an IPO;

then, in connection with each such event, the Company shall give Holder:

(1) in the case of the matters referred to in (a) and (b) above, at least seven (7) Business Days prior written notice of the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of outstanding shares of the Class will be entitled thereto) or for determining rights to vote, if any.

(2) in the case of the matters referred to in (c) and (d) above at least seven (7) Business Days prior written notice of the date when the same will take place (and specifying the date on which the holders of outstanding shares of the Class will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event and such reasonable information as Holder may reasonably require regarding the treatment of this Warrant in connection with such event giving rise to the notice); and

(3) with respect to the IPO, at least seven (7) Business Days prior written notice of the date on which the Company proposes to publicly file its registration statement in connection therewith.

Company will also provide information requested by Holder that is reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements.

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1 Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2 Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3 Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4 Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5 The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6 Market Stand-off Agreement. The Holder agrees that the Shares shall be subject to the Market Standoff provisions in Section [__] of the Investor Rights Agreement or similar agreement.

4.7 No Voting Rights. Holder, as a Holder of this Warrant, will not have any voting rights until the exercise of this Warrant.

SECTION 5. GOVERNING LAW, VENUE, JURY TRIAL WAIVER, AND JUDICIAL REFERENCE.

5.1 Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

5.2 Jurisdiction and Venue. The Company and Holder each submit to the exclusive jurisdiction of the State and Federal courts in Santa Clara County, California; provided, however, that nothing in this Warrant shall be deemed to operate to preclude Holder from bringing suit or taking other legal action in any other jurisdiction to enforce a judgment or other court order in favor of Holder. The Company expressly submits and consents in advance to such jurisdiction in any action or suit commenced in any such court, and the Company hereby waives any objection that it may have based upon lack of personal jurisdiction, improper venue, or forum non conveniens and hereby consents to the granting of such legal or equitable relief as is deemed appropriate by such court. The Company hereby waives personal service of the summons, complaints, and other process issued in such action or suit and agrees that service of such summons, complaints, and other process may be made in accordance with Section 6.5 of this Warrant.

5.3 Jury Trial Waiver. **TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, THE COMPANY AND HOLDER EACH WAIVE THEIR RIGHT TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION ARISING OUT OF OR BASED UPON THIS WARRANT, THE LOAN AGREEMENT OR ANY CONTEMPLATED TRANSACTION, INCLUDING CONTRACT, TORT, BREACH OF DUTY AND ALL OTHER CLAIMS. THIS WAIVER IS A MATERIAL INDUCEMENT FOR THE PARTIES' AGREEMENT TO THIS WARRANT. EACH PARTY HAS REVIEWED THIS WAIVER WITH ITS COUNSEL**.

5.4 Judicial Reference. WITHOUT INTENDING IN ANY WAY TO LIMIT THE PARTIES' AGREEMENT TO WAIVE THEIR RESPECTIVE RIGHT TO A TRIAL BY JURY, if the waiver of the right to a trial by jury in Section 5.3 above is not enforceable, the parties agree that any and all disputes or controversies of any nature between them arising at any time shall be decided by a reference to a private judge, mutually selected by the parties (or, if they cannot agree, by the Presiding Judge of the Santa Clara County, California Superior Court) appointed in accordance with California Code of Civil Procedure Section 638 (or pursuant to comparable provisions of federal law if the dispute falls within the exclusive jurisdiction of the federal courts), sitting without a jury, in Santa Clara County, California; and the parties hereby submit to the jurisdiction of such court. The reference proceedings shall be conducted pursuant to and in accordance with the provisions of California Code of Civil Procedure §§ 638 through 645.1,

inclusive. The private judge shall have the power, among others, to grant provisional relief, including without limitation, entering temporary restraining orders, issuing preliminary and permanent injunctions and appointing receivers. All such proceedings shall be closed to the public and confidential and all records relating thereto shall be permanently sealed. If during the course of any dispute, a party desires to seek provisional relief, but a judge has not been appointed at that point pursuant to the judicial reference procedures, then such party may apply to the Santa Clara County, California Superior Court for such relief. The proceeding before the private judge shall be conducted in the same manner as it would be before a court under the rules of evidence applicable to judicial proceedings. The parties shall be entitled to discovery which shall be conducted in the same manner as it would be before a court under the rules of discovery applicable to judicial proceedings. The private judge shall oversee discovery and may enforce all discovery rules and orders applicable to judicial proceedings in the same manner as a trial court judge. The parties agree that the selected or appointed private judge shall have the power to decide all issues in the action or proceeding, whether of fact or of law, and shall report a statement of decision thereon pursuant to California Code of Civil Procedure § 644(a). Nothing in this paragraph shall limit the right of any party at any time to exercise self-help remedies or obtain provisional remedies. The private judge shall also determine all issues relating to the applicability, interpretation, and enforceability of this paragraph.

5.5 Survival. This Section 5 shall survive the termination of this Warrant.

SECTION 6. MISCELLANEOUS.

6.1 Term and Automatic Conversion upon Expiration.

(a) Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before 6:00 PM, Pacific time, on the Expiration Date and shall be void thereafter.

(b) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Shares (or such other securities) issued upon such exercise to Holder.

6.2 Legends. The Shares (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) shall be imprinted with a legend in substantially the following form:

> THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE ISSUER TO SILICON VALLEY BANK DATED AUGUST [__], 2020, MAY NOT BE

OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

6.3 Compliance with Securities Laws on Transfer. This Warrant and the Shares issuable upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part except in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Silicon Valley Bank, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144 promulgated under the Act.

6.4 Transfer Procedure. After receipt by Silicon Valley Bank of the executed Warrant, Silicon Valley Bank will transfer all of this Warrant to its parent company, SVB Financial Group. By its acceptance of this Warrant, SVB Financial Group hereby makes to the Company each of the representations and warranties set forth in Section 4 hereof and agrees to be bound by all of the terms and conditions of this Warrant as if the original Holder hereof. Subject to the provisions of Section 6.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant or the Shares issuable upon exercise of this Warrant (or the securities issuable directly or indirectly, upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable); and provided further, that any subsequent transferee other than SVB Financial Group shall agree in writing with the Company to be bound by all of the terms and conditions of this Warrant. Notwithstanding any contrary provision herein, at all times prior to the IPO, Holder may not, without the Company's prior written consent, transfer this Warrant or any portion hereof, or any Shares issued upon any exercise hereof, or any shares or other securities issued upon any conversion of any Shares issued upon any exercise hereof, to any person or entity who directly competes with the Company, except in connection with an Acquisition of the Company by such a direct competitor.

6.5 Notices. All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 6.5. All notices to

Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

SVB Financial Group
Attn: Treasury Department
3003 Tasman Drive, HC 215
Santa Clara, CA 95054
Telephone:
Facsimile:
Email address:

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

PIPELINE THERAPEUTICS, INC.
10578 Science Center Drive, Suite 200
San Diego, CA 92121
Attn: Carmine Stengone, CEO
Email:

With a copy (which shall not constitute notice) to:

Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP
c/o Jeffrey Thacker
3570 Carmel Mountain Road
Suite 200
San Diego, CA 92130
Email:

6.6 Waiver. Notwithstanding any contrary provision herein or in the Loan Agreement, this Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

6.7 Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

6.8 Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement. Any signature page delivered electronically or by facsimile shall be binding to the same extent as an original signature page with regards to any agreement subject to the terms hereof or any amendment thereto.

6.9 Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

6.10 Business Days. "**Business Day**" is any day that is not a Saturday, Sunday or a day on which Silicon Valley Bank is closed.

[Remainder of page left blank intentionally]
[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

"COMPANY"

PIPELINE THERAPEUTICS, INC.

By:_____

Name:_____

Title:_____

"HOLDER"

SILICON VALLEY BANK

By:_____

Name:_____

Title:_____

APPENDIX 1

NOTICE OF EXERCISE OF WARRANT

1. The undersigned Holder hereby exercises its right to purchase _____ shares of the Series B Preferred Stock of PIPELINE THERAPEUTICS, INC. (the "Company") in accordance with the attached Warrant to Purchase Stock, and tenders payment of the aggregate Warrant Price for such shares as follows:

☐ check in the amount of $_____ payable to the order of the Company enclosed herewith

☐ Wire transfer of immediately available funds to the Company's account

☐ Cashless Exercise pursuant to Section 1.2 of the Warrant

☐ Other [Describe] _____

2. Please issue a certificate or certificates representing the Shares in the name specified below:

_____
Holder's Name

_____

_____
(Address)

3. By its execution below and for the benefit of the Company, Holder hereby restates each of the representations and warranties in Section 4 of the Warrant to Purchase Stock as of the date hereof.

HOLDER:

_____

By: _____

Name: _____

Title: _____

(Date): _____

Exhibit 10.15

FIRST AMENDMENT TO LOAN AND SECURITY AGREEMENT

This **FIRST AMENDMENT** to Loan and Security Agreement (this "Agreement") is entered into as of March 15, 2021, by and between **SILICON VALLEY BANK**, a California corporation ("Bank"), and **PIPELINE THERAPEUTICS, INC.**, a Delaware corporation ("Borrower").

RECITALS

A. Bank and Borrower have entered into that certain Loan and Security Agreement dated as of September 1, 2020 (as the same may from time to time be amended, modified, supplemented or restated, the "Loan Agreement"). Bank has extended credit to Borrower for the purposes permitted in the Loan Agreement.

B. Borrower has requested that Bank amend the Loan Agreement to allow Borrower to hold excess cash outside of Bank.

C. Bank has agreed to so amend certain provisions of the Loan Agreement, but only to the extent, in accordance with the terms, subject to the conditions and in reliance upon the representations and warranties set forth below.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing recitals and other good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and intending to be legally bound, the parties hereto agree as follows:

1. Definitions. Capitalized terms used but not defined in this Agreement shall have the meanings given to them in the Loan Agreement.

2. Amendments to Loan Agreement.

2.1 Section 6.6 (Operating Accounts). Sections 6.6(a) and 6.6(c) are amended in their entirety and replaced with the following:

"(a) Maintain its and all of its Subsidiaries' operating accounts with Bank and Bank's Affiliates; provided, however, notwithstanding the foregoing, Borrower may maintain excess cash in Collateral Accounts outside of Bank at any time so long as Borrower complies with Section 6.6(c) below with respect thereto.

(c) In addition to and without limiting the restrictions in subsection (a) above, Borrower shall provide Bank five (5) days prior written notice before establishing any Collateral Account at or with any bank or financial institution other than Bank or Bank's Affiliates. For each

Collateral Account that Borrower at any time maintains, Borrower shall cause the applicable bank or financial institution (other than Bank) at or with which any Collateral Account is maintained to execute and deliver a Control Agreement or other appropriate instrument with respect to such Collateral Account to perfect Bank's Lien in such Collateral Account in accordance with the terms hereunder which Control Agreement may not be terminated without the prior written consent of Bank. The provisions of the previous sentence shall not apply to deposit accounts exclusively used for payroll, payroll taxes and other employee wage and benefit payments to or for the benefit of Borrower's employees and identified to Bank by Borrower as such."

3. Limitation of Amendments.

3.1 This Agreement is effective for the purposes set forth herein and shall be limited precisely as written and shall not be deemed to (a) be a consent to any amendment, waiver or modification of any other term or condition of any Loan Document, or (b) otherwise prejudice any right or remedy which Bank may now have or may have in the future under or in connection with any Loan Document.

3.2 This Agreement shall be construed in connection with and as part of the Loan Documents, and all terms, conditions, representations, warranties, covenants and agreements set forth in the Loan Documents are hereby ratified and confirmed and shall remain in full force and effect.

4. Representations and Warranties. To induce Bank to enter into this Agreement, Borrower hereby represents and warrants to Bank as follows:

4.1 Immediately after giving effect to this Agreement (a) the representations and warranties contained in the Loan Documents are true, accurate and complete in all material respects as of the date hereof (except to the extent such representations and warranties relate to an earlier date, in which case they are true and correct as of such date), and (b) no Event of Default has occurred and is continuing;

4.2 Borrower has the power and authority to execute and deliver this Agreement and to perform its obligations under the Loan Agreement;

4.3 The organizational documents of Borrower delivered to Bank on the Effective Date remain true, accurate and complete and have not been amended, supplemented or restated and are and continue to be in full force and effect;

4.4 The execution and delivery by Borrower of this Agreement and the performance by Borrower of its obligations under the Loan Agreement have been duly authorized by all necessary action on the part of Borrower;

4.5 The execution and delivery by Borrower of this Agreement and the performance by Borrower of its obligations under the Loan Agreement do not and will not contravene (a) any law or regulation binding on or affecting Borrower, (b) any contractual restriction with a Person binding on Borrower, (c) any order, judgment or decree of any court or other governmental or public body or authority, or subdivision thereof, binding on Borrower, or (d) the organizational documents of Borrower;

4.6 The execution and delivery by Borrower of this Agreement and the performance by Borrower of its obligations under the Loan Agreement do not require any order, consent, approval, license, authorization or validation of, or filing, recording or registration with, or exemption by any governmental or public body or authority, or subdivision thereof, binding on either Borrower, except as already has been obtained or made; and

4.7 This Agreement has been duly executed and delivered by Borrower and is the binding obligation of Borrower, enforceable against Borrower in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, liquidation, moratorium or other similar laws of general application and equitable principles relating to or affecting creditors' rights.

5. Prior Agreement. The Loan Documents are hereby ratified and reaffirmed and shall remain in full force and effect. This Agreement is not a novation and the terms and conditions of this Agreement shall be in addition to and supplemental to all terms and conditions set forth in the Loan Documents. In the event of any conflict or inconsistency between this Agreement and the terms of such documents, the terms of this Agreement shall be controlling, but such document shall not otherwise be affected or the rights therein impaired.

6. Integration. This Agreement and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Agreement and the Loan Documents merge into this Agreement and the Loan Documents.

7. Counterparts. This Agreement may be executed in any number of counterparts and all of such counterparts taken together shall be deemed to constitute one and the same instrument.

8. Effectiveness. This Agreement shall be deemed effective upon (a) the due execution of this Agreement by each of the parties hereto, and (b) Borrower's payment to Bank of all Bank Expenses due and owing as of the date hereof, which, in each case, may be debited from any of Borrower's accounts at Bank.

9. Miscellaneous.

9.1 This Agreement shall constitute a Loan Document under the Loan Agreement; the failure to comply with the covenants contained herein shall constitute an Event of Default under the Loan Agreement; and all obligations included in this Agreement

(including, without limitation, all obligations for the payment of principal, interest, fees, and other amounts and expenses) shall constitute obligations under the Loan Agreement and secured by the Collateral.

9.2 Each provision of this Agreement is severable from every other provision in determining the enforceability of any provision.

10. Governing Law. This Agreement and the rights and obligations of the parties hereto shall be governed by and construed in accordance with the laws of the State of California.

[Signature page follows.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered as of the date first written above.

BANK:

SILICON VALLEY BANK

By: /s/ Kristine Rohmer
Name: Kristine Rohmer
Title: Vice President

BORROWER:

PIPELINE THERAPEUTICS, INC.

By: /s/ Peter Slover
Name: Peter Slover
Title: Chief Financial Officer

Exhibit 10.16

CERTAIN IDENTIFIED INFORMATION HAS BEEN OMITTED FROM THIS DOCUMENT BECAUSE IT IS BOTH NOT MATERIAL AND IS THE TYPE THAT THE REGISTRANT TREATS AS PRIVATE OR CONFIDENTIAL, AND HAS BEEN MARKED WITH "[***]" TO INDICATE WHERE OMISSIONS HAVE BEEN MADE.

Execution Version
Confidential

LICENSE AGREEMENT BY AND BETWEEN

JANSSEN PHARMACEUTICA NV AND

PIPELINE THERAPEUTICS, INC.

Dated February 3, 2023

TABLE OF CONTENTS

LICENSE AGREEMENT

This License Agreement (this "**Agreement**") is entered into as of February 3, 2023 (the "**Execution Date**") by and between Pipeline Therapeutics, Inc., a Delaware corporation ("**Licensor**"), on the one hand, and Janssen Pharmaceutica NV, a Belgium company ("**Janssen**"), on the other hand. Licensor and Janssen are referred to in this Agreement each individually as a "**Party**" and collectively as the "**Parties**."

INTRODUCTION

WHEREAS, Licensor controls certain patents, know-how and other rights related to the Licensed Compounds and Licensed Products;

WHEREAS, Janssen has considerable knowledge and experience in developing and commercializing drugs and biological products throughout the world; and

WHEREAS, Licensor desires to grant to Janssen an exclusive license to develop, manufacture, commercialize and otherwise exploit Licensed Compounds and Licensed Products in the Field in the Territory on and subject to the terms and conditions set forth in this Agreement;

NOW, THEREFORE, for and in consideration of the mutual covenants contained in this Agreement, the Parties agree as follows:

ARTICLE 1
DEFINITIONS

1.1 "**Acquirer**" means any Third Party that is a counterparty in any Change of Control transaction.

1.2 "**Acquirer Technology**" means (a) any Patents or Know-How Controlled by the Acquirer (or any Affiliate of Acquirer other than those of the Licensor Pre-Existing Organization) and not Controlled by any of the Licensor Pre-Existing Organization prior to consummation of such Change of Control or (b) any Patents or Know-How Controlled by Acquirer (or any other Affiliate of Acquirer other than those of the [***]) following the [***] (other than [***]).

1.3 "**Action**" means any claim, action, cause of action or suit (whether in contract, tort or otherwise), litigation (whether at law or in equity, whether civil or criminal), controversy, assessment, arbitration, investigation, hearing, charge, complaint, demand, notice or proceeding of, to, from, by or before any Governmental Authority.

1.4 "**Affiliate**" means, with respect to a Person, any other Person directly or indirectly controlling, controlled by, or under common control with, such first Person at any time for so long as such Person controls, is controlled by or is under common control with such first Person. For purposes of this definition, the term "control" (including the correlative meanings of the terms "controlled by" and "under common control with"), as used with respect to any Person, means (a) in the case of a Person that is a corporate entity, direct or indirect ownership of stocks or shares having 50% or more of the right to vote for the election of directors of such Person and (b) in the case of a Person that is an entity, but is not a corporate entity, the possession, directly or indirectly, of the power to direct or cause the direction of the management policies of such Person, whether through the ownership of voting securities, by contract, or otherwise.

1.5 "**Annual Aggregate Net Sales of Licensed Products**" means, with respect to a Calendar Year, the aggregate Net Sales of all Licensed Products in all countries in the Territory during such Calendar Year, but excluding any Net Sales of a Licensed Product in a country occurring (a) prior to the start of the Royalty Term with respect to such Licensed Product in such country or (b) following the expiration of the Royalty Term with respect to such Licensed Product in such country.

1.6 "**Business Day**" means a day on which banking institutions in New York, New York are open for business.

1.7 "**Calendar Quarter**" means a quarter based on the Johnson & Johnson Universal Calendar for the applicable year (a copy of which is attached hereto as Exhibit 1.7).

1.8 "**Calendar Year**" means a year based on the Johnson & Johnson Universal Calendar for the applicable year (a copy of which is attached hereto as Exhibit 1.7).

1.9 "**Change of Control**" means, at any time on or after the date of this Agreement, with respect to Licensor (and any of its successors):

(a) the acquisition, directly or indirectly, by any individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Exchange Act) (a "**Specified Person**"), of Beneficial Ownership of 50% or more of either (i) the then outstanding ordinary (or common) shares of such company (the "**Outstanding Common Stock**") or (ii) the combined voting power of the then outstanding voting securities of such company entitled to vote generally in the election of directors (the "**Outstanding Voting Securities**"); provided, however, that for purposes of this subclause (a), any acquisition of securities of such company by any Person pursuant to a transaction which complies with clauses (i) and (ii) of subclause (c) of this definition will not constitute a Change of Control of such company;

(b) individuals who, as of the Execution Date, constitute the Board of Directors of such company (the "**Incumbent Board**") cease for any reason to constitute at least a majority of the Board of Directors of such company; provided, however, that any individual becoming a director subsequent to the Execution Date whose election, or nomination for election by such company's shareholders, was approved by a vote of at least a majority of the directors then comprising the Incumbent Board will be considered as though such individual were a member of the Incumbent Board, but excluding, for this purpose, any such individual whose initial assumption of office occurs as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents by or on behalf of any Person other than the Board of Directors of such company;

(c) consummation of a merger, consolidation, or other similar extraordinary transaction, or sale or other disposition of all or substantially all of the assets (any of the foregoing, a "**Business Combination**") of such company, in each case, unless, immediately after such Business Combination, (i) the individuals and entities who were the Beneficial Owners,

respectively, of the Outstanding Common Stock and Outstanding Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of, respectively, the then outstanding shares of common stock and the combined voting power of the then outstanding voting securities entitled to vote generally in the election of directors, as the case may be, of the corporation or other entity resulting from such Business Combination (including a corporation which as a result of such transaction owns the then outstanding securities of such company or all or substantially all of such company's assets either directly or through one or more subsidiaries) in substantially the same proportions as their ownership, immediately prior to such Business Combination, of the Outstanding Common Stock and Outstanding Voting Securities, as the case may be, and (ii) more than 50% of the members of the board of directors of the corporation resulting from such Business Combination were members of the Incumbent Board at the time of the execution of the initial agreement, or of the action of the Board of Directors of such company, providing for such Business Combination;

(d) approval by the shareholders of such company of a complete liquidation or dissolution of such company; or

(e) the sale or disposition to a Third Party of assets or businesses that constitute 50% or more of the total revenue or assets of a Party (determined on a consolidated basis), including such Party's assets or business related to the Licensed Compounds and Licensed Products.

For purposes of this definition, a Person will be deemed the "**Beneficial Owner**" of, and will be deemed to "**beneficially own**", and will be deemed to have "**Beneficial Ownership**" of, any securities:

(i) which such Person or any of such Person's Affiliates is deemed to "beneficially own" within the meaning of Rule 13d-3 promulgated under the Exchange Act; or

(ii) which such Person or any of such Person's Affiliates has, directly or indirectly: (1) the right to acquire (whether such right is exercisable immediately or only after the passage of time) pursuant to any agreement, arrangement or understanding (written or oral), or upon the exercise of conversion rights, exchange rights, rights, warrants or options, or otherwise; provided, however, that a Person will not be deemed under this clause (1) to be the Beneficial Owner of, or to beneficially own, or to have Beneficial Ownership of, any securities tendered pursuant to a tender or exchange offer made by or on behalf of such Person or any of such Person's Affiliates until such tendered securities are accepted for purchase or exchange thereunder or cease to be subject to withdrawal by the tendering security holder; or (2) the right to vote or dispose of, including pursuant to any agreement, arrangement or understanding (written or oral); provided, however, that a Person will not be deemed under this clause (2) to be the Beneficial Owner of, or to beneficially own, or to have Beneficial Ownership of, any security if (x) the agreement, arrangement or understanding (written or oral) to vote such security arises solely from a revocable proxy or consent given to such Person in response to a public proxy or consent solicitation made generally to all holders of the Outstanding Common Stock or Outstanding Voting Securities of the issuer of such security in accordance with the applicable rules and regulations under the Exchange Act and (y) the beneficial ownership of such security is not also then reportable on Schedule 13D or 13G under the Exchange Act (or any comparable or successor report); or

(iii) which are beneficially owned, directly or indirectly, by any other Person with which such Person (or any of such Person's Affiliates) has (1) any agreement, arrangement or understanding (written or oral) for the purpose of acquiring, holding, voting (except pursuant to a revocable proxy as described in the proviso to subclause (ii)(2) of this definition) or disposing of any ordinary (or common) shares or voting securities of the issuer of such security or (2) any agreement, arrangement or understanding (written or oral) to cooperate in obtaining, changing or influencing the control of the issuer of such security; or

(iv) which are the subject of, or the reference securities for, or that underlie, any Derivative Interest of such Person or any of such Person's Affiliates, with the number of ordinary (or common) shares or voting securities deemed Beneficially Owned being the notional or other number of ordinary (or common) shares or voting securities specified in (or determined pursuant to) the documentation evidencing the Derivative Interest as being subject to be acquired upon the exercise or settlement of the Derivative Interest or as the basis upon which the value or settlement amount of such Derivative Interest is to be calculated in whole or in part.

1.10 "**Clinical Study**" means any study in which human subjects are dosed or treated with a drug or biological product, whether approved or investigational.

1.11 "**Combination Product**" means (a) any product containing a Licensed Compound and one or more other active ingredients in a fixed-dose formulation, (b) any combination of a Licensed Product sold together with another drug or biological product in a single package or container for a single price, or (c) any combination of a Licensed Product sold together with a delivery device or system in a single package or container for a single price (any such other active ingredient, drug or biological product or delivery device or system described in clause (a) through (c), an "**Other Component**").

1.12 "**Commercialization**" or "**Commercialize**" means marketing, promoting, detailing, distributing, importing, exporting, offering for sale or selling a drug or biological product, including medical affairs activities, regulatory activities directed to obtaining pricing and reimbursement approvals, price calculations and related reporting to Governmental Authorities, and interacting with Regulatory Authorities with respect to the foregoing.

1.13 "**Commercialization Approval**" means, with respect to a Licensed Product and any country or regulatory jurisdiction, receipt of [***]:

(a) [***].

(b) [***].

(c) [***].

(d) [***].

(e) [***].

1.14 "**Commercially Reasonable Efforts**" means [***].

1.15 "**Competitive Change of Control**" means a Change of Control where the Acquirer is: (a) a Person (or an Affiliate of such a Person) [***]; or (b) a Person named on Schedule 1.15 (or an Affiliate or successor-in-interest of any of such Persons).

1.16 "**Controlled**" or "**Control**" means, with respect to Know-How, Patents, or intellectual property rights, the legal authority or right, whether by ownership, license or otherwise (except pursuant to a license granted under this Agreement), of a Party or any of its Affiliates to grant a license or sublicense under such Know-How, Patents or intellectual property rights to the other Party (or, in the case of Know-How, the legal authority or right to disclose such Know-How to the other Party) without violating or breaching any Original In-License Terms (or, in the case of Know-How, misappropriating such Know-How).

Notwithstanding the foregoing, Licensor and its Affiliates will not be deemed to Control any [***] (and, accordingly, Licensed Technology shall not include [***]) unless, and solely to the extent that, such [***] is: (i) used by Licensor or the Acquirer, or any of their respective Affiliates, to Exploit any Licensed Compound or Licensed Product; or (ii) in the case of [***] that is Know-How, is disclosed by or for Licensor, an Acquirer or their Affiliates to Janssen under this Agreement or in connection with Janssen's Exploitation of any Licensed Compound or Licensed Product.

1.17 "**Cover**" means, with respect to a Patent and a product, that, in the absence of ownership of or a license under such Patent, the performance of an act with respect to such product (e.g., with respect to a Patent in the U.S., the performance of an act of manufacture, use, sale, offer for sale or importation of such product) would infringe a claim of such Patent [***].

1.18 "**Currency Hedge Rate**" means the Johnson & Johnson currency hedge rate, which is the result of the effectively performed currency hedging at Johnson & Johnson for the upcoming Calendar Year and will be set up once a Calendar Year and will remain constant throughout such Calendar Year. The Johnson & Johnson currency hedge rate is calculated as a weighted average hedge rate of the outstanding external foreign currency forward hedge contracts of Johnson & Johnson with Third Party banks.

1.19 "**Derivative Interest**" means any derivative security (as defined under Rule 16a-1 under the Exchange Act) that increases in value as the value of some other ordinary (or common) share or voting security increases, including, but not limited to, a long convertible security, a long call option and a short put option position, in each case regardless of whether (x) such derivative security conveys any voting rights in such other ordinary (or common) share or voting security, (y) such derivative security is required to be, or is capable of being, settled through delivery of such other ordinary (or common) share or voting security or (z) any transaction hedges the economic effect of such derivative security.

1.20 "**Designated Provider**" has the meaning set forth on Schedule 1.20.

1.21 "**Development**" means:

(a) non-clinical and clinical research and drug development activities designed to generate data to obtain, maintain or support Commercialization Approval of a drug or biological product, including assay development, toxicology, pharmacology, data collection and management, statistical analysis, Clinical Studies (including medical affairs studies, post-approval commitments and post-marketing requirements, investigator-initiated studies, cooperative group studies and Clinical Studies conducted for purposes of a new Indication or label expansion) and development of companion diagnostics;

(b) test method development and stability testing, process development, process validation, process scale-up, formulation development, delivery system development, quality assurance and quality control development, technology transfer and other related activities directed to establishing Manufacturing of a drug or biological product (collectively, "**CMC Development Activities**");

(c) regulatory activities relating to Clinical Studies and CMC Development Activities, including the preparation and submission of IND/CTAs;

(d) regulatory activities in support of obtaining and maintaining Marketing Approval, including the preparation and submission of Drug Approval Applications, regulatory affairs, project management, drug safety surveillance and REMS programs as required by the FDA or other Regulatory Authorities;

(e) Early Access Programs; and

(f) pharmacovigilance activities with respect to a drug or biological product, including establishing, updating and maintaining of a global safety database.

Notwithstanding the foregoing, Development excludes any Research activities.

1.22 "**Diligent Efforts**" means [***].

1.23 "**Drug Approval Application**" means: (a) a new drug application submitted to the FDA pursuant to Section 505(b) of the FFDCA, 21 U.S.C. § 355(b), and all amendments and supplements thereto; or (b) an application for authorization to market and/or sell a drug product submitted to a Regulatory Authority in any country or jurisdiction other than the U.S., and amendments and supplements thereto, including, with respect to the European Union, a marketing authorization application filed with the EMA pursuant to the Centralized Approval Procedure or with the applicable Regulatory Authority of a country in the European Economic Area with respect to the decentralized procedure, mutual recognition or any national approval procedure.

1.24 "**Early Access Program**" or "**EAP**" means any program to provide patients in a country with a Licensed Product before receipt of Marketing Approval and before First Commercial Sale in such country in which the use of the Licensed Product is not primarily intended to obtain information about the safety or effectiveness of such Licensed Product, including Treatment INDs / Protocols, Named Patient Programs and Compassionate Use programs. For clarity, an EAP with respect to a Licensed Product may continue to be performed after receipt of Marketing Approval of such Licensed Product and costs may continue to be incurred in accordance with the performance of such EAP after Marketing Approval.

1.25 "**Effective Date**" means the first Business Day immediately following the HSR Clearance Date.

1.26 "**EMA**" means the European Medicines Agency or any successor agency thereto.

1.27 "**European Union**" or "**EU**" means: (a) the countries of the European Economic Area, as it is constituted on the Execution Date and as it may be modified from time to time after the Execution Date; and (b) the United Kingdom.

1.28 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

1.29 "**Existing In-Licenses**" means any agreements pursuant to which Licensor Controls any of the Licensed Technology as of the Execution Date, including the agreements set forth on Schedule 1.29.

1.30 "**Existing Licensed Patent**" means any Licensed Patent that exists as of the Execution Date.

1.31 "**Exploit**" or "**Exploitation**" means to make, use, offer to sell, sell, import, export, Research, Develop, Manufacture, Commercialize and otherwise practice or exploit, including to have an Affiliate or Third Party conduct any of the foregoing activities.

1.32 "**FDA**" means the United States Food and Drug Administration or any successor agency thereto.

1.33 "**Field**" means all diagnostic, prophylactic and therapeutic uses.

1.34 "**First Commercial Sale**" means, with respect to a given Licensed Product in a country, the first commercial sale in an arms-length transaction of such Licensed Product to a Third Party by or on behalf of Janssen, its Affiliate or sublicensee in such country following receipt of applicable Marketing Approval of such Licensed Product in the Field in such country; provided, however, that "First Commercial Sale" will not include any transfer of a Licensed Product (i) between or among Janssen and its Affiliates or sublicensees, (ii) for purposes of patient assistance programs, treatment IND sales, named patient sales, compassionate use sales or the like or (iii) for use in any Clinical Study.

1.35 "**Future In-License**" means any in-license entered into by Licensor or its Affiliates after the Execution Date pursuant to which Licensor Controls any Licensed Technology.

1.36 "**GAAP**" means generally accepted accounting principles in the United States, consistently applied. Unless otherwise defined or stated, financial terms will be calculated by the accrual method under GAAP.

1.37 "**Generic Product**" means, with respect to a Licensed Product and a country, any product sold by a Third Party approved in such country by way of an abbreviated regulatory mechanism by the Regulatory Authority in such country that meets the equivalency determination by the applicable Regulatory Authority (including a determination that the product is "comparable", "interchangeable", "bioequivalent" or other term of similar meaning, with respect to such Licensed Product), in each case, as is necessary to permit substitution of one product for another product under applicable Law.

1.38 "**Good Clinical Practice**" or "**GCP**" means the current standards for clinical trials for pharmaceuticals, as set forth in the applicable regulations and ICH guidance, including ICH E6, as amended from time to time, and such standards of good clinical practice as are required by the European Union and other organizations and governmental agencies in countries in which a Licensed Product is intended to be tested to the extent such standards are not less stringent than United States Good Clinical Practice.

1.39 "**Good Laboratory Practice**" or "**GLP**" means the current standards for laboratory activities for pharmaceuticals, as set forth in the FDA's Good Laboratory Practice regulations at 21 C.F.R. Part 58 or the Good Laboratory Practice principles of the Organization for Economic Co-Operation and Development, as amended from time to time, and such standards of good laboratory practice as are required by the European Union and other organizations and governmental agencies in countries in which a Licensed Product is intended to be sold, to the extent such standards are not less stringent than United States Good Laboratory Practice.

1.40 "**Good Manufacturing Practice**" or "**GMP**" means the part of quality assurance which ensures that products are consistently produced and controlled in accordance with the quality standards appropriate to their intended use as defined in 21 C.F.R. Parts 210 and 211, European Directive 2003/94/EC, Eudralex 4, Annex 16, and applicable United States, European Union, Canadian and ICH Guidance and/or regulatory requirements for a product.

1.41 "**Government Health Care Programs**" means the Medicare program (Title XVIII of the Social Security Act), the Medicaid program (Title XIX of the Social Security Act), TRICARE, the Federal Employee Health Benefits Program, and other foreign, federal, state and local governmental health care plans and programs.

1.42 "**Governmental Authority**" means any national, federal, state or local government, or political subdivision thereof, or any multinational organization or authority or any authority, agency or commission entitled to exercise any administrative, executive, judicial, legislative, police, regulatory or taxing authority or power, any court or tribunal (or any department, bureau or division thereof), or any governmental arbitrator or arbitral body.

1.43 "**GxP**" means any or all of GCP, GLP or GMP, as applicable.

1.44 "**Hatch-Waxman Act**" means the Drug Price Competition and Patent Term Restoration Act (21 U.S.C. §355), as amended.

1.45 "**HSR Act**" means the Hart-Scott-Rodino Antitrust Improvements Act of 1976, as amended, and the rules and regulations promulgated thereunder.

1.46 "**IND/CTA**" means an Investigational New Drug Application filed with FDA or a similar application filed with an applicable Regulatory Authority outside of the United States, such as a clinical trial application or a clinical trial notification, or any other equivalent or related regulatory submission, license or authorization.

1.47 "**Indication**" means the diagnosis, treatment or prevention of a discrete clinically recognized form of a disease. For example, [***] are different Indications. For the avoidance of doubt, [***] do not constitute separate "Indications" for purposes of this Agreement.

1.48 "**Information**" means all technical, scientific and other know-how and information, trade secrets, knowledge, technology, means, methods, processes, practices, formulas, instructions, skills, techniques, procedures, ideas, algorithms, specifications, data, results, discoveries, developments and inventions (whether or not proprietary and whether or not patented or patentable), including Know-How.

1.49 "**In-License**" means each Existing In-License and each Future In-License, if any.

1.50 "**Independently Known Know-How**" means, with respect to an Acquirer or its applicable Affiliate (other than a Licensor Pre-Existing Organization), Know-How that such Acquirer or applicable Affiliate can show by competent written evidence was created by or disclosed to such Acquirer or applicable Acquirer Affiliate from a source other than a Licensor Pre-Existing Organization before disclosure of such Know-How by any Licensor Pre-Existing Organization to such Acquirer or applicable Acquirer Affiliate.

1.51 "**Invention**" means any invention, discovery or development, whether or not patentable, conceived or first reduced to practice under this Agreement, whether conceived or first reduced to practice solely by or on behalf of either Party or any of its respective Affiliates, or jointly by or on behalf of both Parties or any of their Affiliates.

1.52 "**Know-How**" means all technical, scientific and other know-how and information, trade secrets, knowledge, technology, means, methods, processes, practices, formulas, instructions, skills, techniques, procedures, ideas, algorithms, specifications, data, results, discoveries, developments and inventions (whether or not patented or patentable), in each case, that is not generally known or available to the public.

1.53 "**Law**" means any federal, state, local, foreign or multinational law, statute, standard, ordinance, code, rule, regulation, resolution or promulgation, or any order by any court, regulatory agency or other Governmental Authority, or any license, franchise, permit or similar right granted under any of the foregoing, or any similar provision having the force or effect of law.

1.54 "**Lead Product**" means a Licensed Product that contains PIPE-307 as its sole active ingredient.

1.55 "**Liabilities**" means any and all damages, debts, liabilities, obligations, Losses, claims, Taxes, interest obligations, deficiencies, judgments, assessments, awards, fines, fees, penalties, costs and expenses, whether accrued or fixed, absolute or contingent, known or unknown, matured or unmatured or determined or determinable, due or to become due, whether directly incurred or consequential, whether or not required under GAAP to be accrued on the financial statements of a Person, and including those arising under any Law, Action or Order and those arising under any contract, agreement, arrangement, commitment or undertaking.

1.56 "**Licensed Compound**" means any small molecule that: (a) is the compound referred to as "PIPE-307" as of the Execution Date, as described on Exhibit 1.56(a) ("**PIPE-307**"); (b) was first demonstrated by or on behalf of Licensor to be a M1 mAChR Antagonist prior to the Execution Date, [***]; (c) is first demonstrated by or on behalf of Licensor to be a [***]; (d) is claimed as a [***]; or (e) [***].

1.57 "**Licensed Know-How**" means all Know-How (including Inventions) Controlled by Licensor or its Affiliates as of the Execution Date or at any time during the Term [***].

1.58 "**Licensed Patents**" means all Patents Controlled by Licensor or its Affiliates as of the Execution Date or at any time during the Term that claim or Cover (a) any Licensed Compound or Licensed Product, (b) the Manufacture of any Licensed Compound or Licensed Product, or (c) the Exploitation in the Field of any Licensed Compound or Licensed Product, [***].

1.59 "**Licensed Product**" means any pharmaceutical product in any form containing one or more Licensed Compound(s) as an active ingredient (in any dosage form, formulation or method of delivery, including Combination Products).

1.60 "**Licensed Technology**" means, collectively, the Licensed Know-How and Licensed Patents.

1.61 "**Licensor Pre-Existing Organization**" means, with respect to an Acquirer, Licensor and Licensor's Affiliates immediately prior to consummation of a Change of Control involving such Acquirer.

1.62 "**Major European Countries**" means France, Germany, Italy, Spain and the United Kingdom.

1.63 "**Manufacturing**" or "**Manufacture**" means activities directed to producing, manufacturing, processing, filling, finishing, packaging, labeling, quality assurance testing and release, shipping and storage of a drug or biological product.

1.64 "**Marketing Approval**" means approval of a Drug Approval Application by the applicable Regulatory Authority.

1.65 "**M1 mAChR**" means the M1 muscarinic acetylcholine receptor.

1.66 "**M1 mAChR Antagonist**" means any small molecule that binds to and antagonizes M1 mAChR [***].

1.67 "**Net Sales**" means, with respect to a Licensed Product, the gross amounts invoiced on sales of such Licensed Product by Janssen or its Affiliates or sublicensees to a Third Party purchaser (and distributors of Janssen selling Licensed Product will not, for this purpose, be deemed to be sublicensees of Janssen and will instead be considered as independent Third Party purchasers) in an arm's length transaction, less the following customary deductions, to the extent that they are in accordance with GAAP and standard internal policies and procedures consistently applied throughout the Party recording such sales to calculate revenue for financial reporting purposes, including deductions actually taken, paid, accrued, allocated or allowed based on good faith estimates, with respect to such sales (and consistently applied as set forth below):

normal and customary trade, cash and/or quantity discounts, allowances, wholesaler and pharmacy fees, and credits allowed or paid, in the form of deductions actually allowed or actually paid with respect to sales of such Licensed Product (to the extent not already reflected in the amount invoiced) excluding commissions for commercialization;

excise taxes, use taxes, tariffs, sales taxes and customs duties, and/or other government charges imposed on the sale of such Licensed Product (including VAT, but only to the extent that such VAT taxes are not reimbursable or refundable), but specifically excluding, for clarity, any income taxes assessed against the income arising from such sale;

outbound freight, shipment and insurance costs to the extent included in the gross amount invoiced and separately itemized on the invoice;

compulsory or negotiated payments, and cash rebates to the extent the same are paid to a Governmental Authority (or agent thereof) pursuant to governmental regulations by reason of any national or local health insurance program or similar program that relate specifically to the Licensed Product, including but not limited to pay-for-performance agreements or risk sharing agreements in relation to such Licensed Product, and government levied fees as a result of the PPACA (or any subsequent amendments);

retroactive price reductions, credits or allowances for claims, rejections or returns of such Licensed Product, including for recalls or damaged or expired goods, billing errors and reserves for returns;

rebates, charge backs, administrative fees, allowances and discounts (or equivalent thereof) actually granted to managed health care organizations, group purchasing organizations, insurers, pharmacy benefit managers (or equivalent thereof), specialty Pharmacy providers, federal, state/provincial, local or other governments, or their agencies or purchasers, reimbursers, or trade customers, in each case, with respect to Licensed Products;

actual bad debt write-off attributable directly to the sale of such Licensed Product, any reserve or financial discount created for uncollectable amounts in countries with sovereign risk, and for customers whose DSO exceeds [***] days; and

coupons, or discount/rebates associated with co-pay cards, in each case, specific to Licensed Products.

All aforementioned deductions will only be allowable to the extent they are commercially reasonable, and will be determined, on a country-by-country basis, as incurred in the ordinary course of business in type and amount consistent with Janssen's or its Affiliate's or sublicensee's (as the case may be) business practices consistently applied across its product lines and accounting standards and verifiable. All such discounts, allowances, credits, rebates and other deductions will be fairly and equitably allocated to Licensed Product and other products of Janssen and its Affiliates and sublicensees such that Licensed Product does not bear a disproportionate portion of such deductions.

Sales of a Licensed Product by and between Janssen and its Affiliates and sublicensees, or between the Parties (or their respective Affiliates, licensees or sublicensees) are not sales to Third Parties and will be excluded from Net Sales calculations; provided, however, that if such Licensed Product is subsequently resold to a Third-Party end user such resale shall be included in the determination of Net Sales.

Sales of Licensed Product for the use in conducting Clinical Studies or other scientific testing of Licensed Product in a country will be excluded from Net Sales calculations.

Any disposition of the Licensed Product as free samples, donations, patient assistance, test marketing programs or other similar programs or studies will be excluded from Net Sales calculations.

Compassionate use and "named patient sales" (Early Access Programs) will be excluded from Net Sales calculations.

If a Licensed Product is sold as part of a Combination Product in a country, the Parties will negotiate in good faith, at the latest [***] months before the expected launch of such Combination Product, an allocation of Net Sales of such Combination Product to its components (i.e., the Licensed Compound or Licensed Product and each of the Other Components), as the case may be, based on the fair market value of such components for the purposes of determining a Licensed Product specific or licensed API specific allocated Net Sales. Payments related to such Combination Product under this Agreement, including royalty payments, will be calculated, due and payable based only on such allocated Net Sales.

Without limiting the foregoing and following negotiation, the Parties anticipate that allocated Net Sales will be calculated according to one of the following paradigms with paradigm (i) being more preferable and paradigm (iii) being used only if the information needed to use paradigm (i) or paradigm (ii) is not available:

Net Sales with respect to Combination Products for the determination of royalties and Sales Milestone Payments will be calculated by multiplying Net Sales of such Combination Product by the fraction A/(A+B) where A is the average net selling price of the Licensed Product component contained in the Combination Product, if sold separately or subject to reasonable estimation, and B is the sum of the average net selling prices of the API components included in the Combination Product, if sold separately or, if not sold separately, subject to reasonable estimation;

Net Sales with respect to Combination Products for the determination of royalties and Sales Milestone Payments will be calculated by multiplying Net Sales of such Combination Product by the fraction A/C where A is the average net selling price of the Licensed Product component in the Combination Product, if sold separately or, if not sold separately, subject to reasonable estimation, and C is the average net selling price of the entire Combination Product; or

Net Sales with respect to Combination Products for the determination of royalties and Sales Milestone Payments will be calculated by multiplying Net Sales of such Combination Product by the fraction 1/n where n is the total number of product components (i.e., Licensed Compound or Licensed Product component and Other Component(s)) included in the Combination Product.

If the Parties are unable to reach agreement regarding such allocated Net Sales prior to launch of any Combination Product, the calculation of such Licensed Product specific or licensed API specific allocated Net Sales for such Combination Product shall be determined by Janssen in its reasonable discretion based on one of the paradigms set forth in clauses (i) through (ii) above (or, only if the information needed to use paradigm (i) or paradigm (ii) is not available, based on the paradigm set forth in clause (iii)). Where the foregoing refers to "subject to reasonable estimation" such estimation shall be made by the selling Party and promptly provided to the other Party. If the other Party disagrees with such estimation or, if Janssen used paradigm (iii), on the appropriateness of which paradigm was used, it shall notify the other Party ("**Component Allocation Notice**") and authorized representatives of each Party shall convene to reasonably determine the proper allocation between the applicable components. If the Parties do not agree on such allocation within [***] days of the Component Allocation Notice, then the non-selling Party may refer the matter for resolution by a so-called [***] arbitration proceeding, which will be conducted in accordance with the procedures set forth in Schedule 1.67. For clarity, the selling Party may launch such Combination Product and use its reasonable estimation of the average net selling price of each component while such matter is being discussed and until it is resolved in accordance with this Section or Schedule 1.67.

1.68 "**Order**" means any writ, judgment, injunction, order, decree, stipulation, ruling, decision, verdict, determination or award, of or by, or any settlement under the jurisdiction of, any Governmental Authority (in each such case whether preliminary or final).

1.69 "**Original In-License Terms**" means the terms of (i) each Existing In-License, as such agreement exists as of the Execution Date, and (ii) each Future In-License, if any, as such agreement exists as of the date that the applicable Licensed Technology first comes into the Control of Licensor.

1.70 "**Patents**" means: (a) all original (priority establishing) patent applications claiming one or more inventions filed anywhere in the world, including provisionals and nonprovisionals; and (b) any patent or patent application that claims, or is entitled to claim, direct or indirect priority to the patent applications described in clause (a), including any continuations, continuations-in-part, divisions, or substitute applications, any patents issued or granted from any such patent applications, and any reissues, reexaminations, renewals or extensions (including by virtue of any supplementary protection certificates) of any such patents, and any confirmation patents or registration patents or patents of addition based on any such patents, and all foreign counterparts or equivalents of any of the foregoing.

1.71 "**Person**" means any individual, firm, corporation, partnership, limited liability company, trust, business trust, joint venture, governmental authority, association or other entity.

1.72 "**Phase 1 Study**" means a Clinical Study of a Licensed Product as a monotherapy or in combination with one or more other products, the principal purpose of which is a preliminary determination of safety in healthy individuals or patients, as more fully defined in 21 C.F.R. § 312.21(a), or its successor regulation, or the equivalent in any foreign country.

1.73 "**Phase 2 Study**" means a Clinical Study of a Licensed Product as a monotherapy or in combination with one or more other products: (a) with the primary endpoint of evaluating its effectiveness for a particular Indication or Indications, its short term tolerance and safety, but is not intended to be pivotal to support Marketing Approval for such Licensed Product; or (b) that meets the definition in 21 C.F.R. §312.21(b) or any of its foreign equivalents.

1.74 "**Phase 3 Study**" means a Clinical Study of a Licensed Product as a monotherapy or in combination with one or more other products: (a) on a sufficient number of patients, which trial (i) is designed to establish that such Licensed Product is safe and efficacious for its intended use and (ii) is pivotal to support Marketing Approval for such Licensed Product; or (b) that meets the definition in 21 C.F.R. §312.21(c) or any of its foreign equivalents.

1.75 "**PPACA**" means the U.S. Patient Protection and Affordable Care Act.

1.76 "**Prior Provider**" has the meaning set forth on Schedule 1.76.

1.77 "**Prosecution**" or to "**Prosecute**" means, with respect to a Patent, the preparation, filing, prosecution and maintenance of such Patent, including re-examinations and reissues of such Patent, together with the conduct of any interferences, derivation proceedings, the defense of oppositions, post-grant proceedings (e.g., inter partes review and post-grant review) and other similar proceedings with respect to such Patent. "Prosecution" of a Patent in Europe includes the right to opt in or opt out of the Europe Unitary Patent System for such Patent (including both the right to have or have not a European patent application or an issued European patent registered to have unitary effect within the meaning of Regulation (EU) No 1257/2012 of December 17, 2012 and the Agreement on a Unified Patent Court as of February 19, 2013, and the right to opt in or opt out of the exclusive competence of the Unified Patent Court in accordance with Article 83(3) of such Agreement on a Unified Patent Court). "Prosecution" of a Patent does not include any enforcement actions taken with respect to such Patent.

1.78 "**Regulatory Authority**" means any federal, national, multinational, state, provincial or local regulatory agency, department, bureau or other governmental entity with authority over the marketing and sale of pharmaceutical products in a country, including FDA in the U.S. and EMA in the EU. "Regulatory Authority" also includes any non-governmental group licensed by an entity described in the preceding sentence to perform inspections, audits and/or reviews.

1.79 "**Regulatory Documentation**" means (a) all INDs/CTAs and Drug Approval Applications; (b) all supporting documents created for, referenced in, submitted to or received from an applicable Regulatory Authority relating to any IND/CTA or Drug Approval Application, including drug master files (or any equivalent outside the U.S.), annual reports, regulatory drug lists, advertising and promotion documents shared with Regulatory Authorities, adverse event files, complaint files and Manufacturing records; and (c) all correspondence made to, made with or received from any Regulatory Authority (including written and electronic mail correspondence and minutes from meetings, discussions or conferences (whether in person or by audio conference or videoconference)).

1.80 "**Regulatory Exclusivity**" means, with respect to a Licensed Product and a country, any data exclusivity or other right of exclusivity (other than patent exclusivity), granted or afforded by applicable Law or by a Regulatory Authority in such country, that confers exclusive marketing rights with respect to such Licensed Product in such country and prevents the initial market entry of a Generic Product with respect to such Licensed Product.

1.81 "**Research**" means scientific investigation and non-clinical activities to discover, identify, modify, characterize and optimize compounds.

1.82 "**Tax**" or "**Taxes**" means any present or future taxes, levies, imposts, duties, charges, assessments or fees of any nature (including any interest thereon).

1.83 "**Territory**" means worldwide.

1.84 "**Third Party**" means any Person other than a Party or any of its Affiliates.

1.85 "**Threshold Activity**" means [***] of equal to or less than [***] that is performed in accordance with the protocol set forth on Schedule 1.85 wherein such [***] value is determined in accordance with the normalized standards set forth in such protocol.

1.86 "**U.S.**" means the United States of America, including its territories and possessions.

1.87 "**Valid Claim**" means a claim of: (a) any issued, unexpired patent that has not been revoked or held unenforceable or invalid by a decision of a court or governmental agency of competent jurisdiction from which no appeal can be taken, or with respect to which an appeal is not taken within the time allowed for appeal, and that has not been disclaimed or admitted to be invalid or unenforceable through reissue, disclaimer or otherwise; or (b) any patent application that has not been cancelled, withdrawn or abandoned, without being re-filed in another application in the applicable jurisdiction or has not been pending or filed more than [***] from the earliest possible priority date for said application, provided that if such claim is later issued, it will from the issuance date forward, if meeting the requirements of clause (a) of this Section 1.87, be deemed to be a Valid Claim.

1.88 Additional Definitions. Each of the following definitions is set forth in the Section of this Agreement indicated below:

Defined Term	**Section**
Agreement	Preamble
Annual Co-Fund Cap	4.8.2(b)(ii)
Anti-Corruption Laws	8.6.1(a)
Applied Janssen Know-How	10.5.2(a)(i)
Applied Janssen Patents	10.5.2(a)(ii)
Applied Janssen Technology	10.5.2(a)(iii)
Bankruptcy Code	10.4.2
Beneficial Owner; Beneficial Ownership	1.9
Breach Notice	10.2.1
Breaching Party	10.2

Defined Term	Section
Business Combination	1.9(c)
Certificate	8.7.1(a)
Claim Basis	9.3.2
CMC Development Activities	1.21(b)
Co-Funding Option	4.8
Co-Funding Option Exercise Date	4.8.1(d)
COGS; Cost of Goods	4.8.2(a)(i)
Component Allocation Notice	1.67
Confidential Information	7.1.2
Cost Report	4.8.2(b)(i)
Cost Variances	4.8.2(a)(i)(2)
CPI	4.8.2(a)(ii)
CPR Mediation Procedure	12.3
Cure Period	10.2.2
Data Package	4.8.1(c)
Designated Representative	3.4.4(g)
Development Budget	4.8.2(d)(iii)
Development FTE	4.8.2(a)(iii)
Development FTE Costs	4.8.2(a)(iv)
Development FTE Rate	4.8.2(a)(v)
Disclosing Party	7.1.1
Dispute	12.1
DOJ	11.2
DSMB	3.4.4(g)
Execution Date	Preamble
Execution Date Terms	10.1
Executive Officers	12.2
Existing API Inventory	2.2.1(a)(i)
Existing API Inventory Requirements	2.2.1(b)(iii)
FTC	11.2

Defined Term	Section
Global Development Plan; GDP	4.8.2(d)(ii)
Health Care Laws	8.5.5(a)
HSR Clearance Date	11.1
HSR Conditions	11.1
HSR Forms	11.2
Incumbent Board	1.9(b)
Indemnification Claim	9.3.1
Indemnitee	9.3.2
Indemnitor	9.3.2
Infringement	6.4.1
Infringement Action	6.4.2(a)
Infringement Claim	6.8
Initial Manufacturing Activities	2.2.3(b)(ii)
Insolvency Event	10.4.1
Invalidity Claim	6.7.1
Janssen	Preamble
Janssen Indemnitees	9.2
JDC	4.8.2(c)
Joint Patent	6.2.2
Licensor	Preamble
Licensor Indemnitees	9.1
Losses	9.1
Milestone Event	4.2
Milestone Payment	4.2
Milled API Inventory	2.2.1(b)(ii)
Non-breaching Party	10.2
Ongoing Pre-Clinical Studies	2.1.3
Opt-Out Notice	4.8.3(a)
Opt-Out Notice Period	4.8.3(a)(iii)
Opt-Out Right	4.8.3(a)

Defined Term	Section
Other Component	1.11
Other Costs Not Included in Standard	4.8.2(a)(i)(3)
Out-of-Pocket Expenses	4.8.2(a)(vi)
Outstanding Common Stock	1.9(a)
Outstanding Voting Securities	1.9(a)
Paragraph IV Certification	6.4.4
Party; Parties	Preamble
Patent Representative	6.1
Phase 2 MS Completion Date	2.2.3(c)
Phase 2 MS POC Study	3.4
Phase 2 MS POC Study Notice	3.4.1
PIPE-307	1.56
Pre-Existing Affiliates	1.2
Product Marks	6.10
Public Official	8.6.4
Receiving Party	7.1.1
Regulatory Documentation and Filings	10.5.2(e)
Reversion Plan	10.5.2(m)
Reversion Royalty Rate	10.5.2(a)(v)
Reversion-Eligible Product	10.5.2(a)(iv)
Reverted Product	10.5.2(b)
Royalty Term	4.4.2
Royalty-Bearing Claim	4.4.2(b)
Sales Milestone Event	4.3
Sales Milestone Payment	4.3
Second Regulatory Authority Submission Request	3.4.4(f)(i)
Shared Development Costs	4.8.2(a)(vii)
Specified Additional Materials	8.7.1(b)
Specified Person	1.9(a)
Specified Phase 1 Materials	8.7.1(a)

Defined Term	Section
Standard Cost of Goods Manufactured	4.8.2(a)(i)(1)
Study Alliance Manager	3.4.5
Study Rejection Notice	3.4.2
Term	10.1
Termination Effective Date	10.5.1
Termination Notice Date	10.5.1(c)
Third Party License	4.4.3(b)(ii)
Trademark	13.14
Transactions	11.1
Transition Manager	2.3
Transition Plan	2.1.4
Trial Synopsis	3.4.1

ARTICLE 2
TRANSFER OF LICENSED COMPOUNDS AND LICENSED PRODUCTS

2.1 Transfer of Program to Janssen (Non-Manufacturing). Promptly after the Effective Date (and, in any event, in accordance with any timelines set forth in the Transition Plan), Licensor will transfer its program for the Licensed Compounds and Licensed Products to Janssen in accordance with this Section 2.1.

2.1.1 Regulatory Filings. Licensor will deliver to Janssen full and complete copies of all INDs/CTAs for the Licensed Products that are owned, controlled or otherwise held by Licensor or any of its Affiliates on the Execution Date, including those set forth on Schedule 2.1.1. Licensor and its Affiliates will continue to hold such INDs/CTAs until assignment thereof to Janssen pursuant to Section 3.4.6. After the Effective Date, except in accordance with Section 3.4.4(f), Licensor and its Affiliates will not submit any Regulatory Documentation in respect of such INDs/CTAs (or otherwise relating to any Licensed Compound or Licensed Product) to any Regulatory Authority without Janssen's prior written approval.

2.1.2 Know-How (Non-Manufacturing). Licensor will deliver to Janssen embodiments or copies of: (i) all Licensed Know-How existing on the Execution Date or generated prior to completion of the Transition Plan; and (ii) all other Information in the possession or control of Licensor or its Affiliates that (A) is used by or on behalf of Licensor in the Exploitation of the Licensed Compounds or Licensed Products and (B) exists on the Execution Date or is generated prior to completion of the Transition Plan, except that Licensed Know-How and Information relating to the Manufacture of the Licensed Compounds and Licensed Products will be transferred in accordance with Section 2.2.2. The embodiments or copies of Licensed Know-How and Information delivered to Janssen under this Section 2.1.2 will include:

(a) all clinical and non-clinical data related to the Licensed Compounds and Licensed Products (including the raw tables, figures and listings datasets), including from the toxicology study(ies) and Phase 1 Study(ies) of PIPE-307;

(b) all analyses and reports (including interim and final study reports) relating to any such data described in clause (a), including from the toxicology study(ies) and Phase 1 Study(ies) of PIPE-307;

(c) the global safety database for any Licensed Product; and

(d) all Regulatory Documentation relating to the Licensed Compounds and Licensed Products, including all Regulatory Documentation relating to the INDs/CTAs listed on Schedule 2.1.1.

2.1.3 Ongoing Activities. Licensor will, at Janssen's election, wind down, complete or transfer to Janssen any Development activity relating to the Licensed Compounds and Licensed Products that is ongoing on the Effective Date, except that (a) Licensor will have the right to complete the activities set forth in Schedule 2.1.3 (the "**Ongoing Pre-Clinical Studies**") and (b) Licensor will have the right to conduct the Phase 2 MS POC Study in accordance with Section 3.4. Promptly after completion of each Ongoing Pre-Clinical Study (and at any other time upon Janssen's request), Licensor will deliver to Janssen all clinical and non-clinical data related to the Licensed Compounds and Licensed Products (including the raw tables, figures and listings datasets) generated from such study and all analyses and reports (including interim and final study reports) relating to any such data.

2.1.4 Transition Plan.

(a) Promptly after the Effective Date, the Transition Managers and other representatives of the Parties will meet to prepare a plan for recording or perfecting the assignments, and completing the deliveries and other activities described in this Section 2.1 (the "**Transition Plan**"), with the objective of finalizing the plan no later than [***] days after the Effective Date.

(b) The Transition Plan will include a timeline for recording or perfecting the assignments, and completing the deliveries and other activities described in this Section 2.1. For any deliveries required under this Section 2.1, the Transition Plan will specify how the applicable items will be delivered by Licensor to Janssen (e.g., physical delivery, electronic transfer, grant of access to a data room or database from which the relevant items can be downloaded).

(c) The Parties will conduct the activities set forth in the Transition Plan and will use Diligent Efforts to conduct such activities in accordance with the timelines set forth in the Transition Plan.

2.2 Inventory and Manufacturing Transfer to Janssen. The Parties will conduct the inventory and Manufacturing transfer activities set forth in this Section 2.2 promptly after the Effective Date, unless otherwise expressly provided below.

2.2.1 Inventory.

(a) *Existing API Inventory*.

(i) Licensor hereby represents and warrants to Janssen that all of the types, forms (i.e., unmilled or milled) and quantities of Licensed Compound API (and the storage locations thereof) in the possession of Licensor or any of its Affiliates (or any Third Party on their behalf) as of the Execution Date are set forth on Schedule 2.2.1 (the "**Existing API Inventory**").

(ii) If any additional quantities of Licensed Compound API come into the possession of Licensor or any of its Affiliates (or any Third Party on their behalf) following the Execution Date and prior to the Effective Date, such additional quantities will be deemed Existing API Inventory.

(iii) Between the Execution Date and the Effective Date, Licensor will store all Existing API Inventory in accordance with all applicable Laws (including GMP) and the API specifications for the Licensed Compound API. On and after the Effective Date, (A) Licensor will continue to store all Existing API Inventory in accordance with all applicable Laws (including GMP) and the API specifications for the Licensed Compound API until it is transferred to Janssen in accordance with Section 2.2.1(b)(ii) and (B) Licensor will not use (or permit any Affiliate or Third Party to use) any of the Existing API Inventory.

(b) *Assignment and Transfer of Existing API Inventory*.

(i) As of the Effective Date, Licensor, on behalf of itself and its Affiliates, hereby assigns to Janssen all of Licensor's and its Affiliates' right, title and interest in, to and under the Existing API Inventory.

(ii) Licensor will deliver to Janssen or Janssen's designee, as soon as possible following the Effective Date (but no more than [***] days following the Effective Date), approximately [***] of the Existing API Inventory in milled form (the "**Milled API Inventory**"). Before delivering the Milled API Inventory to Janssen, Licensor will ensure that (a) all analytical testing necessary for the release of such Milled API Inventory for use in the Manufacture of Licensed Product drug product has been completed and (b) stability testing of such Milled API Inventory has been initiated. Licensor will deliver all other Existing API Inventory, in unmilled form, to Janssen or Janssen's designee as soon as possible following the Effective Date.

(iii) As of the Effective Date and the date of delivery to Janssen of the Existing API Inventory in accordance with Section 2.2.1(b)(ii), Licensor represents and warrants to Janssen that the Existing API Inventory: (a) meets the applicable specifications set forth in the applicable statement(s) of work between Licensor and the Designated Provider, as disclosed to Janssen prior to the Execution Date; (b) has been Manufactured, stored and handled in accordance with all applicable Laws and the specifications described in the foregoing clause (a); (c) has been Manufactured, stored and handled in accordance with applicable GxP; (d) has been Manufactured, stored and handled in a professional and workmanlike manner; and (e) is free and clear of all liens and encumbrances (the "**Existing API Inventory Requirements**"). Janssen's sole and exclusive remedy and Licensor's sole and exclusive liability for Licensor's breach of any

of the foregoing of this Section 2.2.1(b)(iii) with respect to any Existing API Inventory shall be that Licensor shall use Diligent Efforts to cause the Designated Provider to replace such Existing API Inventory with Licensed Compound that conforms to the Existing API Inventory Requirements at Licensor's cost. In addition, with respect to the Milled API Inventory, as of the date of delivery to Janssen of the Milled API Inventory in accordance with Section 2.2.1(b)(ii), Licensor represents and warrants to Janssen that: (i) the Designated Provider has (x) completed all analytical testing necessary for the release of the Milled API Inventory for use in the Manufacture of Licensed Product drug product and (y) initiated the stability testing of the Milled API Inventory; and (ii) the milling of the Milled API Inventory and the testing of the Milled API Inventory as described in the foregoing clause (i) has been conducted solely by the Designated Provider.

(iv) Licensor will be solely responsible for all costs and expenses relating to: (a) the milling (and related analytical testing and stability testing) of the Milled API Inventory; (b) the storage and handling of the Existing API Inventory prior to delivery thereof to Janssen or Janssen's designee; and (c) the delivery of the Existing API Inventory EXW (Incoterms 2020) the manufacturing facility to Janssen or Janssen's designee in accordance with Section 2.2.1(b)(ii); provided, however, that, following the delivery of the Milled API Inventory to Janssen after the Effective Date pursuant to Section 2.2.1(b)(ii), Janssen will reimburse Licensor for [***]% of Licensor's Cost of Goods (defined as set forth in Section 4.8.2(a)(i) but replacing "Janssen" with "Licensor" where applicable) for such Milled API Inventory. Licensor will deliver to Janssen a reasonably detailed invoice for Janssen's share of such costs, including a copy of the applicable invoice from the Designated Provider, and Janssen will pay to Licensor its share of such costs as set forth in this Section 2.2.1(b)(iv) within [***] days of the receipt of such invoice by Janssen.

(c) *Existing Drug Product Inventory*. Licensor hereby represents and warrants to Janssen that Licensor does not have any inventory of Licensed Product drug product in its possession or control as of the Execution Date, except for the Specified Additional Materials. Licensor will treat the Specified Additional Materials as set forth in Section 8.7.

2.2.2 Manufacturing Technology Transfer Following the Effective Date. At any time upon Janssen's request following the Effective Date, to the extent necessary to enable Janssen (or its designee(s)) to Manufacture the Licensed Compounds and Licensed Products at the facility(ies) designated by Janssen, Licensor will, and will cause its Affiliates and Third Party manufacturers to:

(a) deliver to Janssen (or its designee) embodiments or copies of all Licensed Know-How or other Information used in or otherwise necessary or reasonably useful for the Manufacture of the Licensed Compounds and Licensed Products, including all materials (such as critical reagents and reference standards), documents, data and information used in or necessary to Manufacture the Licensed Compounds and Licensed Products and supportive Regulatory Documentation;

(b) make available to Janssen (or its designee) the personnel of Licensor (or its Affiliate or Third Party manufacturer) involved in the Manufacture of Licensed Compounds and Licensed Products to provide technical assistance and training to the personnel of Janssen (or its designee) in order to enable Janssen to Manufacture the Licensed Compounds and Licensed Products at the facility(ies) designated by Janssen;

(c) at Janssen's reasonable request, assist Janssen (or its designee) in obtaining any necessary license, permit or approval from any Governmental Authority to Manufacture the Licensed Compounds and Licensed Products at the facility(ies) designated by Janssen;

(d) at Janssen's reasonable request, assist Janssen (or its designee) in establishing or procuring arrangements with Third Party manufacturer(s) for obtaining supplies of Licensed Compounds or Licensed Products (or any intermediate or component thereof), including, as applicable, facilitating Janssen's execution of direct agreement(s) with Licensor's Third Party manufacturers and instructing such Third Party manufacturers to make available for use on Janssen's behalf under such direct agreement(s) the Manufacturing processes for the Licensed Compounds and Licensed Products; and

(e) provide any other assistance reasonably requested by Janssen to enable Janssen (or its designee) to Manufacture the Licensed Compounds and Licensed Products at the facility(ies) designated by Janssen.

Notwithstanding the foregoing, where this Section 2.2.2 requires that Licensor cause a Third Party manufacturer to take an action, this Section 2.2.2 will not be deemed to require Licensor to make any payment to a Third Party not otherwise payable under Licensor's agreement(s) with such Third Party, unless Janssen agrees to make such payment (or reimburse Licensor for such payment).

2.2.3 Manufacture of Licensed Compound and Licensed Products Following the Effective Date.

(a) *Interim API Supply*. At any time prior to the completion of the Manufacturing technology transfer described in Section 2.2.2 with respect to the Manufacturing process for the Licensed Compound API, Janssen may request Licensor to supply Janssen with additional Licensed Compound API. If Janssen makes such a request, Licensor will supply Janssen with Janssen's requirements of Licensed Compound API. Any such Licensed Compound API will be Manufactured solely by the Designated Provider. Janssen will reimburse Licensor for Licensor's Cost of Goods for such Licensed Compound API (defined as set forth in Section 4.8.2(a)(i) but replacing "Janssen" with "Licensor" where applicable). If requested by Janssen, the Parties will enter into a clinical supply agreement and related quality agreement with respect to such clinical supplies.

(b) *Manufacture of Licensed Product Drug Product by Janssen; Supply to Licensor for Phase 2 MS POC Study*.

(i) *Janssen's Sole Right to Manufacture*. After the Effective Date for the duration of the Term, except for Licensor's performance (prior to completion of the Manufacturing technology transfer described in Section 2.2.2) of the activities described in Section 2.2.1, Section 2.2.2 and Section 2.2.3(a), as applicable, Janssen will have the sole and exclusive right to Manufacture and have Manufactured the Licensed Compounds and Licensed Products, in its sole discretion, in accordance with Section 3.1 and Section 5.1.1.

(ii) *Janssen's Initial Manufacturing Activities*. Following the delivery of the Milled API Inventory to Janssen after the Effective Date pursuant to Section 2.2.1(b)(ii) and the completion of the Manufacturing technology transfer described in Section 2.2.2 with respect to the Manufacturing process for the Licensed Product drug product, Janssen will use Diligent Efforts to Manufacture or have Manufactured Licensed Product drug product and placebo tablets in at least the quantities set forth on Schedule 2.2.3(b)(ii) (the "**Initial Manufacturing Activities**"). Janssen will notify Licensor following completion of the Initial Manufacturing Activities.

(iii) *Cost Sharing for Initial Manufacturing Activities*. Licensor will reimburse Janssen for [***]% of Janssen's Cost of Goods for the Initial Manufacturing Activities with respect to the quantities set forth on Schedule 2.2.3(b)(ii). Janssen will deliver to Licensor an invoice for Licensor's share of such costs, and Licensor will pay to Janssen its share of such costs as set forth in this Section 2.2.3(b)(iii) within [***] days of the receipt of such invoice by Licensor.

(iv) *Initial Phase 2 MS POC Study Supply*. If Licensor has elected to conduct the Phase 2 MS POC Study in accordance with Section 3.4.1(a) and has the right to commence such study under Section 3.4.4, then, Licensor may request Janssen to supply Licensor with Licensed Product drug product and placebo tablets up to the quantities set forth on Schedule 2.2.3(b)(iv). If Licensor makes such a request, Janssen will use Diligent Efforts to deliver EXW (Incoterms 2020) the manufacturing facility, to Licensor or Licensor's designee, Licensed Product drug product and placebo tablets in the quantities set forth on Schedule 2.2.3(b)(iv), or such lesser quantities as may be set forth in such written request, promptly following the Manufacture thereof (or, if later, promptly following Licensor's request under this Section 2.2.3(b)(iv)). Licensor may elect to have Janssen or a Third Party perform the packaging of such Licensed Product and placebo tablets. If Licensor elects to have Janssen perform such packaging activities, Licensor will pay to Janssen Janssen's Cost of Goods for such activities within [***] days of the receipt of an invoice therefor by Licensor.

(v) *Additional Supply for Phase 2 MS POC Study*. If, following such initial delivery of Licensed Product drug product and placebo tablets, Licensor requires additional Licensed Product drug product or placebo tablets for use in the Phase 2 MS POC Study, then Licensor will purchase such supplies from Janssen at Janssen's Cost of Goods for such supply. If requested by Janssen, the Parties will enter into a clinical supply agreement and related quality agreement with respect to such clinical supplies. In the case of any supply shortage with respect to the Licensed Compound or Licensed Products, available supply thereof will first be allocated to Janssen's planned and ongoing Clinical Studies and then to the Phase 2 MS POC Study.

(c) *Transfer of Remaining Inventory to Janssen*. Promptly after the Phase 2 MS Completion Date, Licensor will deliver to Janssen all unused quantities of Licensed Compound API, Licensed Products or placebo tablets in Licensor's possession or control. "**Phase 2 MS Completion Date**" means the earliest date, on or after the Effective Date, on which one of the following events occurs: (i) Licensor's failure to deliver an Phase 2 MS POC Study Notice within the applicable period set forth in Section 3.4.1(a); (ii) Licensor's notice to Janssen of its decision not to conduct the Phase 2 MS POC Study in accordance with Section 3.4.1(c); (iii) Licensor's failure to commence the Phase 2 MS POC Study on or before the date set forth in

Section 3.4.4(a); or (iv) the completion or earlier termination of the Phase 2 MS POC Study. Effective as of the Phase 2 MS Completion Date, Licensor, on behalf of itself and its Affiliates, hereby assigns to Janssen all of Licensor's and its Affiliates' right, title and interest in, to and under such quantities of Licensed Compound API, Licensed Products and placebo tablets.

2.3 Transition Manager. Each Party will appoint one of its employees to have primary responsibility and oversight for, and to serve as the primary point of contact regarding, the transition activities contemplated by this ARTICLE 2 and the Transition Plan (each, the "**Transition Manager**"). When making a request of the other Party in connection with the Transition Plan or Manufacturing transfer activities, each Party shall only contact the Transition Manager of the other Party unless otherwise directed by the Transition Manager of the other Party.

2.4 Costs. Except as expressly set forth above in this ARTICLE 2, each Party will bear its own costs of performing its obligations under this ARTICLE 2 and the Transition Plan.

2.5 Licensor Efforts.

2.5.1 Licensor will (and will cause its Affiliates to) take any actions, and execute any instruments, assignments and documents, as reasonably requested by Janssen to effect the provisions of this ARTICLE 2.

2.5.2 If the consent or action of a Third Party is reasonably necessary to effect the provisions of this ARTICLE 2, Licensor will (and will cause its Affiliates to) use Diligent Efforts to obtain the consent of the Third Party or cause the Third Party to take action in accordance with the timelines set forth in the Transition Plan.

2.5.3 If there is a delay in completion of an activity in the Transition Plan due to a Third Party or applicable Law, during the pendency of such delay, Licensor will use Diligent Efforts to provide Janssen with the same or substantially comparable benefits as if the activity had been completed.

2.6 No Assumption of Liabilities. Janssen expressly does not assume and will not become liable to pay, perform or discharge, any Liabilities whatsoever of Licensor or any of its Affiliates of whatever nature, whether presently in existence or arising or asserted hereafter, in connection with the transfer to Janssen of Licensor's program for the Licensed Compounds and Licensed Products under this ARTICLE 2.

ARTICLE 3
EXPLOITATION OF LICENSED COMPOUNDS AND LICENSED PRODUCTS

3.1 General. Janssen will have the sole and exclusive right to Research, Develop (including conducting all regulatory matters with respect to), Manufacture, Commercialize and otherwise Exploit the Licensed Compounds and Licensed Products in the Field in the Territory, except that (a) Licensor will conduct the activities allocated to Licensor under ARTICLE 2 and the Transition Plan in accordance with ARTICLE 2, (b) Licensor will conduct the activities set forth in Section 3.2, and (c) Licensor will have the right to complete the Ongoing Pre-Clinical Studies in accordance with Section 2.1.3 and to conduct the Phase 2 MS POC Study in accordance with Section 3.4. Without limiting Licensor's right to conduct the Phase 2 MS POC Study in accordance with Section 3.4, Janssen will have sole decision-making authority over all matters relating to the Exploitation of the Licensed Compounds and Licensed Products in the Field in the Territory.

3.2 Licensor Assistance. Upon Janssen's reasonable request during the Term, Licensor will respond to questions and requests from Janssen for additional information relating to the Licensed Compounds and Licensed Products and will provide Janssen with reasonable access by teleconference, in-person or e-mail to any personnel of Licensor or any of its Affiliates that was involved in the Exploitation of Licensed Compounds and Licensed Products.

3.3 Diligence.

3.3.1 Development Diligence. Janssen will use Commercially Reasonable Efforts to [***].

3.3.2 Commercialization Diligence. Following receipt of Commercialization Approval of [***], Janssen will use Commercially Reasonable Efforts to Commercialize [***].

3.4 Licensor Right to Conduct Phase 2 MS POC Study. Licensor will have the right, but no obligation, to conduct a Phase 2 Study to identify a safe and efficacious dose of the Lead Product for multiple sclerosis (a "**Phase 2 MS POC Study**") in accordance with this Section 3.4.

3.4.1 Licensor Election.

(a) If Licensor elects to conduct a Phase 2 MS POC Study, Licensor will notify Janssen in writing of such election within the later of: (i) [***] days following the Effective Date; and (ii) [***] days following the date that Janssen notifies Licensor pursuant to Section 2.2.3(b)(i) that the Initial Manufacturing Activities are complete (a "**Phase 2 MS POC Study Notice**"). As part of such Phase 2 MS POC Study Notice, Licensor will provide to Janssen, for Janssen's review and comment, the proposed trial design, endpoints and protocol for the Phase 2 MS POC Study, which must be consistent with the trial synopsis attached to this Agreement as Exhibit 3.4 (the "**Trial Synopsis**"). If, at any time, Licensor desires to amend the Trial Synopsis, it will provide the proposed amendment to Janssen and the Parties will promptly meet and discuss in good faith such proposed amendment, but neither Party is required to agree to such amendment.

(b) If Licensor does not deliver a Phase 2 MS POC Study Notice to Janssen in accordance with this Section 3.4.1, then Licensor's right to conduct a Phase 2 MS POC Study will immediately and permanently expire and this Section 3.4 will be of no further force or effect.

(c) In addition, if Licensor determines not to conduct the Phase 2 MS POC Study, Licensor will promptly notify Janssen of such decision. Effective as of the date of such notice, Licensor's right to conduct a Phase 2 MS POC Study will immediately and permanently expire and this Section 3.4 will be of no further force or effect.

3.4.2 Janssen Right to Object. At any time after Licensor notifies Janssen of its election to conduct a Phase 2 MS POC Study, Janssen may object to the commencement or conduct of the Phase 2 MS POC Study by written notice to Licensor for one or both of the following reasons (a "**Study Rejection Notice**"):

(a) Janssen has good faith concerns regarding safety risks of the Phase 2 MS POC Study; or

(b) Janssen has good faith concerns regarding potential material adverse effects of the Phase 2 MS POC Study on the Development or Commercialization of the Licensed Products, and Janssen's determination that it has such concerns is made (i) in a manner not inconsistent with similar determinations made by Janssen and its Affiliates under similar circumstances for similar products or product candidates owned or controlled by Janssen and its Affiliates, or to which Janssen or any of its Affiliates have similar rights, having similar market potential and at a similar stage in development or product life and (ii) after considering any input provided by Licensor.

Any Study Rejection Notice will state the reasons for Janssen's objection.

3.4.3 Effect of Janssen Objection.

(a) If Janssen provides a Study Rejection Notice in accordance with Section 3.4.2, Licensor will not commence, or will promptly discontinue, the Phase 2 MS POC Study unless and until Janssen and Licensor agree on how to address the concerns stated in the Study Rejection Notice to both Parties' satisfaction.

(b) Following Licensor's receipt of a Study Rejection Notice, upon Licensor's request, the Parties will promptly meet and discuss in good faith how to address the concerns stated in the Study Rejection Notice.

3.4.4 Conduct of Phase 2 MS POC Study. Following Licensor's determination of the trial design, endpoints and protocol for the Phase 2 MS POC Study in accordance with Section 3.4.1 and submission to Janssen for review and comment in accordance with Section 3.4.1, if Janssen does not object to the study in accordance with Section 3.4.2, Licensor may conduct the study in accordance with the terms and conditions set forth in this Section 3.4.4, subject to Section 3.4.2 and Section 3.4.3. For the avoidance of doubt, Licensor may not conduct the Phase 2 MS POC Study unless and until the trial design, endpoints and protocol for the Phase 2 MS POC Study have been determined by Licensor in accordance with Section 3.4.1 and submitted to Janssen for review and comment in accordance with Section 3.4.1 and any objections of Janssen under Section 3.4.2 have been addressed to Janssen's satisfaction in accordance with Section 3.4.2.

(a) Licensor will be the sponsor of, conduct and control the Phase 2 MS POC Study and will have the right to make operational and administrative decisions regarding the study (e.g., the right to select and engage clinical trial sites). The Phase 2 MS POC Study will be conducted in accordance with the trial design, endpoints and protocol determined in accordance with Section 3.4.1 and will commence (i.e., the first subject in the Phase 2 MS POC Study will be dosed) no later than [***], provided that if the commencement of the Phase 2 MS POC Study is delayed as a result of any act or omission of Janssen or of any Regulatory Authority, such deadline will be equitably extended (but at least for a number of days equal to the number of days that such act or omission causes such delay). If Licensor does not commence the Phase 2 MS POC Study by such deadline, as it may be extended in accordance with the preceding proviso, then Licensor's right to conduct a Phase 2 MS POC Study will immediately and permanently expire and this Section 3.4 will be of no further force or effect.

(b) Licensor will provide Janssen with [***] reports on the progress of the Phase 2 MS POC Study.

(c) Licensor will be solely responsible for all costs and expenses of conducting the Phase 2 MS POC Study (including the costs of clinical supply of Licensed Products, to the extent set forth in Section 2.2.3(b)(iii) and Section 2.2.3(b)(iv)).

(d) All arrangements with any Third Party involved in conducting or supporting the Phase 2 MS POC Study, including clinical investigators, study sites or contract research organizations, will be made in writing and consistent with this Agreement. Licensor will not enter into any arrangements for the Phase 2 MS POC Study with any contract research organization other than the entity set forth on Schedule 3.4.4(d), without Janssen's prior written consent. Licensor will not use any study sites outside of the United States for the Phase 2 MS POC Study without Janssen's prior written consent.

(e) Licensor will use the same formulation of the Licensed Product in the Phase 2 MS POC Study that Janssen is using or intending to use in its Clinical Studies of the Licensed Product. Licensor will use only Licensed Product drug product supplied by Janssen pursuant to Section 2.2.3(b)(iv) in the Phase 2 MS POC Study.

(f) Licensor will have the right to submit INDs/CTAs and communicate with Regulatory Authorities with respect to the Phase 2 MS POC Study subject to the following:

(i) Janssen will have the right to review and approve any documents or correspondence relating to the study that Licensor plans to submit to any Regulatory Authority in advance of their submission. Licensor will provide drafts of such documents or correspondence to Janssen at least [***] Business Days in advance of submission, unless circumstances necessitate a shorter time for review. Material documents and correspondence received by Licensor from a Regulatory Authority will be provided to Janssen as soon as practicable and, in any event, within [***] Business Days after receipt. If Janssen does not respond to a proposed submission within [***] Business Days after receipt, then Licensor may resubmit such proposed documents or correspondence to Janssen (a "**Second Regulatory Authority Submission Request**"). Janssen shall be deemed to approve a proposed submission if Janssen does not affirmatively reject such proposed submission within [***] Business Days after Janssen receives the Second Regulatory Authority Submission Request corresponding thereto. Janssen shall also be deemed to approve a proposed submission on the day that the Regulatory Authority requires such submission as a response if: (A) Janssen has not rejected such proposed submission by such date; and (B) Licensor timely provided Janssen with a draft of such proposed submission in accordance with this Section 3.4.4(f)(i).

(ii) Subject to applicable Law, Janssen will have the right to have one or more representatives participate in all material meetings (including by telephone), conferences and discussions by Licensor with Regulatory Authorities relating to the study.

Licensor will provide Janssen with reasonable advance notice of all such meetings, conferences and discussions and advance copies of all related documents and other relevant information relating to such meetings, conferences and discussions.

(iii) Until such time as all INDs/CTAs for the Licensed Products are transferred to Janssen under Section 3.4.6, Licensor will, and hereby does, grant to Janssen an exclusive, non-transferrable (except as set forth in Section 13.1), worldwide, royalty-free "Right of Reference" as that term is defined in 21 C.F.R. § 314.3(b) and equivalent rights under any foreign counterparts to such regulation, under the INDs/CTAs for the Phase 2 MS POC Study and any other INDs/CTAs for the Licensed Products, to reference and access (and to grant to its Affiliates and sublicensees further rights to reference and access) such INDs/CTAs to Exploit the Licensed Compounds and Licensed Products in the Field in the Territory. If requested by Janssen, Licensor will provide a signed statement to this effect in accordance with 21 C.F.R. §314.50(g)(3) or any foreign counterpart to such regulation.

(iv) Janssen will have the sole right to prepare, and will hold, the investigator's brochure (IB) for the Licensed Products. Licensor will promptly provide to Janssen all data and information necessary or requested by Janssen for inclusion in such investigator's brochure.

(v) Janssen will have the sole right to submit development safety update reports with respect to the Licensed Products to Regulatory Authorities in the Territory. Licensor will promptly provide to Janssen all data and information necessary or requested by Janssen for inclusion in such development safety update reports.

(g) Janssen will have the right to designate a representative of Janssen as a non- voting member of the data safety monitoring board for the Phase 2 MS POC Study (such representative, the "**Designated Representative**", and such data safety monitoring board, the "**DSMB**") with the following rights: (i) receive all blinded materials and data packages provided to the Licensor for review and discussion prior to the open session of each DSMB meeting; (ii) participate in the open session of the data safety monitoring board meeting (equal to the participation of the other Licensor representatives); and (iii) participate in any discussions following the closed session of the DSMB, if needed and held. Neither the Designated Representative nor Janssen will participate in any closed session of the DSMB where unblinded data will be reviewed. Licensor will also provide Janssen, on a rolling basis (to the extent set forth in Section 3.4.4(b)), all data and results from the Phase 2 MS POC Study. Janssen will have the right to access all data and results from the study, and such data and results will be Licensed Know- How for purposes of this Agreement. Notwithstanding anything to the contrary in this Agreement, except as required by applicable Law, Licensor will not publish or otherwise disclose to any Third Party any data or results of the Phase 2 MS POC Study without Janssen's prior written consent. Any such publications or disclosures will be subject to ARTICLE 7 and Section 13.14.

(h) As soon as possible following each database lock for the Phase 2 MS POC Study, but no later than [***] days after such date, Licensor will provide to Janssen a data package for the study that contains: (i) a high-level summary of the available results from the study; and to the extent actually available to Licensor at such time, all translational research data and safety and efficacy analyses conducted with respect to the data generated from the study. Licensor will provide to Janssen the interim (if applicable) and final clinical study reports and a complete data set within [***] days following delivery to Janssen of the applicable data package under the preceding sentence.

(i) Licensor and its Affiliates have and will have no right to seek (or require Janssen to seek) Marketing Approval or a label extension for any Licensed Product (including the Lead Product) for multiple sclerosis, nor will Licensor purport to grant to any Third Party the right to do so. Except as described above in this Section 3.4.4, Janssen will retain the sole and exclusive right, and have sole authority with respect to, the Exploitation of the Licensed Compounds and Licensed Products in accordance with Section 3.1. Without limiting its obligations under Section 3.3 (to the extent applicable), Janssen will have no specific obligation to conduct any Clinical Studies of any Licensed Product for multiple sclerosis.

(j) Janssen will hold the global safety database for PIPE-307. The Parties will enter into a safety-data sharing agreement prior to the commencement of the Phase 2 MS POC Study.

3.4.5 Study Alliance Managers. Promptly following Licensor's delivery of a Phase 2 MS POC Study Notice, each Party will appoint one of its employees to serve as the primary point of contact regarding all matters relating to the Phase 2 MS POC Study (each, the "**Study Alliance Manager**"). When making a request of or communication with the other Party in connection with the Phase 2 MS POC Study, each Party shall only contact the Study Alliance Manager of the other Party unless otherwise directed by the Study Alliance Manager of the other Party. The Study Alliance Manager of each Party will be responsible for facilitating the timely responses of such Party with respect to requests relating to the Phase 2 MS POC Study.

3.4.6 Assignment of Regulatory Filings. At any time upon Janssen's request after the Effective Date, Licensor, on behalf of itself and its Affiliates, will and hereby does assign to Janssen all of Licensor's and its Affiliates' right, title and interest in, to and under all INDs/CTAs for the Licensed Products that are owned, controlled or otherwise held by Licensor or any of its Affiliates; provided, however, that Licensor will have no obligation to transfer to Janssen any [***] until the earliest of (a) the expiration of [***], (b) the expiration of [***] or (c) [***]. Licensor will deliver to Janssen full and complete copies of each of assigned IND/CTA and all related correspondence.

3.5 Conduct of Activities.

3.5.1 Standards of Conduct; Records. Each Party will conduct, and will cause its employees, subcontractors and investigators to conduct, all Research and Development of Licensed Compounds and Licensed Products in good scientific manner and in compliance with all applicable Law, including GMP, GLP and GCP, as applicable. Each Party will maintain, consistent with its then-current internal policies and practices, and cause its employees, subcontractors and investigators to maintain, records and laboratory notebooks of its Research and Development activities under this Agreement in sufficient detail and in a good scientific manner appropriate for regulatory and intellectual property protection purposes. Janssen will conduct all Commercialization activities under this Agreement in compliance with all applicable Law.

3.5.2 Reports. Until receipt of Commercialization Approval for a [***] Licensed Product in the U.S., Janssen will: (a) except as set forth in Section 4.8.2(d)(v), provide Licensor with high- level annual updates with respect to the Development (including regulatory matters) and Commercialization of the Licensed Compounds and Licensed Products and (b) on a [***] upon Licensor's request, make appropriate representatives available to discuss the Development and Commercialization of the Licensed Compounds and Licensed Products.

ARTICLE 4
FINANCIAL TERMS

4.1 Upfront Payment. Janssen will make a non-refundable, non-creditable payment of $50 million to Licensor within [***] days after the Effective Date.

4.2 Development and Regulatory Milestones.

4.2.1 Milestone Payments and Events. Janssen will notify Licensor within [***] Business Days after the first achievement of any milestone event set forth in the table below by or on behalf of Janssen or its Affiliates or sublicensees (each, a "**Milestone Event**"). Janssen will pay Licensor the amount set forth in the table below (each, a "**Milestone Payment**") corresponding to such Milestone Event within [***] days after Licensor delivers an invoice to Janssen for such Milestone Payment following Licensor's receipt of such notice from Janssen. Each Milestone Payment is payable no more than once, even if the corresponding Milestone Event occurs more than once or with respect to more than one Licensed Product.

	Milestone Event	Milestone Payment
	Development Milestones	
1.	[***]	$ [***]
2.	[***]	$ [***]
	Commercialization Approval Milestones	
3.	[***]	$ [***]
4.	[***]	$ [***]
5.	[***]	$ [***]

4.2.2 Rules regarding Determination of Milestone Payments and Events.

(a) The Milestone Payments under this Section 4.2 are non-refundable and non-creditable.

(b) [***].

(c) [***].

(d) [***].

4.3 Sales Milestones. Janssen will notify Licensor in the applicable royalty report delivered under Section 4.4.5 after the first occurrence of any sales milestone event set forth in the table below (each, a "**Sales Milestone Event**"). Janssen will pay Licensor the amount set forth in the table below (each, a "**Sales Milestone Payment**") corresponding to such Sales Milestone Event within [***] days after Licensor delivers an invoice to Janssen for such Milestone Payment following Licensor's receipt of such notice from Janssen. Each Sales Milestone Payment is payable no more than once, regardless of whether the corresponding Sales Milestone Event occurs more than once. The Sales Milestone Payments under this Section 4.3 are non-refundable and non-creditable.

Sales Milestone Event	Sales Milestone Payment
[***]	$ [***]
[***]	$ [***]
[***]	$ [***]
[***]	$ [***]
[***]	$ [***]
[***]	$ [***]

4.4 Royalties.

4.4.1 Royalty Rates. Subject to Section 4.4.3, Janssen will pay to Licensor royalties on Annual Aggregate Net Sales of Licensed Products during each Calendar Year at the rates set forth in the table below, provided that, if Licensor exercises its Co-Funding Option, the royalty rates set forth below will not apply, and instead the royalty rates set forth in Section 4.8.2(e) will apply.

Annual Aggregate Net Sales of Licensed Products in a Calendar Year	Royalty Rate
For that portion of Annual Aggregate Net Sales of Licensed Products in such Calendar Year less than or equal to $[***]	[***]%
For that portion of Annual Aggregate Net Sales of Licensed Products in such Calendar Year greater than $[***] and less than or equal to $[***]	[***]%
For that portion of Annual Aggregate Net Sales of Licensed Products in such Calendar Year greater than $[***] and less than or equal to $[***]	[***]%
For that portion of Annual Aggregate Net Sales of Licensed Products in such Calendar Year greater than $[***]	[***]%

By way of example, if Annual Aggregate Net Sales of Licensed Products during a Calendar Year were $[***], the royalties due with respect to such Licensed Products would equal the sum of (a) [***]% of $[***] (i.e., $[***]), (b) [***]% of $[***] (i.e., $[***]) and (c) [***]% of $[***] (i.e., $[***]), for a total of $[***].

4.4.2 Royalty Term.

(a) *Definition of Royalty Term*. Royalties will be paid on a Licensed Product- by-Licensed Product and country-by-country basis, beginning with the First Commercial Sale of a Licensed Product in a country and ending on the latest to occur of: (a) the expiration of the last- to-expire Royalty-Bearing Claim with respect to such Licensed Product in such country; (b) the expiration of Regulatory Exclusivity for such Licensed Product in such country, if any; or (c) the 10th anniversary of the First Commercial Sale of the Licensed Product in the country (the "**Royalty Term**").

(b) *Definition of Royalty-Bearing Claim*. "**Royalty-Bearing Claim**" means, with respect to a Licensed Product in a country, a Valid Claim of a Licensed Patent (including a Joint Patent, if any) in such country, which Valid Claim Covers the composition of matter of the Licensed Compound contained in such Licensed Product.

4.4.3 Royalty Reductions; Third Party Royalty Payments.

(a) *Reductions for Loss of Exclusivity*. On a Licensed Product-by-Licensed Product and country-by-country basis during the Royalty Term for a Licensed Product in a country, Net Sales of such Licensed Product in such country will be reduced by [***] percent ([***]%) for purposes of determining the royalties due to Licensor under this Section 4.4 with respect to such Licensed Product in such country, from and after the later of (i) the date that there is no Royalty- Bearing Claim with respect to such Licensed Product in such country or (ii) if any Regulatory Exclusivity is granted with respect to such Licensed Product in such country, the date on which all such Regulatory Exclusivity expires. Such reduction will be subject to Section 4.4.3(c).

(b) *Third Party Royalty Payments*.

(i) Licensor will be solely responsible for and will make when due all payments due under any In-License, including any amounts that are incurred after the Execution Date.

(ii) If Janssen (or its Affiliate or sublicensee, as applicable) reasonably determines that it is necessary or reasonably useful to obtain one or more licenses or otherwise acquire rights under any Patents or Know-How of any Third Party to manufacture, use or sell a Licensed Compound or Licensed Product in a country (each, a "**Third Party License**"), Janssen will have the sole right (but not the obligation), subject to Section 4.4.3(b)(iii), to negotiate and obtain a license or other rights related to such Patents or Know-How with respect to the Licensed Compounds and Licensed Products. Janssen will have the right to deduct [***] percent ([***]%) of payments (including upfront payments, milestone payments, royalties or other payments, including payments made in settlement of an Infringement Claim) actually paid to such Third Party(ies) under such Third Party License(s) by Janssen (or by such Affiliate or, to the extent offset against royalties paid to Janssen, its sublicensee, as applicable) with respect to the Licensed Products in a Calendar Quarter from the royalty payments payable by Janssen to Licensor with respect to Annual Aggregate Net Sales of Licensed Products in such Calendar Quarter. Such deduction will be subject to Section 4.4.3(c).

(iii) For clarity, Janssen's right under Section 4.4.3(b)(ii) above to negotiate and obtain Third Party Licenses does not limit Licensor's right to negotiate and obtain, [***], any license under any Third Party intellectual property with respect to the Exploitation of any products or compounds other than Licensed Compounds or Licensed Products. If Licensor enters into a license agreement under any Third Party intellectual property that applies to such other products or compounds, where (x) the scope of the license grant under such generally applicable Third Party intellectual property includes the Exploitation of Licensed Compounds or Licensed Products and (y) such license agreement imposes any payment obligations with respect to the Exploitation of Licensed Compounds or Licensed Products, then (1) such intellectual property will automatically constitute Licensed Technology (to the extent that it satisfies the definition thereof) and (2) Licensor will [***] for such payment obligations. For the avoidance of doubt, Licensor's entry into any such license agreement for the sole purpose of Exploiting products or compounds other than Licensed Compounds or Licensed Products will not constitute a breach of this Agreement.

(c) *Royalty Floor*. In no event will the total reductions and deductions under Section 4.4.3(a) and Section 4.4.3(b) reduce the royalties payable to Licensor under Section 4.4.1 with respect to Annual Aggregate Net Sales of Licensed Products in any Calendar Quarter by more than [***] ([***]%) of the amount that would otherwise be payable if such reductions and deductions were not made; provided, however, that to the extent Janssen cannot deduct any amounts because of this Section 4.4.3(c), Janssen may deduct such amounts from royalties payable in future Calendar Quarters, in each case, subject to the limitation in this Section 4.4.3(c).

4.4.4 Expiration of Royalty Term. Upon the expiration of the Royalty Term with respect to a Licensed Product in a country, the license granted to Janssen under Section 5.1.1 with respect to such Licensed Product in such country will automatically become fully-paid, royalty-free, perpetual and irrevocable. For the avoidance of doubt, any sales of such Licensed Product in such country following such expiration will be excluded from Annual Aggregate Net Sales of Licensed Products for purposes of any Sales Milestone Payments under Section 4.3 or royalties under this Section 4.4.

4.4.5 Royalty Reports and Payments. After the First Commercial Sale of a Licensed Product by Janssen or its Affiliates or sublicensees in any country in the Territory occurs, royalty payments under this Section 4.4 are due and payable [***] days after the end of each Calendar Quarter in which royalties accrue. Concurrently with the payment of royalties to Licensor under this Section 4.4, Janssen will deliver to Licensor a report setting forth, consistent with Janssen's regional reporting system, the Net Sales of Licensed Products in such Calendar Quarter (which Net Sales occurred during the Royalty Term with respect to the applicable Licensed Product in the applicable country), the applicable royalty rate and the amount of royalty payment due on such Net Sales. Additionally, Janssen will provide Licensor with a non-binding estimate of each royalty payment for each Calendar Quarter within [***] days after the end of such Calendar Quarter. All royalty reports delivered by Janssen and all information contained therein will be Confidential Information of Janssen.

4.4.6 Royalty Conditions. All royalties due to Licensor under this Section 4.4 are subject to the following conditions: (a) only one royalty will be due with respect to the same unit of Licensed Product; and (b) no royalties will be due upon the sale or other transfer among Janssen or its Affiliates or sublicensees, but in such cases the royalty will be due and calculated upon Janssen's or its Affiliate's or sublicensee's Net Sales to the first independent Third Party, and distributors of Janssen selling Licensed Product that are not otherwise sublicensees will not, for this purpose, be deemed to be sublicensees of Janssen and will instead be considered as independent Third Parties.

4.5 Payment Terms.

4.5.1 Payment Instruction. All payments to be made by a Party under this Agreement will be made in U.S. Dollars by electronic funds transfer to the bank account as will be designated by the Party receiving the payment.

4.5.2 Exchange Rate. If any amounts related to the determination of amounts to be paid or calculations to be performed under this Agreement are received, paid or initially reported in a currency other than U.S. Dollars, then such amounts will be converted to their U.S. Dollar equivalent as follows:

(a) Janssen will notify Licensor in writing of Johnson & Johnson's Currency Hedge Rate for a given Calendar Year in advance of such Calendar Year, within [***] Business Days after the Currency Hedge Rate(s) are available from the GTSC or its Affiliates, which is customarily at the beginning of December of the preceding Calendar Year; and

(b) then: (i) the Currency Hedge Rate(s) as provided in the notice to Licensor will remain constant throughout the applicable Calendar Year; and (ii) Janssen will use such Currency Hedge Rate(s) to convert non-U.S. Dollar amounts to U.S. Dollars for the purpose of calculating Net Sales, royalties and the achievement of Sales Milestone Events for each Calendar Quarter in the applicable Calendar Year.

4.6 Records; Audits.

4.6.1 Records. Each Party will keep, and cause its Affiliates and sublicensees to keep, complete and accurate records of the items underlying Net Sales, Shared Development Costs and any other elements required to prepare the reports or calculate payments required under this Agreement. Such records must be retained for a period of [***] months after the relevant reporting period.

4.6.2 Audits.

(a) Each Party will have the right at its own expense to have an independent, certified public accountant of nationally recognized standing, selected by such Party and reasonably acceptable to the other Party, review any records of the other Party and its Affiliates that are required to be kept pursuant to Section 4.6.1 in the location(s) where such records are maintained by the other Party or its Affiliates upon prior written notice, during normal business hours and under obligations of confidence, for the sole purpose of verifying the basis and accuracy of payments made under this Agreement, within the prior [***]-month period. Audits may not be conducted by a Party under this Section 4.6.2 more than once every [***] years, and an audit of the records relating to a particular Calendar Year may be conducted not more than once.

(b) The report of the independent certified public accountant will be shared with the audited Party before distribution to the auditing Party so that the audited Party can provide the independent public accountant with justifying remarks for inclusion in the report before sharing the conclusions of such independent public audit with the auditing Party. The final audit report will be shared with the auditing and audited Party at the same time and will specify whether the amounts paid to the auditing Party during the audited period were correct or, if incorrect, the amount of any underpayment or overpayment. The audit report will only contain the information relevant to support the statement as to whether the amounts due under this Agreement were calculated and paid accurately and will not include any other confidential information (or other additional information that is ordinarily not included in the reports to the auditing Party) disclosed to the auditor during the course of the audit.

(c) If the review of such records reveals that the audited Party has failed to accurately report information pursuant to the relevant provisions of this Agreement or make any payment (or portion thereof) required under this Agreement, then the underpaying Party will pay to the other Party, within [***] days after receipt of the final audit report by the audited Party, any underpaid amounts due under this Agreement. If any such discrepancies resulted in an underpayment of amounts payable by the audited Party under this Agreement greater than [***]% of the amounts actually due for the applicable audit period, the audited Party will pay all reasonable costs incurred in conducting such review. If the audited Party disagrees with the findings of the audit report, the Parties will first seek to resolve the matter between themselves; in the event they fail to reach agreement, the dispute resolution provisions set forth in ARTICLE 12 will apply.

4.7 Taxes.

4.7.1 Withholding.

(a) Janssen will make all payments to Licensor under this Agreement without deduction or withholding for Taxes except to the extent that any such deduction or withholding is required by law in effect at the time of payment. The Parties shall cooperate reasonably with each other to ensure that any amounts required to be withheld by either Party are reduced in an amount to the fullest extent permitted by Law.

(b) Any Tax required to be withheld on amounts payable under this Agreement will be paid by Janssen on behalf of Licensor to the appropriate Governmental Authority, and Janssen will furnish Licensor with proof of payment of such Tax. Any such Tax required to be withheld will be an expense of and borne by Licensor. If any such Tax is assessed against and paid by Janssen, then Licensor will indemnify and hold harmless Janssen from and against such Tax.

(c) Janssen and Licensor will cooperate with respect to all documentation required by any taxing authority or reasonably requested by either Party to secure a reduction in the rate of applicable withholding Taxes. On the Execution Date, Licensor will deliver to Janssen an accurate and complete Internal Revenue Service Form W-9 and as soon as practicable thereafter, an exemption certificate under the respective treaty between the U.S. and Germany. The Parties hereby provide their consent to disclose this Agreement to the German tax authorities for purposes of obtaining such an exemption certificate.

4.7.2 Indirect Taxes. Amounts payable under this Agreement do not include any sales, use, excise, value added or other applicable taxes, tariffs or duties. If any taxing authority imposes a VAT, GST, sales, use, service, consumption, business or similar Tax with respect to the work undertaken under this Agreement, then Janssen agrees to pay that amount if specified in a valid invoice or supply exemption documentation. For avoidance of doubt, Licensor will not be entitled to pass on to Janssen, and Janssen will not be obligated to pay or bear, any Tax that is based on Licensor's real, personal or intangible property (whether owned or leased), corporate structure, franchise, continuing business operations, income, gross receipts, capital stock, net worth or imposed with respect to Licensor's engagement of employees or independent contractors or that Licensor incurs upon subcontracting any work under this Agreement, in whole or in part, to any affiliated or non-affiliated third party. Licensor is solely responsible, to the extent required by applicable law, for identifying, billing, and collecting the Taxes payable by Janssen in all relevant federal, state, county, municipal and other taxing jurisdictions and for filing all required tax returns in a timely manner. To the extent that Licensor does not provide Janssen a valid invoice (i.e., an invoice compliant with this Agreement and the rules and regulations of the jurisdiction of both Licensor and Janssen, including separate identification of the Tax where legally required), Licensor will be responsible for any penalty resulting directly from such noncompliance. The Parties will cooperate in good faith to minimize Taxes to the extent legally permissible.

4.8 Financial Co-Funding Option. Janssen hereby grants to Licensor the right to elect to co- fund worldwide Development of Licensed Products in the Territory on the terms set forth in this Section 4.8 (the "**Co-Funding Option**").

4.8.1 Co-Funding Option Exercise.

(a) *Notice from Janssen*. If Janssen or any of its Affiliates intends to conduct a first Phase 3 Study of a Licensed Product, then, following completion of Janssen's internal approvals to conduct such Phase 3 Study, Janssen will notify Licensor in writing of Janssen or its Affiliate's intent to conduct such Phase 3 Study.

(b) *Licensor Data Package Request*. Within [***] Business Days following such notice, Licensor will notify Janssen in writing if Licensor desires to receive a Data Package from Janssen.

(c) *Data Package Delivery and Contents*. If Licensor requests a Data Package in accordance with Section 4.8.1(b), Janssen will provide to Licensor within [***] days of such notice a data package containing the following information (to the extent not already in Licensor's possession): (i) the final Phase 2 Study (or, if applicable, Phase 2b study) clinical trial report(s) for such Licensed Product; (ii) all other available safety and efficacy data with respect to the Licensed Products; (iii) a summary of relevant and available Manufacturing information for the Licensed Products; (iv) Shared Development Costs relating to any Phase 3 Study of a Licensed Product incurred before the date of Licensor's notice under Section 4.8.1(b); and (v) Janssen's then-current internal Development plan and associated non-binding budget for the Licensed Products (the information in clauses (i) through (v), a "**Data Package**").

(d) *Co-Funding Option Exercise Date*. Licensor may exercise its Co-Funding Option by notifying Janssen of such option exercise within [***] days after Licensor receives such Data Package (the date of such notice, the "**Co-Funding Option Exercise Date**").

(e) *Expiration of Co-Funding Option*. If Licensor does not request a Data Package in accordance with Section 4.8.1(b), or does not exercise its Co-Funding Option within [***] days after receiving a Data Package, Licensor's right to exercise the Co-Funding Option will immediately and permanently expire and this Section 4.8 will be of no further force or effect.

4.8.2 Effects of Co-Funding Option Exercise. If Licensor timely exercises its Co- Funding Option in accordance with Section 4.8.1(d), then the terms of this Section 4.8.2 will apply from and after the Co-Funding Option Exercise Date.

(a) *Definitions*.

(i) "**Cost of Goods**" or "**COGS**" means Janssen's reasonable internal and Third Party costs incurred in manufacturing or acquisition of (and to the extent directly attributable to) Licensed Product, determined in accordance with Janssen's standard cost accounting policies that are in accordance with GAAP and consistently applied across all of Janssen's manufacturing network to other products that Janssen manufactures. COGS does not include any costs of CMC Development Activities. "COGS" are comprised of Standard Cost of Goods Manufactured, Cost Variances, and Other Costs Not Included in Standard, where:

(1) "**Standard Cost of Goods Manufactured**" are budgeted unit costs established to facilitate inventory evaluation, planning and budgetary control, including direct materials, direct labor, product testing, transportation, depreciation and overhead (including Third Party costs for manufacturing or acquisition of product or materials used in such manufacture), in each case, to the extent directly attributable to Licensed Products Manufactured by or on behalf of a Party under this Agreement or, if any, under a supply agreement between the Parties;

(2) "**Cost Variances**" are direct materials variances (including material usage variances and purchase price variances), direct labor variances and overhead variances (including but not limited to volume variances, variable overhead spending variances and fixed overhead spending variances);

(3) "**Other Costs Not Included in Standard**" are actual costs of manufacturing which are incurred in the normal course of business but are not included in the Standard Cost of Goods Manufactured and Cost Variances, including, but not limited to: cash discounts on raw material purchases, transportation expenses, manufacturing trial runs, manufacturing development expenses, start-up costs, appropriation expenses, abnormal capacity or idle facility costs (to the extent such capacity or portion of a facility is reserved for Manufacturing Licensed Compounds or Licensed Products under this Agreement or a supply agreement between the Parties), shut-down costs, material scrapped in the normal course of business (including failed commercial batches), rework, obsolete facility and machinery, impairment expenses, full absorption adjustments, inventory revaluation adjustments, lower of cost or market inventory adjustments, inventory write-downs and write-offs, physical inventory adjustments, depreciation of equipment or instruments placed at customer or other Third Party sites, new product introduction costs, technical operations, internal inventory supply management and other home office expenses, returned goods, royalty expense, and product liability insurance, in each case to the extent directly attributable to Licensed Products Manufactured by or on behalf of a Party under this Agreement or, if any, under a supply agreement between the Parties; and

(4) the "**COGS**" calculation is in accordance with Janssen's standard process for calculating cost of goods sold that is consistently applied to all applicable products.

(ii) "**CPI**" means the Consumer Price Index for all Urban Consumers (national CPI-U; Base Period: 1982-84=100; available at http://www.bls.gov/cpi/home.htm), published by the U.S. Department of Labor, Bureau of Statistics (or its successor equivalent index) in the U.S.

(iii) "**Development FTE**" means [***] hours of work per Calendar Year in direct support of the Development of the Licensed Products that is carried out by one or more qualified employees or contractors or consultants of Janssen or its Affiliates, provided that one individual conducting more than [***] hours of work in any Calendar Year will not be considered more than one Development FTE and, in the case of work by an individual that is less than [***] hours, will be pro-rated based on the actual number of hours expended by such individual. Development FTE includes scientific, medical, technical and other personnel directly engaged in performing Development activities with respect to the Licensed Products (including the project management teams that support the Licensed Products). Development FTE will not include work performed by personnel performing administrative and corporate functions (including human resources, finance, legal and investor relations).

(iv) "**Development FTE Costs**" means, with respect to any period, the amount calculated by multiplying the Development FTE Rate by the number of Development FTEs expended by a Party during such period.

(v) "**Development FTE Rate**" means a rate of US$[***] per full- time Development FTE per Calendar Year; provided, however, that such rate will be increased or decreased [***] during the Term, effective as of the first day of the first Calendar Quarter of each Calendar Year during the Term, by the percentage increase or decrease in the CPI between January of the most recently completed Calendar Year and January of the then-current Calendar Year, or an alternative methodology that is mutually agreed to by both Parties. The Development FTE Rate is "fully burdened" and will cover employee salaries (excluding stock-based compensation), benefits, utilities, facilities, and travel expenses.

(vi) "**Out-of-Pocket Expenses**" means amounts paid by or on account of Janssen or its Affiliates to Third Party vendors or contractors for supplies and materials for use, or for services provided by them, directly in the performance of Development activities relating to the Licensed Compounds and Licensed Products under this Agreement (or other activities for which sharing of Out-of-Pocket Expenses is otherwise specified in this Agreement). For clarity, Out-of-Pocket Expenses do not include: (a) payments for Janssen's or its Affiliates' salaries or benefits, utilities, travel expenses, general office supplies, insurance, information technology, capital expenditures (or related depreciation), or the like; or (b) amounts paid relating to activities that were not performed under this Agreement.

(vii) "**Shared Development Costs**" means Development FTE Costs and Out-of-Pocket Expenses incurred by Janssen and its Affiliates in conducting Development activities with respect to Licensed Products in the Territory for any and all Indications, including:

(1) all Development FTE Costs and Out-of-Pocket Expenses incurred for the conduct of Development activities (including CMC Development Activities) with respect to the Licensed Products;

(2) with respect to non-clinical and clinical research and drug development activities for the Licensed Products (including Clinical Studies), the Cost of Goods for Licensed Products and other drugs, biological products or devices used in such Clinical Studies (including Development FTE Costs and Out-of-Pocket Expenses to purchase or package Third Party drugs, biological products and devices) and Development FTE Costs and Out-of-Pocket Expenses for disposal of clinical samples;

(3) with respect to regulatory activities for the Licensed Products, Development FTE Costs and Out-of-Pocket Expenses for fees incurred in connection with preparation of Regulatory Documentation (including INDs/CTAs and Drug Approval Applications), obtaining and maintaining Commercialization Approval, and for meetings with Regulatory Authorities; and

(4) Development FTE Costs and Out-of-Pocket Expenses associated with any REMS program with respect to any Licensed Product.

Notwithstanding anything to the contrary, Shared Development Costs do not include (i) capital expenditures (or any depreciation in connection with any capital expenditures), (ii) costs attributable to general corporate activities, executive management, investor relations, treasury services, business development, corporate government relations, finance, and other overhead or (iii) costs attributable to the Manufacture of Licensed Products for sale after Commercialization Approval in a country.

For the avoidance of doubt, any costs incurred by Licensor or its Affiliates in connection with the Phase 2 MS POC Study will not constitute Shared Development Costs.

(b) *Development Cost Share*. Any (i) Shared Development Costs relating to any Phase 3 Study of a Licensed Product, whether incurred before or after the Co-Funding Option Exercise Date, and (ii) other Shared Development Costs incurred on or after the Co-Funding Option Exercise Date by Janssen and its Affiliates, in each case ((i) and (ii)), will be borne [***]% by Janssen and [***]% by Licensor, in accordance with the procedures set forth in this Section 4.8.2(b), provided that Licensor's obligation to reimburse Janssen for its portion of Shared Development Costs will be subject to the Annual Co-Fund Cap as set forth below.

(i) *Cost Reports*. Shared Development Costs will initially be borne by Janssen, subject to reimbursement as provided in this Section 4.8.2(b). Within [***] days after the end of each Calendar Quarter, Janssen will provide to Licensor a report of all Shared Development Costs incurred by Janssen and its Affiliates during such Calendar Quarter (each, a "**Cost Report**"). Janssen shall maintain records of Cost Reports pursuant to Section 4.6.1 and all such Cost Reports shall be subject audit pursuant to Section 4.6.2. Without limiting the foregoing, within [***] after the end of each Calendar Quarter, Janssen shall provide Licensor with an estimate of Shared Development Costs incurred by Janssen in such Calendar Quarter.

(ii) *Licensor Payment Obligation and Annual Co-Fund Cap*. No later than [***] days following receipt of a Cost Report, Licensor will pay to Janssen [***]% of the total Shared Development Costs with respect to the applicable Calendar Quarter. Notwithstanding the foregoing, the aggregate amount Licensor is obligated to reimburse Janssen for its share of Shared Development Costs accrued by Janssen and its Affiliates in a single Calendar Year will not exceed $[***] (the "**Annual Co-Fund Cap**").

(iii) *Carry-Forward*. If any Shared Development Costs that would otherwise be borne by Licensor are excluded from sharing by Licensor for a particular Calendar Year as a result of the application of the Annual Co-Fund Cap, such excess Shared Development Costs will be carried forward to and paid to Janssen in the subsequent Calendar Year, subject in each case to the Annual Co-Fund Cap. Such carrying forward of excess Shared Development Costs will continue until such time as Janssen and its Affiliates are not incurring any further Shared Development Costs and Licensor has reimbursed Janssen for [***]% of all Shared Development Costs incurred by Janssen and its Affiliates from and after the Co-Funding Option Exercise Date.

(iv) *Janssen Offset Right*. Without limiting any other rights or remedies of Janssen at law, in equity or under this Agreement, if Licensor fails to timely pay any amounts owed to Janssen under this Section 4.8.2(b), Janssen may in its sole discretion offset any such amounts owed to Janssen against any Milestone Payments, royalties, or other amounts payable to Licensor under this Agreement, but only to the extent such amounts owed to Janssen are still unpaid at the time of such offset.

(v) *Effect of Licensor's Failure to Reimburse More than Once*.

(1) Without limiting any other rights or remedies of Janssen at law, in equity or under this Agreement, if Licensor breaches its obligation under Section 4.8.2(b)(ii) to reimburse Janssen any amounts with respect to any [***] Calendar Quarters or any [***] Calendar Quarters (whether or not consecutive), Janssen may in its sole discretion elect to terminate the provisions of this Section 4.8 immediately by giving notice to Licensor, subject to Section 4.8.2(b)(v)(2). Janssen may make such election at any time after the second breach occurs, regardless of whether Janssen has subsequently exercised its offset rights under Section 4.8.2(b)(iv) with respect to such Calendar Quarters or whether Licensor has subsequently cured such breaches. If Janssen makes such election, then, effective as of the date of such notice (or, if elected by Janssen, the first day of the Calendar Quarter immediately following the date of such notice): (A) the royalty rates set forth in Section 4.4.1 and not Section 4.8.2(e) will apply with respect to Annual Aggregate Net Sales of Licensed Products, (B) Licensor will no longer be obligated to reimburse Janssen for its portion of Shared Development Costs, and (C) this Section 4.8 will be of no further force or effect (except Section 4.8.2(b)(iii) and Section 4.8.2(b)(iv)). Such an election by Janssen will not relieve Licensor of its obligations under Section 4.8.2(b)(ii) that accrued before the date of such notice.

(2) If Licensor disputes in good faith any amount set forth on a Cost Report, and Licensor provides written notice of such dispute to Janssen no later than [***] days following receipt of such Cost Report, then Janssen may not make an election under Section 4.8.2(b)(v)(1) on the basis of Licensor's failure to reimburse Janssen for such amount until the date that the dispute is finally resolved in accordance with ARTICLE 12. If it is finally determined in accordance with ARTICLE 12 that Licensor is obligated to reimburse Janssen for such amount under Section 4.8.2(b)(ii), and Licensor thereafter fails to reimburse Janssen within [***] days of such resolution, Janssen may thereafter make an election under Section 4.8.2(b)(v)(1) on the basis of such failure. If it is finally determined in accordance with ARTICLE 12 that Licensor is not obligated to reimburse Janssen for such amount under Section 4.8.2(b)(ii), then Janssen may not make an election under Section 4.8.2(b)(v)(1) on the basis of failure to pay such amount.

(c) *Joint Development Committee*. Promptly following the Co-Funding Option Exercise Date, the Parties will establish a joint development committee (the "**JDC**") to serve as a forum for Janssen to provide information to Licensor regarding the Development of the Licensed Products. The JDC will have no decision-making authority.

(i) *JDC Representatives*. The JDC will consist of at least eight representatives, an equal number of which will be appointed by each of Licensor and Janssen. Each representative will be an employee of the Party it represents or one of its Affiliates and will have the appropriate level and type of experience for the matters to be discussed by the JDC. A Party may designate a substitute for any of its JDC representatives if its designated representative is unable to be present at a meeting. A Party may replace any of its JDC representatives by written notice to the other Party. Each JDC representative will be bound by confidentiality and non-use obligations at least as restrictive as those set forth in this Agreement.

(ii) *JDC Meetings*. The JDC will meet at least once each Calendar Quarter following the Co-Funding Option Exercise Date. The JDC may meet in person or by means of teleconference, Internet conference, videoconference or other similar communications equipment, as agreed to by the JDC members. In addition, Janssen may call a special meeting of the JDC at any time upon at least [***] Business Days' notice, and at least one of Licensor's representatives will attend any such special meeting. The Parties may allow additional employees to attend meetings of the JDC, so long as such employees are bound by confidentiality and non- use obligations at least as restrictive as those set forth in this Agreement. Each Party will bear its own expenses related to its representatives' participation in and attendance at such meetings.

(iii) *Disbandment of JDC*. The JDC will automatically dissolve when Janssen is not incurring any further Shared Development Costs under this Agreement. If Janssen later starts incurring Shared Development Costs, the Parties will re-establish the JDC pursuant to this Section 4.8.2(c).

(d) *Development after Exercise of Co-Funding Option*. After any exercise of the Co-Funding Option by Licensor, Janssen will retain the sole right and authority to conduct Development activities with respect to the Licensed Products in the Territory (except as expressly set forth in Section 3.4). Following the Co-Funding Option Exercise Date, such Development will be conducted in accordance with this Section 4.8.2(d).

(i) *General*. Following the Co-Funding Option Exercise Date, Janssen will conduct its Development of the Licensed Products in accordance with the then-current Global Development Plan.

(ii) *GDP*. "**Global Development Plan**" or "**GDP**" means the written plan for Janssen's Development of Licensed Products in the Territory setting forth those Development activities that Janssen intends to conduct for purposes of obtaining, maintaining and supporting Commercialization Approval, and of supporting and sustaining Commercialization, of the Licensed Products in the Territory, as such plan may be amended by Janssen from time to time in accordance with the terms of Section 4.8.2(d)(iv). The clinical development plan included in the Data Package delivered by Janssen to Licensor under Section 4.8.1(c) will be the initial GDP for the Licensed Products.

(iii) *Development Budget*. Together with the GDP, Janssen will provide to Licensor a non-binding budget reflecting Janssen's good faith estimate of Shared Development Costs to be incurred by Janssen and its Affiliates in conducting the Development activities described in the GDP that are scheduled to be commenced or conducted during the then-current Calendar Year (such budget, as it may be amended or updated from time to time by Janssen, the "**Development Budget**"). The budget included in the Data Package delivered by Janssen to

Licensor under Section 4.8.1(c) will be the initial Development Budget for the Licensed Products. Janssen will update the Development Budget at least once per Calendar Year to reflect Janssen's good faith estimate of Shared Development Costs to be incurred by Janssen and its Affiliates in conducting the Development activities described in the GDP for the next Calendar Year, in accordance with Section 4.8.2(d)(iv).

(iv) *Updates and Amendments*. Janssen may submit a proposed update or amendment to the GDP or the Development Budget to the JDC from time to time. The JDC will discuss such proposal at its next meeting (including any special meeting of the JDC called by Janssen for such purpose). Janssen will have sole decision-making authority with respect to whether to implement any such updates or amendments; provided, however, that Janssen will consider in good faith any timely comments of Licensor with respect to any update or amendment that constitutes a material change to the GDP or Development Budget. Janssen will promptly provide to Licensor a final copy of any such updated or amended GDP or Development Budget.

(v) *Development Reports*. Section 3.5.2 will not apply to the Licensed Products following the Co-Funding Option Exercise Date. In advance of each meeting of the JDC, Janssen will provide to the JDC a high-level summary report summarizing (a) its Development activities with respect to the Licensed Products that Janssen and its Affiliates have performed or caused to be performed since the last meeting of the JDC, including an evaluation of the work performed, and the results thereof, in relation to the goals of the GDP, and (b) Janssen's anticipated Development activities with respect to the Licensed Products for the subsequent Calendar Quarter.

(e) *Royalties*. The royalty rates set forth in Section 4.4.1 will not apply following the Co-Funding Option Exercise Date. Instead, Janssen will pay to Licensor royalties on Annual Aggregate Net Sales of Licensed Products during each Calendar Year at the rates set forth in the table below. All other provisions of Section 4.4 will continue to apply with respect to the calculation and payment of royalties on Annual Aggregate Net Sales of Licensed Products (including, for the avoidance of doubt, any applicable reductions or offsets).

Annual Aggregate Net Sales of Licensed Products in a Calendar Year	**Royalty Rate**
For that portion of Annual Aggregate Net Sales of Licensed Products in such Calendar Year less than or equal to $[***]	[***]%
For that portion of Annual Aggregate Net Sales of Licensed Products in such Calendar Year greater than $[***] and less than or equal to $[***]	[***]%
For that portion of Annual Aggregate Net Sales of Licensed Products in such Calendar Year greater than $[***] and less than or equal to $[***]	[***]%
For that portion of Annual Aggregate Net Sales of Licensed Products in such Calendar Year greater than $[***]	[***]%

(f) *Effects of Change of Control of Licensor*.

(i) Notwithstanding anything to the contrary in this Agreement, if Licensor undergoes a Competitive Change of Control prior to the Co-Funding Option Exercise Date, then: (i) if Licensor requests a Data Package in accordance with Section 4.8.1(b), (A) the Data Package will not include a GDP and (B) Janssen may redact competitively sensitive information from the Development Budget included in the Data Package; and (ii) if Licensor exercises the Co-Funding Option, (A) there will be no JDC and Section 4.8.2(c) will be of no force or effect, (B) Janssen will have no obligation to provide to Licensor any GDP or any amendments or updates thereto, (C) Janssen may redact competitively sensitive information from any Development Budget or amendments or updates thereto provided to Licensor, and (D) Janssen will make reports to Licensor as set forth in Section 3.5.2.

(ii) Notwithstanding anything to the contrary in this Agreement, if Licensor undergoes a Competitive Change of Control following the Co-Funding Option Exercise Date, then: (i) the JDC will immediately disband as of the effectiveness of such Competitive Change of Control and Section 4.8.2(c) will be of no further force or effect; and (ii) from and after the effectiveness of such Competitive Change of Control, (A) Janssen will have no further obligation to provide to Licensor any amendments or updates to the GDP, (B) Janssen may redact competitively sensitive information from any Development Budget or amendments or updates thereto provided to Licensor, and (C) Janssen will make reports to Licensor as set forth in Section 3.5.2.

(iii) Except as expressly set forth in this Section 4.8.2(f), if Licensor undergoes a Competitive Change of Control, all other provisions of this Section 4.8 will remain in effect in accordance with their terms.

4.8.3 Opt-Out.

(a) Licensor will have the right to terminate its rights and obligations set forth in Section 4.8.2 (such right, the "**Opt-Out Right**") by giving written notice (an "**Opt-Out Notice**") in accordance with the following terms and conditions:

(i) Licensor may exercise the Opt-Out Right by delivering Janssen an Opt-Out Notice on any date that is both (A) on or after the [***] of the Co-Funding Option Exercise Date and (B) no later than [***] days following Licensor's receipt of Janssen's initial Development Budget for the [***]. Such exercise, and the termination of rights and obligations set forth in Section 4.8.2, will be effective upon the first day of [***].

(ii) For example, [***].

(iii) "**Opt-Out Notice Period**" means the period starting on the date of the Opt-Out Notice and ending on the last day of the [***].

(b) During the Opt-Out Notice Period, the terms of Section 4.8.2 will continue to apply. Upon the expiration of the Opt-Out Notice Period, (i) the royalty rates set forth in Section 4.4.1 and not Section 4.8.2(e) will apply with respect to Annual Aggregate Net Sales of Licensed Products, (ii) Licensor will no longer be obligated to reimburse Janssen for its portion of Shared Development Costs, and (iii) this Section 4.8 (except Section 4.8.2(b)(iii) and Section 4.8.2(b)(iv)) will be of no further force or effect.

(c) Licensor's exercise of the Opt-Out Right will not relieve Licensor of its obligation under Section 4.8.2(b) to reimburse Janssen for amounts that accrue before the expiration of the Opt-Out Notice Period (including under Section 4.8.2(b)(iii)) or modify Janssen's rights under Section 4.8.2(b) with respect to such amounts (including under Section 4.8.2(b)(iv)). Janssen will have no obligation to reimburse Licensor for any amounts that were paid by Licensor to Janssen (or that were setoff by Janssen against amounts owed to Licensor) under Section 4.8.2(b).

ARTICLE 5
LICENSE GRANTS

5.1 License Grants.

5.1.1 License Grant to Janssen. Licensor hereby grants, on behalf of itself and its Affiliates, to Janssen, an exclusive (even as to Licensor and its Affiliates), worldwide, royalty- bearing license, with the right to sublicense as set forth in Section 5.3, under the Licensed Technology, to Exploit the Licensed Compounds and Licensed Products in the Field in the Territory. The license granted in this Section 5.1.1 includes the right to Exploit Combination Products in the Field in the Territory; provided, however, that Licensor does not grant to Janssen any rights under the Licensed Technology with respect to any Other Component of any such Combination Product.

5.1.2 Sublicense Grant to Licensor. Janssen hereby grants to Licensor a non-exclusive, non-sublicensable, non-transferable sublicense under the Licensed Technology solely to perform

(a) its obligations under ARTICLE 2 and the Transition Plan and (b) at Licensor's election, the Phase 2 MS POC Study, in each case ((a) and (b)), in accordance with this Agreement.

5.2 Affiliates. To the extent any of the Licensed Technology is Controlled by an Affiliate of Licensor, Licensor will procure that such Affiliate takes all actions necessary to enable Licensor to grant the licenses granted to Janssen under Section 5.1.1.

5.3 Sublicensing.

5.3.1 Right to Sublicense. Janssen may grant one or more sublicenses of any or all of the rights granted to it under Section 5.1.1 to any of its Affiliates or any Third Parties, without the consent of Licensor. Such sublicenses may be further sublicensable by the applicable sublicensee of Janssen, through multiple tiers.

5.3.2 Sublicense Requirements. Any sublicense to a Third Party will be set forth in a written agreement that is consistent with the terms and conditions of this Agreement. Janssen will be responsible for compliance by its sublicensees with the terms and conditions of this Agreement that are applicable to its sublicensees. Notwithstanding any such sublicense, Janssen will remain responsible to Licensor for the performance of all of its obligations under this Agreement.

5.4 Cross-Licenses.

5.4.1 License to Janssen. Subject to the terms and conditions of this Agreement (including the confidentiality obligations in ARTICLE 7), Licensor hereby grants, on behalf of itself and its Affiliates, to Janssen, a non-exclusive, worldwide, perpetual, irrevocable, fully paid- up license, with no right to sublicense other than to Affiliates of Janssen and subcontractors acting on Janssen's or its Affiliates' behalf, under Licensor's and its Affiliates' interest in any Know- How that is disclosed to Janssen under this Agreement, for any purpose other than the Exploitation of the Licensed Compounds and Licensed Products in the Field in the Territory; provided, however, that such license does not include a right to practice any Patents. For clarity, the foregoing license grant does not give Janssen the right to disclose any Confidential Information of Licensor, except as provided in Section 7.3.

5.4.2 License to Licensor. Subject to the terms and conditions of this Agreement (including the confidentiality obligations in ARTICLE 7), Janssen hereby grants, on behalf of itself and its Affiliates, to Licensor, a non-exclusive, worldwide, perpetual, irrevocable, fully paid-up license, with no right to sublicense other than to Affiliates of Licensor and subcontractors acting on Licensor's or its Affiliates' behalf, under Janssen's and its Affiliates' interest in any Know- How that is disclosed to Licensor under this Agreement, for any purpose other than the Exploitation of the Licensed Compounds and Licensed Products in the Field in the Territory; provided, however, that such license does not include a right to practice any Patents. For clarity, the foregoing license grant does not give Licensor the right to disclose any Confidential Information of Janssen, except as provided in Section 7.3.

5.5 No Implied Licenses. Neither Party grants to the other Party any rights or licenses in or to any Know-How, Patents or other intellectual property rights, whether by implication, estoppel, or otherwise, other than the rights and licenses that are expressly granted under this Agreement.

ARTICLE 6
INTELLECTUAL PROPERTY

6.1 Patent Representatives. Each Party will designate a patent attorney or agent as its contact to coordinate with the other Party regarding Patent matters as provided in this ARTICLE 6 (the "**Patent Representative**").

6.2 Inventions.

6.2.1 Ownership of Inventions. Each Party will own any Inventions invented by its (or its Affiliates') own employees, agents, or independent contractors in the course of conducting its activities under this Agreement, together with all intellectual property rights therein. Inventorship of Inventions will be determined in accordance with U.S. patent laws.

6.2.2 Invention Disclosure. Licensor will promptly disclose to Janssen any Invention that constitutes Licensed Technology. In addition, Licensor will promptly disclose to Janssen any small molecule that is first demonstrated by or on behalf of Licensor to be a M1 mAChR Antagonist prior to the [***] of the Effective Date. With respect to any Patent that seeks to claim any Inventions invented by at least one employee, agent, or independent contractor of each Party (or its respective Affiliates) engaged in performing activities under this Agreement ("**Joint Patent**"), each Party will promptly disclose to the other Party any invention disclosures, or other similar documents, submitted to it by its employees, agents or independent contractors describing the Invention(s) to be disclosed in such Patent, and all information necessary for the preparation, filing and maintenance of any such Joint Patent.

6.2.3 Treatment of Joint Patents. Subject to the licenses granted under this Agreement (including the exclusive license grant to Janssen under Section 5.1.1), each Party will have the right to practice and Exploit any inventions claimed in the Joint Patents without the duty of accounting to the other Party or seeking consent (for licensing, assigning or otherwise exploiting the Joint Patents) from the other Party by reason of the joint ownership thereof. Each Party hereby waives any right such Party may have under the laws of any jurisdiction to require any such approval or accounting and, to the extent there is any applicable Law that prohibits such a waiver, each Party will be deemed to have so consented. In furtherance thereof, at the reasonable written request of a Party, the other Party will in writing grant such consents and confirm that no such accounting is required to effect the foregoing regarding Joint Patents.

6.3 Prosecution of Licensed Patents.

6.3.1 Janssen Prosecution Right. Janssen will have the first right and authority, but not the obligation, to Prosecute the Licensed Patents in the Territory, [***] using counsel of Janssen's choosing. Janssen will keep Licensor reasonably informed, through Licensor's Patent Representative, with respect to such Prosecution. Janssen will provide a reasonable opportunity for Licensor to comment on all material filings prepared by Janssen's outside counsel with respect to the Prosecution of the Licensed Patents at any patent office prior to filing thereof, and will consider in good faith all timely comments of Licensor with respect thereto, provided that Janssen will have the sole decision-making authority with respect to such filings.

6.3.2 Janssen Abandonment. If Janssen decides, in its sole discretion, to abandon or not maintain (so as to permit to lapse) any Licensed Patent in any jurisdiction in the Territory, then Janssen will notify Licensor of such decision in writing at least [***] days before the final deadline for any pending action or response that may be due with respect to such Licensed Patent. If Licensor provides written notice to Janssen that it desires to continue the Prosecution of such Licensed Patent in such jurisdiction, then Janssen will cooperate with Licensor to transfer to Licensor the Prosecution of such Licensed Patent in such jurisdiction. After any such transfer, Licensor will have the sole right and authority, but not the obligation, to Prosecute such Licensed Patent in such jurisdiction, [***] using counsel of Licensor's choosing.

6.3.3 Cooperation. Each Party will provide, [***], all reasonable assistance requested by the Prosecuting Party in Prosecuting any Licensed Patents consistent with the terms hereof, including with respect to the timely completion of filings, compliance with applicable Laws and recording of inventor assignments.

6.4 Enforcement of Licensed Patents.

6.4.1 Notice. In the event that either Party becomes aware of any actual or threatened infringement of any Licensed Patent in any country in the Territory (collectively, "**Infringement**"), such Party will notify the other Party promptly and, upon Janssen's request, the Parties will confer regarding such Infringement.

6.4.2 Janssen Enforcement Right.

(a) Janssen will have the first right to institute infringement suits or undertake other action under the Licensed Patents against an Infringement, including controlling the defense of a declaratory judgment action with respect to a potential Infringement (each, an "**Infringement Action**"), [***] using counsel of Janssen's choosing, in the name of either Party or both Parties.

(b) If Janssen institutes or undertakes an Infringement Action in accordance with Section 6.4.2(a), Licensor will cooperate fully with Janssen in such Infringement Action and hereby agrees to be joined as a party in such Infringement Action if requested by Janssen or required by applicable Law, in each case, [***]. In addition, Licensor will have the right, [***], to voluntarily join or otherwise participate in such Infringement Action with legal counsel selected by Licensor. Janssen will notify and keep Licensor apprised in writing of such Infringement Action, and will consider in good faith all timely comments of Licensor with respect thereto, provided that Janssen will have the sole decision-making authority with respect to such Infringement Action.

6.4.3 Licensor Step-In Right.

(a) If Janssen does not institute or undertake an Infringement Action in accordance with Section 6.4.2(a) for a period [***] days after being requested by Licensor to do so, or (if sooner) at least [***] days prior to the last date such Infringement Action may be instituted or undertaken, Licensor may provide written notice to Janssen that it desires to institute or undertake and thereafter control such Infringement Action. Subject to Janssen's prior written consent (which may be withheld in Janssen's sole discretion if Janssen has decided for strategic reasons not to institute an Infringement Action), Licensor will have the right, but not the obligation, to institute or undertake an Infringement Action, [***] using counsel of Licensor's choosing, in the name of either Party or both Parties.

(b) If Licensor institutes or undertakes an Infringement Action in accordance with Section 6.4.3(a), Janssen will cooperate fully with Licensor in such Infringement Action and hereby agrees to be joined as a party in such Infringement Action if requested by Licensor or required by applicable Law, in each case, [***]. In addition, Janssen will have the right, in Janssen's sole discretion and [***], to voluntarily join or otherwise participate in such Infringement Action with legal counsel selected by Janssen. Licensor will notify and keep Janssen apprised in writing of such Infringement Action, and will take into account Janssen's reasonable interests and comments with respect thereto; provided that Licensor will have the sole decision-making authority with respect to such Infringement Action.

6.4.4 Paragraph IV Filings. If either Party receives a copy of a notice filed pursuant to Section 355(b)(2)(A)(iv) or (j)(2)(A)(vii)(IV) of the Hatch-Waxman Act, or any successor or similar provision of law in any jurisdiction, with respect to the Licensed Patents (a "**Paragraph IV Certification**"), such Party will, within [***] Business Days, notify the other Party. In the event of any such Paragraph IV Certification, Janssen will have the sole right, but not the obligation, to initiate an Infringement Action against the filer of the Paragraph IV Certification to enforce any Licensed Patent. Janssen will have the right to institute such Infringement Action in the name of either Party or both Parties. If Janssen institutes any such Infringement Action, then Licensor will join as a party to such Infringement Action if requested by Janssen or required by applicable Law, in each case, [***].

6.4.5 Cooperation. In any Infringement Action initiated under this Section 6.4 in any jurisdiction, each Party will reasonably cooperate with the other Party, in good faith, with respect to such Infringement Action. Notwithstanding anything to the contrary in this Section 6.4, neither Party will settle or compromise any Infringement Action without the prior written consent of the other Party, which consent will not be unreasonably withheld, provided that, if Janssen is the controlling Party, Janssen may settle an Infringement Action without Licensor's consent through the grant of a sublicense to the applicable Third Party consistent with the requirements of Section 5.3.

6.4.6 Recoveries. With respect to any Infringement Action initiated or undertaken pursuant to this Section 6.4 in any jurisdiction, any recovery obtained as a result of such Infringement Action, by settlement or otherwise, will be applied in the following order of priority:

(a) first, each Party will be reimbursed for all out-of-pocket expenses incurred by such Party and its Affiliates in connection with such Infringement Action and not otherwise recovered (which reimbursement will be made proportionally between the Parties if such recovery is less than the total of such out-of-pocket expenses); and

(b) any remainder will be (i) included in Net Sales and subject to royalty payments and Sales Milestone Payments to Licensor if recovered by Janssen and (ii) if recovered by Licensor, allocated [***]% to Licensor and [***]% to Janssen.

6.5 Patent Term Extensions. Janssen will have the sole discretion, after consultation with Licensor, to determine which Patents, if any, are extended with respect to any Licensed Product pursuant to the U.S. Drug Price Competition and Patent Term Restoration Act of 1984, the Supplementary Certificate of Protection of Member States of the EU and other similar measures in other jurisdictions worldwide. All filings for such extensions will be made by the Party responsible for the Prosecution of the applicable Patent. [***]. Licensor will take all reasonable actions to assist Janssen in obtaining such patent term extensions, as directed by Janssen.

6.6 Regulatory Data Protection. Janssen will have the sole right to list with the applicable Regulatory Authorities during the Term, to the extent required or permitted by applicable Laws regarding regulatory exclusivity protection, all applicable Licensed Products and associated Patents, such listings to include all so-called "Orange Book" listings under the Hatch-Waxman Act and any foreign equivalent. Licensor will take all reasonable actions to assist Janssen in obtaining all applicable regulatory exclusivity protection available.

6.7 Licensed Patent Invalidity Claims.

6.7.1 Right to Control. If a Third Party initiates a patent opposition, reexamination, or other proceeding in the US Patent Office, European Patent Office or foreign equivalent, asserting that any Licensed Patent is invalid or otherwise unenforceable (an "**Invalidity Claim**"), the Parties will treat this as Prosecution of such Licensed Patent in accordance with Section 6.3. For the avoidance of doubt, any defense of a Third Party declaratory judgment action with respect to such Licensed Patent or a counterclaim of invalidity or unenforceability of such Licensed Patent made in the context of an Infringement Action will be deemed part of such Infringement Action and will be governed by Section 6.4.

6.7.2 Cooperation and Settlement. The non-controlling Party will, [***], cooperate with the controlling Party in the preparation and formulation of a response to an Invalidity Claim, and in taking other steps reasonably necessary to respond to such Invalidity Claim. Notwithstanding anything to the contrary in this Section 6.7, neither Party will settle or compromise any Invalidity Claim without the prior written consent of the other Party, which consent will not be unreasonably withheld, provided that, if Janssen is the controlling Party, Janssen may settle an Invalidity Claim without Licensor's consent through the grant of a sublicense to the applicable Third Party consistent with the requirements of Section 5.3 and without agreeing to any terms that stipulate to the invalidity of any Licensed Patents.

6.8 Claimed Infringement. Each of the Parties will promptly notify the other in the event that any Third Party files any suit or brings any other action alleging infringement of such Third Party's Patent as a result of any Exploitation of any Licensed Compound or Licensed Product under this Agreement (any such suit or other action referred to herein as an "**Infringement Claim**"). Janssen will have the sole right to control the defense of any such Infringement Claim. Upon Janssen's request, Licensor will reasonably cooperate with Janssen, [***], in the defense of such Infringement Claim. The damages or recovery obtained by the Third Party asserting such Infringement Claim will be paid by Janssen, provided that Janssen may offset such amounts against royalties payable to Licensor in accordance with Section 4.4.3(b). Janssen will have the sole right to settle any such Infringement Claim, in Janssen's sole discretion. Notwithstanding anything to the contrary herein, the Parties' rights and obligations under this Section 6.8 will be subject to ARTICLE 9, if applicable.

6.9 Recording of Agreement. If Janssen deems it necessary or desirable for any reason to register or record this Agreement with any patent office or other Governmental Authority anywhere in the Territory, Licensor will reasonably cooperate with Janssen to execute and deliver to Janssen any documents requested by Janssen to complete such registration or recordation, [***].

6.10 Trademarks. Janssen shall have the sole and exclusive right to, in its sole discretion, select (and conduct clearance searches for) the trademarks used to Commercialize the Licensed Products in the Territory, which may vary by country or within a country (the "**Product Marks**"). As between the Parties, Janssen shall own all rights in the Product Marks and shall register and maintain, in its sole discretion [***], the Product Marks in the countries and regions in the Territory that it determines to be appropriate. Janssen shall have the sole right, in its discretion and [***], to defend and enforce the Product Marks.

ARTICLE 7
CONFIDENTIALITY AND PUBLICITY

7.1 Non-Disclosure and Non-Use.

7.1.1 During the Term and for a period of [***] thereafter, the Party (the "**Receiving Party**") receiving Confidential Information of the other Party (the "**Disclosing Party**") will: (a) maintain in confidence such Confidential Information using not less than the efforts such Receiving Party uses to maintain in confidence its own confidential or proprietary information of similar kind and value (but no less than reasonable efforts); (b) not disclose such Confidential Information to any Third Party without the prior written consent of the Disclosing Party, except for disclosures expressly permitted in Section 7.3 and Section 7.4; and (c) not use such Confidential Information for any purpose except (i) to exercise its rights and licenses and perform its obligations under this Agreement, (ii) for internal management and operations purposes or (iii) in the case of Janssen, in connection with the making of voting or investment decisions with respect to the shares of Licensor acquired by Janssen or its Affiliate (it being understood that this ARTICLE 7 does not create or imply any rights or licenses not expressly granted under this Agreement).

7.1.2 "**Confidential Information**" of a Party means all Know-How disclosed orally, visually, in writing or other form by or on behalf of such Party (or an Affiliate or representative of such Party) to the other Party (or to an Affiliate or representative of such Party) pursuant to or in connection with this Agreement, whether prior to, on or after the Execution Date.

7.2 Exceptions. The obligations in Section 7.1 will not apply to the extent of any portion of the Confidential Information that the Receiving Party can show by competent written evidence:

(a) is publicly disclosed by the Disclosing Party, either before or after it is disclosed to the Receiving Party or any of its Affiliates under this Agreement;

(b) was known to the Receiving Party or any of its Affiliates, without any obligation to the Disclosing Party to keep it confidential or any restriction on its use, before disclosure by the Disclosing Party to the Receiving Party or any of its Affiliates;

(c) is subsequently disclosed to the Receiving Party or any of its Affiliates on a non-confidential basis by a Third Party that, to the Receiving Party's knowledge after due inquiry, is not bound by a duty of confidentiality to the Disclosing Party or restriction on its use;

(d) is now, or hereafter becomes, through no act or failure to act on the part of the Receiving Party or any of its Affiliates in violation of this Agreement, generally known or available, either before or after it is disclosed to the Receiving Party or any of its Affiliates by the Disclosing Party; or

(e) is independently discovered or created by or on behalf of the Receiving Party or any of its Affiliates without the use of or reference to the Confidential Information of the Disclosing Party.

7.3 Authorized Disclosure. The Receiving Party may disclose Confidential Information of the Disclosing Party only to the extent such disclosure is reasonably necessary in the following instances:

(a) filing, prosecuting, maintaining, enforcing or defending Patents as permitted by this Agreement;

(b) as reasonably required to generate regulatory documentation and file for and obtain regulatory licenses related to any Licensed Compound or Licensed Product;

(c) prosecuting or defending litigation, including responding to a subpoena in a Third Party litigation;

(d) subject to Section 7.4, complying with applicable Law (including regulations promulgated by securities exchanges) or court or administrative orders;

(e) complying with any obligation under this Agreement;

(f) to its Affiliates, consultants, agents and advisors to the extent reasonably necessary for the Receiving Party to exercise its rights or fulfill its obligations under this Agreement, each of whom before disclosure must be bound by obligations of confidentiality and restrictions on use of such Confidential Information that are no less restrictive than the obligations in this ARTICLE 7, provided that the Receiving Party will remain responsible for any violation of such confidentiality provisions by any Person who receives Confidential Information pursuant to this Section 7.3(f);

(g) solely in the case of Janssen as the Receiving Party, to its Affiliates and existing or prospective (sub)licensees and subcontractors, to the extent reasonably necessary for Janssen to exercise its rights or fulfill its obligations under this Agreement, each of whom before disclosure must be bound by obligations of confidentiality and restrictions on use of such Confidential Information that are no less restrictive than the obligations in this ARTICLE 7, provided that Janssen will remain responsible for any violation of such confidentiality provisions by any Person who receives Confidential Information pursuant to this Section 7.3(g);

(h) solely in the case of Licensor as the Receiving Party, to its Affiliates and existing or prospective subcontractors, to the extent reasonably necessary for Licensor to (i) conduct the Phase 2 MS POC Trial, as applicable, (ii) exercise its rights under Section 5.4.2, or (iii) fulfill its obligations under this Agreement, in each case ((i) through (iii)), each of whom before disclosure must be bound by obligations of confidentiality and restrictions on use of such Confidential Information that are no less restrictive than the obligations in this ARTICLE 7, provided that Licensor will remain responsible for any violation of such confidentiality provisions by any Person who receives Confidential Information pursuant to this Section 7.3(h); or

(i) solely in the case of Licensor as the Receiving Party, to a bona fide potential Acquirer in connection with bona fide due diligence, which potential Acquirer before disclosure must be bound by obligations of confidentiality and restrictions on use of such Confidential Information that are no less restrictive than the obligations in this ARTICLE 7, provided that Licensor will remain responsible for any violation of such confidentiality provisions by any Person who receives Confidential Information pursuant to this Section 7.3(i).

If and whenever any Confidential Information is disclosed in accordance with this Section 7.3, such disclosure will not cause such information to cease to be Confidential Information for purposes of this Agreement, except to the extent that such disclosure results in a public disclosure of such information (other than by breach of this Agreement). Before a Party makes a disclosure of the other Party's Confidential Information pursuant to Section 7.3(c) or Section 7.3(d), it will, except where impracticable or not legally permitted, give [***] days' advance notice (or, if [***] days' notice is not possible under the circumstances, reasonable advance notice) to the other Party of such disclosure and will use not less than the same efforts to secure confidential treatment of such information as it would to protect its own confidential information from disclosure (but no less than reasonable efforts).

7.4 Terms of Agreement. This Agreement and all of the terms of this Agreement will be treated as Confidential Information of each Party. In addition to the disclosures permitted under Section 7.3, either Party may disclose the terms of this Agreement and other information relating to this Agreement or the transactions contemplated by this Agreement to the extent required, in the reasonable opinion of such Party's counsel, to comply with applicable Law or the rules and regulations promulgated by the United States Securities and Exchange Commission or the Nasdaq Stock Market or similar security regulatory authorities or stock market in other countries. Before a Party discloses this Agreement or any of its terms or other such information in accordance with this Section 7.4, such Party will, except where impracticable or not legally permitted, give reasonable advance notice to the other Party of such disclosure and will seek confidential treatment of portions of this Agreement or such terms or information as may be reasonably requested by the other Party in a timely manner. In addition, the Parties hereby consent to the disclosure of a copy of this Agreement to any tax authority by the other party (1) upon receipt of any legally enforceable information request by such tax authority, (2) in compliance with any legally enforceable filing requirement, or (3) in connection with a submitted transfer pricing analysis. In the event of such disclosure, the disclosing Party will make reasonable efforts to ensure that the information is maintained in confidence by the applicable tax authority, including marking any disclosed document as confidential.

7.5 Publicity.

7.5.1 Initial Press Release. Licensor may, but is not obligated to, make a public announcement of the execution of this Agreement in the form attached as Exhibit 7.5.1 to this Agreement, which will be issued at a time to be mutually agreed by the Parties no later than [***] after the Effective Date.

7.5.2 Further Publicity. Except as permitted by Section 7.3, 7.4 or 7.5.1, neither Party will issue any press release or other public statement disclosing any information relating to this Agreement without the prior written consent of the other Party, such consent not to be unreasonably withheld, conditioned or delayed; provided, however, that Janssen may issue press releases or public statements regarding the Licensed Compounds or Licensed Products or the Exploitation thereof, without Licensor's prior consent. Notwithstanding the foregoing, once information relating to this Agreement has been publicly disclosed as permitted under this Agreement, neither Party is required to obtain the other Party's consent or provide notice of further public disclosure of such information, provided that such information remains accurate and not misleading in all material respects at the time of such further public disclosure.

7.6 Prior Non-Disclosure Agreement. As of the Execution Date, the terms of this ARTICLE 7 supersede that certain Non-Disclosure Agreement, dated November 30, 2021, by and between Licensor and Janssen Research & Development, LLC. Any information disclosed pursuant to such agreement that was deemed "Confidential Information" under such agreement is deemed to be Confidential Information under this Agreement.

7.7 Equitable Relief. Given the nature of the Confidential Information and the competitive damage that may result to a Party upon unauthorized disclosure, use or transfer of its Confidential Information to any Third Party, the Parties agree that monetary damages may not be a sufficient remedy for any breach of this ARTICLE 7. In addition to all other remedies, a Party is entitled to seek specific performance and injunctive and other equitable relief as a remedy for any breach or threatened breach of this ARTICLE 7.

7.8 Publications. As between the Parties, Janssen will have the sole right to make publications or public presentations of information regarding the Licensed Compounds or Licensed Products, including any plans for, clinical trial registry postings for, or results or data from Clinical Studies of the Licensed Compounds or Licensed Products. Notwithstanding the foregoing, nothing in this Section 7.8 shall restrict Licensor from submitting for disclosure or disclosing information necessary to conduct the Phase 2 MS POC Study in accordance with Section 3.4, including plans for, or clinical trial registry postings for the Phase 2 MS POC Study; provided that Licensor will provide to Janssen drafts of such information to be submitted or disclosed at least [***] in advance of the submission or disclosure of such information and modify such submissions or disclosures in accordance with Janssen's reasonable requests.

7.9 Business Acknowledgment. Each Party understands that the other Party or its Affiliates may presently have (or in the future may initiate) research, development, commercial or other programs similar to the subject matter of this Agreement or may receive information on the same or similar subject matter from Third Parties. Each Party acknowledges that, subject to compliance with this ARTICLE 7 and, in the case of Licensor, subject to the exclusive license grant to Janssen under Section 5.1.1, the other Party or its Affiliates may research, develop or commercialize products or services similar to the subject matter of this Agreement independently or in cooperation with Third Parties.

ARTICLE 8
REPRESENTATIONS AND WARRANTIES; CERTAIN COVENANTS

8.1 Mutual Representations and Warranties. Each of Licensor and Janssen hereby represents and warrants to the other Party that, as of the Execution Date:

8.1.1 it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization;

8.1.2 it has the full corporate right, power and authority to enter into this Agreement, to perform its respective obligations under this Agreement and to grant any rights granted to the other Party under this Agreement;

8.1.3 it has taken all requisite corporate or other action to authorize the execution and delivery of this Agreement, the performance of its respective obligations under this Agreement and the grant of any rights granted to the other Party under this Agreement;

8.1.4 except for any regulatory licenses, pricing or reimbursement approvals, manufacturing approvals or similar approvals necessary for the Exploitation of the Licensed Compounds and Licensed Products, all necessary consents, approvals and authorizations of all Governmental Authorities and other Persons required to be obtained by such Party in connection with the execution, delivery and performance of this Agreement (as contemplated as of the Execution Date) and the grant of any rights granted to the other Party under this Agreement have been obtained by such Party, except for those required under the HSR Act or that would not, individually or in the aggregate, be reasonably expected to have a material adverse effect on the Exploitation of the Licensed Compounds and Licensed Products;

8.1.5 the execution and delivery of this Agreement by such Party, the performance of its respective obligations under this Agreement and the grant of any rights granted to the other Party under this Agreement do not conflict with, violate, breach or constitute a default under (i) such Party's organizational documents, (ii) any requirement of Laws applicable to such Party or (iii) any contractual obligations of such Party or any of its Affiliates existing as of the Execution Date, except, in each case ((i) through (iii)), for those that would not, individually or in the aggregate, be reasonably expected to have a material adverse effect on the Exploitation of the Licensed Compounds and Licensed Products; and

8.1.6 this Agreement has been duly executed and delivered by such Party, and is a legal and valid obligation binding upon such Party, enforceable against such Party in accordance with its terms, except as such enforcement may be limited by bankruptcy, insolvency, fraudulent conveyance, reorganization, moratorium and other Laws affecting the rights of creditors generally and general equitable principles (whether considered in a proceeding in equity or at law).

8.2 Additional Representations and Warranties of Licensor. Licensor hereby represents and warrants to Janssen that, as of the Execution Date:

8.2.1 Licensor is the sole and exclusive owner of the Licensed Technology, free and clear of any liens, charges or encumbrances;

8.2.2 Licensor has all rights necessary to grant the licenses under the Licensed Technology that it grants to Janssen under this Agreement;

8.2.3 Licensor has not previously (i) licensed, assigned, transferred, or otherwise conveyed any right, title or interest in, to or under the Licensed Technology, or (ii) otherwise granted any rights under the Licensed Technology, in each case ((i) and (ii)), to any Third Party, in any way that would conflict with or limit the scope of the licenses and rights granted to Janssen under this Agreement;

8.2.4 the Patents listed in Schedule 1.58 include all Patents that Licensor or any of its Affiliates owns or Controls as of the Execution Date that Cover, claim or disclose (a) any Licensed Compound or Licensed Product or (b) any method of use, method of treatment or method of manufacture of any Licensed Compound or Licensed Product. Schedule 1.58 lists all Existing Licensed Patents;

8.2.5 to Licensor's knowledge, the Existing Licensed Patents are subsisting and are, or, upon issuance, will be, valid and enforceable patents;

8.2.6 Licensor has (i) complied in all material respects with all applicable Laws, including all disclosure requirements and requirements to properly identify inventors, with respect to the Prosecution of the Existing Licensed Patents and (ii) timely paid all maintenance and annuity fees with respect to the Existing Licensed Patents;

8.2.7 Licensor has obtained assignments from the inventors of all inventorship rights relating to the Existing Licensed Patents, and all such assignments of inventorship rights are valid and enforceable;

8.2.8 to the knowledge of Licensor, there is no pending or threatened claim (i) asserting the invalidity, misuse, unregisterability, unenforceability or non-infringement of any of the Existing Licensed Patents, (ii) challenging Licensor's Control of the Existing Licensed Patents or making any adverse claim of ownership of the Existing Licensed Patents, (iii) disputing the inventorship of any of the Existing Licensed Patents or (iv) otherwise relating to any Licensed Technology;

8.2.9 neither Licensor nor any of its Affiliates or their respective current or former employees has misappropriated any (i) Know-How that is necessary or useful for, or actually used by or on behalf of Licensor at any time prior to the Execution Date with respect to, the Exploitation of the Licensed Compounds or Licensed Products, or (ii) Licensed Know-How, in each case ((i) and (ii)), from any Third Party, and Licensor is not aware of any claim by a Third Party that any such misappropriation has occurred;

8.2.10 Licensor and its Affiliates have taken commercially reasonable measures consistent with industry practices to protect the secrecy, confidentiality and value of Licensed Know-How that constitutes trade secrets under applicable Law and has required all employees, consultants and independent contractors to execute binding and enforceable agreements requiring all such employees, consultants and independent contractors to maintain the confidentiality of such Licensed Know-How;

8.2.11 to the knowledge of Licensor, the Exploitation of the Licensed Compounds and Licensed Products, and the use, practice or application of the Licensed Technology as contemplated under this Agreement, does not and will not (i) infringe any Patent of any Third Party existing as of the Execution Date (or, with respect to any pending patent application existing as of the Execution Date, would not infringe such patent if it were to issue without modification) or (ii) misappropriate the Know-How or other intellectual property of any Third Party. No Third Party has made any claim or threatened in writing to Licensor or its Affiliates to make any claim alleging either of the foregoing ((i) or (ii));

8.2.12 to Licensor's knowledge, no Third Party is infringing or threatening to infringe, or misappropriating or threatening to misappropriate, any of the Licensed Technology;

8.2.13 Licensor has prepared, maintained and retained all Regulatory Documentation for the Licensed Products pursuant to and in accordance in all material respects with all applicable Law, including, as applicable, GLP, and Licensor has not, to its knowledge, made any false and misleading statements in connection with submitting or obtaining such Regulatory Documentation;

8.2.14 Licensor has conducted, and has used reasonable efforts to cause its contractors and consultants to conduct, the Exploitation of the Licensed Compounds and Licensed Products in accordance in all material respects with applicable Law, professional scientific standards, accepted ethical standards, including, as applicable, GCP, GMP and GLP, and applicable experimental protocols, procedures and controls;

8.2.15 no adverse event involving human subjects has occurred in connection with any study, test, pre-clinical trial or Clinical Study of a Licensed Compound or Licensed Product;

8.2.16 all personal data and biological specimens collected from or disclosed by human subjects in Clinical Studies of the Licensed Products has been collected, used, processed and disclosed in compliance with applicable Law, and Licensor has secured all patient consents reasonably required to disclose such personal data and biological specimens to Janssen in accordance with this Agreement;

8.2.17 there is no claim, action, suit, arbitration, inquiry, audit or investigation by or before any Governmental Authority pending or, to the knowledge of Licensor, threatened against Licensor or its Affiliates, or involving any of the Licensed Compounds or Licensed Products. There is no award, stay, writ, judgement, injunction, decree or similar order of any Governmental Authority outstanding or, to Licensor's knowledge, pending, with respect to Licensor or its Affiliates, or involving any of the Licensed Compounds or Licensed Products;

8.2.18 neither Licensor nor any of its Affiliates is or has been a party to any agreement with a Governmental Authority pursuant to which such Governmental Authority provided or may provide funding for the Development of any Licensed Compound or Licensed Product. None of the Licensed Patents or Licensed Know-How are or include any invention that was conceived or first actually reduced to practice in the performance of work under a funding agreement between Licensor and the U.S. government or any other Governmental Authority;

8.2.19 Schedule 1.29 sets forth a true and complete list of all agreements whereby Licensor or any of its Affiliates has in-licensed any Licensed Technology or any other rights that are relevant to the Licensed Compounds or Licensed Products;

8.2.20 neither Licensor nor any of its Affiliates is party to any agreement with a Third Party in effect on the Execution Date pursuant to which Licensor (or its respective Affiliates) is obligated to pay any amount to such Third Party with respect to the Exploitation of Licensed Compounds or Licensed Products;

8.2.21 Licensor has provided to Janssen, prior to the Execution Date, true, complete and correct copies of all material agreements related to the Licensed Compounds or the Licensed Products;

8.2.22 Exhibits 1.56(a) and 1.56(b) collectively set forth all small molecules that have been demonstrated by or on behalf of Licensor to be M1 mAChR Antagonists prior to the Execution Date; and

8.2.23 Licensor has made available to Janssen all material information in Licensor's or its Affiliate's control relating to the Licensed Compounds or Licensed Products, including complete and correct copies of the following, if any: (a) adverse event reports; (b) clinical study reports and material study data; and (c) Regulatory Authority inspection reports, notices of adverse findings, warning letters, regulatory filings and other material correspondence with Regulatory Authorities.

8.3 Internal Janssen Program. The Parties acknowledge that Janssen currently has an [***]. Janssen hereby represents and warrants to Licensor that, as of the Execution Date, no product candidate under such program has been used or is being used in any Clinical Study. On [***] basis at the time of Janssen's [***], Janssen will provide [***].

8.4 No Debarment or Exclusion. Each Party represents and warrants that, as of the Execution Date, neither it nor any of its Affiliates, nor any of their officers, employees or agents has been debarred or is subject to debarment as authorized by Section 306 of the United States Federal Food, Drug, and Cosmetic Act or has been excluded or is subject to exclusion from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7. Neither Party nor any of its Affiliates will use in any capacity, in connection with activities under this Agreement, any Person who has been debarred pursuant to Section 306 of the United States Federal Food, Drug, and Cosmetic Act, who is the subject of a conviction described in such section, who has been excluded from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7 or who has been convicted of any crime or engaged in any conduct for which such Person could be excluded from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7.

Each Party agrees to inform the other Party in writing promptly if (a) it, any of its officers, employees or agents, or any Person who is performing activities under this Agreement is debarred, is the subject of a conviction described in Section 306 of the United States Federal Food, Drug, and Cosmetic Act, is excluded from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7 or is convicted of any crime for which such Person could be excluded from participation in Government Health Care Programs under 42 U.S.C. § 1320a-7, or (b) any action, suit, claim, investigation or legal or administrative proceeding is pending or, to the best of such Party's knowledge, is threatened, relating to the debarment, exclusion or conviction of such Party or any Person used in any capacity by such Party or any of its Affiliates in connection with activities under this Agreement.

8.5 Covenants of Licensor.

8.5.1 No Conflicting Grants. Licensor and its Affiliates will not (i) license, assign, transfer, or otherwise convey any right, title or interest in, to or under the Licensed Technology, or (ii) otherwise grant any rights under the Licensed Technology, in each case ((i) and (ii)), to any Third Party, in any way that would conflict with the licenses and rights granted to Janssen under this Agreement. For clarity, this Section 8.5.1 shall not be deemed to prevent a Change of Control.

8.5.2 Control of Licensed Technology. Licensor and its Affiliates will not enter into any arrangement with any Affiliate or Third Party, including any amendment to any In-License, that would cause Licensor to cease Controlling, or that would limit Licensor's Control of, any Patents or Know-How that, if Controlled, would constitute Licensed Technology, in each case, in any way that would conflict with the licenses and rights granted to Janssen under this Agreement. For clarity, this Section 8.5.2 shall not be deemed to prevent a Change of Control.

8.5.3 In-Licenses.

(a) During the Term, Licensor will maintain in full force and effect the In- Licenses and perform its obligations under the In-Licenses.

(b) Without the prior written consent of Janssen, Licensor will not (i) terminate any In-License or (ii) enter into any amendment to any In-License that, in the case of this clause (ii), would adversely affect Janssen or otherwise limit, restrict, impact or otherwise impair Janssen's rights, or impose additional obligations on Janssen.

(c) Licensor will not commit any acts or make any omissions that would constitute a material breach of or give rise to a termination right of another party under any In- License, provided that, upon becoming aware of any such material breach occurring and prior to any such termination right being triggered with respect to any In-License, Licensor will promptly provide notice thereof to Janssen, and Janssen will have the right, but not the obligation, to perform any such acts or remedy any such omissions on behalf of Licensor, and to offset any costs and expenses incurred with respect thereto against amounts payable to Licensor under this Agreement.

8.5.4 Clinical Data.

(a) Licensor will ensure that all data transferred to Janssen or its Affiliates in connection with this Agreement with respect to a Clinical Study will be undertaken in a manner that is in compliance with all applicable Law, regulatory guidance, relevant agreements with Third Parties and patient consent forms.

(b) Licensor's collection, generation, processing and storage of all data, results and reports of the work carried out in the course of performing activities under this Agreement with respect to a Clinical Study, will be in accordance with Schedule 8.5.4(b).

8.5.5 Health Care Compliance.

(a) "**Health Care Laws**" means Laws relating to Government Health Care Programs, Private Health Care Plans, privacy and confidentiality of patient health information and human biological materials, including, in the U.S., federal and state Laws pertaining to the federal Medicare and Medicaid programs (including the Medicaid rebate program); federal Laws pertaining to the Federal Employees Health Benefit Program, the TRICARE program and other Government Health Care Programs; federal and state Laws applicable to health care fraud and abuse, kickbacks, physician self-referral and false claims (including 42 U.S.C. § 1320a-7a, 42 U.S.C. § 1320a-7b, 42 U.S.C. § 1395nn and the federal Civil False Claims Act, 31 U.S.C. § 3729 et. seq.); the Health Insurance Portability and Accountability Act of 1996; and 45 C.F.R. Part 46, as well as similar Laws in any jurisdiction in the Territory, each as in effect and as amended from time to time.

(b) Licensor is in compliance and will continue to comply with all applicable Health Care Laws. Accordingly, no part of any consideration paid hereunder is a prohibited payment for the recommending or arranging for the referral of business or the ordering of items or services; nor are the payments intended to induce illegal referrals of business.

8.6 Compliance with Anti-Corruption Laws.

8.6.1 Notwithstanding anything to the contrary in this Agreement, each Party hereby agrees that:

(a) it will not, in the performance of this Agreement, perform any actions that are prohibited by local and other anti-corruption laws (including the provisions of the U.S. Foreign Corrupt Practices Act, collectively "**Anti-Corruption Laws**") that may be applicable to one or both Parties to this Agreement;

(b) it will not, in the performance of this Agreement, directly or indirectly, make any payment, or offer or transfer anything of value, or agree or promise to make any payment or offer or transfer anything of value, to a government official or government employee, to any political party or any candidate for political office or to any other Third Party related to the transaction with the purpose of influencing decisions related to either Party and/or its business in a manner that would violate Anti-Corruption Laws;

(c) Licensor will designate an individual within its organization to receive training from Janssen on Anti-Corruption Laws as well as applicable rules on interactions with health care professionals, as mutually agreed to by the Parties. Such designated individual will then provide such training on Anti-Corruption Laws, using applicable training materials to be provided by Janssen, on at least [***] to all persons employed by Licensor who perform any

activities under this Agreement and interact with government officials or health care professionals in the normal course of their responsibilities. Upon the Parties' mutual agreement, such training may also be provided directly by Janssen to such employees of Licensor. Licensor and Janssen will each use reasonable efforts to provide such training or training materials to any contractors or subcontractors of such Party engaged to perform activities under this Agreement where such contracted or subcontracted activities include responsibility for, directly or indirectly, interacting with Public Officials. Licensor may fulfill its obligation under the preceding sentence by requesting appropriate materials from Janssen and forwarding such materials, if any, received from Janssen to the applicable contractor or subcontractor. If Licensor is not able to obtain a contractor or subcontractor's agreement to receive such training or materials, Licensor will use reasonable efforts to facilitate an introduction of Janssen to such contractor or subcontractor and not object to reasonable efforts of Janssen to provide such training or materials to the applicable contractor or subcontractor. Any training and materials provided by Janssen does not relieve Licensor of any obligations it has independent of this Agreement and Licensor will not rely on Janssen's training and materials for any such obligations;

(d) it will, on [***] upon request by the other Party, verify in writing that to the best of such Party's knowledge, there have been no violations of Anti-Corruption Laws by such Party or persons employed by or subcontractors used by such Party in the performance of this Agreement, or will provide details of any exception to the foregoing; and

(e) it will maintain records (financial and otherwise) and supporting documentation related to the subject matter of this Agreement in order to document or verify compliance with the provisions of this Section 8.6.1, and upon request of the other Party, up to [***] and upon reasonable advance notice, will provide a Third Party auditor mutually acceptable to the Parties with access to such records for purposes of verifying compliance with the provisions of this Section 8.6.1. Acceptance of a proposed Third Party auditor may not be unreasonably withheld by either Party. It is expressly agreed that the costs related to the Third Party auditor will be fully paid by the Party requesting the audit, and that any auditing activities may not unduly interfere with the normal business operations of Party subject to such auditing activities. The audited Party may require the Third Party auditor to enter into a reasonable confidentiality agreement in connection with such an audit.

8.6.2 Licensor hereby represents and warrants to Janssen that, to its knowledge as of the Execution Date, neither Licensor nor any of its subsidiaries nor any of their Affiliates, directors, officers, employees, distributors, agents, representatives, sales intermediaries or other Third Parties acting on behalf of Licensor or any of its subsidiaries or any of their Affiliates:

(a) has taken any action in violation of any applicable Anti-Corruption Law; or

(b) has corruptly, offered, paid, given, promised to pay or give, or authorized the payment or gift of anything of value, directly or indirectly, to any Public Official (as defined in Section 8.6.4 below), for the purposes of:

(i) influencing any act or decision of any Public Official in his official capacity;

(ii) inducing such Public Official to do or omit to do any act in violation of his lawful duty;

(iii) securing any improper advantage; or

(iv) inducing such Public Official to use his or her influence with a government, governmental entity, or commercial enterprise owned or controlled by any government (including state-owned or controlled veterinary or medical facilities) in obtaining or retaining any business whatsoever.

8.6.3 Licensor hereby represents and warrants to Janssen that, as of the Execution Date, none of the officers, directors, employees of Licensor or of any of its subsidiaries acting on behalf of Licensor or any of its subsidiaries, in each case that are employed or reside outside the United States, are themselves Public Officials.

8.6.4 For purposes of this Section 8.6, "**Public Official**" means:

(a) any officer, employee or representative of any regional, federal, state, provincial, county or municipal government or government department, agency or other division;

(b) any officer, employee or representative of any commercial enterprise that is owned or controlled by a government, including any state-owned or controlled veterinary or medical facility;

(c) any officer, employee or representative of any public international organization, such as the African Union, the International Monetary Fund, the United Nations or the World Bank; and

(d) any person acting in an official capacity for any government or government entity, enterprise or organization identified above.

8.7 Specified Materials.

8.7.1 Definitions.

(a) "**Specified Phase 1 Materials**" means any Licensed Product drug product and placebo tablets Manufactured by the Prior Provider on or before the Execution Date for use in Phase 1 Clinical Studies of the Licensed Product, as further described in that certain Statement of Certification Regarding [***] Memo executed by Licensor and provided to Janssen on the Execution Date (the "**Certificate**").

(b) "**Specified Additional Materials**" means any Licensed Product drug product and placebo tablets Manufactured by the Prior Provider, other than the Specified Phase 1 Materials.

8.7.2 Representations and Warranties. Licensor hereby represents and warrants to Janssen, as of the Execution Date, that (a) to the best of Licensor's knowledge following reasonable inquiry by Licensor's personnel responsible for supply chain and quality matters, all information contained in the Certificate, including all information regarding the Specified Phase 1 Materials, is true, complete and correct in all respects and (b) none of the Specified Additional Materials has been used in any Clinical Study or otherwise dosed to any person.

8.7.3 Covenants. Licensor hereby covenants that: (a) it shall retain the Specified Additional Materials in its possession or control unless and until otherwise directed by Janssen; (b) it shall not use or permit to be used any of the Specified Additional Materials for any purpose except for non-clinical uses approved in advance in writing by Janssen; (c) it shall not use or permit to be used any Licensed Product drug product in the Phase 2 MS POC Study except the Licensed Product drug product supplied to Licensor by Janssen pursuant to Section 2.2.3(b)(iv); and (d) upon Janssen's written request, Licensor will deliver to Janssen or its designee, or destroy, at Janssen's election, all remaining Specified Additional Materials.

8.8 No Other Warranties. EXCEPT AS EXPRESSLY SET FORTH IN THIS AGREEMENT, NEITHER PARTY MAKES ANY REPRESENTATION OR EXTENDS ANY WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, TO THE OTHER PARTY, AND EACH PARTY HEREBY DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NON- INFRINGEMENT WITH RESPECT TO THE LICENSED COMPOUNDS AND LICENSED PRODUCTS. EACH PARTY HEREBY DISCLAIMS ANY REPRESENTATION OR WARRANTY THAT THE EXPLOITATION OF THE LICENSED COMPOUNDS AND LICENSED PRODUCTS PURSUANT TO THIS AGREEMENT WILL BE SUCCESSFUL OR THAT ANY PARTICULAR MILESTONE OR ANY PARTICULAR SALES LEVEL WITH RESPECT TO THE LICENSED PRODUCTS WILL BE ACHIEVED.

ARTICLE 9
INDEMNIFICATION; INSURANCE

9.1 Indemnification by Janssen. Janssen will indemnify, defend and hold harmless Licensor and its Affiliates, their respective officers, directors, employees and agents, and their respective successors, heirs and assigns and representatives (the "**Licensor Indemnitees**"), from and against any and all claims, damages, losses, suits, proceedings, liabilities or judgments, and costs incurred in connection therewith (including reasonable legal expenses, reasonable costs of litigation and reasonable attorney's fees), whether for money or equitable relief, of any kind brought by a Third Party or Governmental Authority (collectively, "**Losses**"), to the extent arising out of or relating to:

(a) the gross negligence, intentional misconduct of or violation of Law by Janssen, its Affiliates, or its sublicensees and its or their respective directors, officers, employees or agents;

(b) any breach of, or inaccuracy in, any representation or warranty made by Janssen in this Agreement, or any breach or violation of any covenant or agreement of Janssen in or pursuant to this Agreement; or

(c) the Exploitation of any Licensed Compound or Licensed Product by or for Janssen or any of its Affiliates, sublicensees, agents or contractors during the Term;

except, in each case, to the extent such Losses are caused by and attributable to the negligence of Licensor or any of the other Licensor Indemnitees or to the extent otherwise attributable to any of clause (a), (b) or (c) of Section 9.2.

9.2 Indemnification by Licensor. Licensor will indemnify, defend and hold harmless Janssen and its Affiliates and sublicensees, their respective officers, directors, employees and agents, and their respective successors, heirs and assigns and representatives (the "**Janssen Indemnitees**"), from and against any and all Losses, to the extent arising out of or relating to:

(a) the gross negligence, intentional misconduct of or violation of Law by Licensor, its Affiliates, or its sublicensees and its or their respective directors, officers, employees and agents;

(b) any breach of, or inaccuracy in, any representation or warranty made by Licensor in this Agreement, or any breach or violation of any covenant or agreement of Licensor in or pursuant to this Agreement; or

(c) the Exploitation of any Licensed Compound or Licensed Product by or for Licensor or any of its Affiliates, licensees (but excluding, during the Term, Exploitation by Janssen or any of its Affiliates, sublicensees, or agents or contractors acting on Janssen's or any of its Affiliates' or sublicensees' behalf), agents or contractors (including prior to the Execution Date or following any termination of this Agreement);

except, in each case, to the extent such Losses are caused by and attributable to the negligence of Janssen or any of the other Janssen Indemnitees or to the extent otherwise attributable to any of clause (a), (b) or (c) of Section 9.1.

9.3 Indemnification Procedures.

9.3.1 Indemnification Claims. A claim to which indemnification applies under Section 9.1 or Section 9.2 will be referred to as an "**Indemnification Claim**".

9.3.2 Notice. If any Person or Persons (collectively, the "**Indemnitee**") intends to claim indemnification under this ARTICLE 9, the Indemnitee will notify the other Party (the "**Indemnitor**") in writing promptly upon becoming aware of any claim that may be an Indemnification Claim; provided, however, that failure of the Indemnitee to give such notice will not relieve the Indemnitor of its indemnification obligation under this ARTICLE 9, except and only to the extent that the Indemnitor is actually prejudiced as a result of such failure to give notice. Each claim notice will describe in reasonable detail the basis for such claim (the "**Claim Basis**") and specify the amount or the estimated amount of Losses actually incurred or paid or estimated to be incurred or paid by the Indemnitee as a result of the Claim Basis, to the extent ascertainable.

9.3.3 Defense of Indemnification Claims. By delivering notice to the Indemnitee within [***] days after delivery of notice described in Section 9.3.2, the Indemnitor may assume and control, with the sole power to direct, the defense of the Indemnification Claim at its own expense with counsel selected by the Indemnitor and reasonably acceptable to the Indemnitee. If the Indemnitor does not assume control of the defense of the Indemnification Claim as described in this Section 9.3.3, the Indemnitee will control such defense at Indemnitor's expense (subject to Section 9.1 and Section 9.2). The Party not controlling such defense may participate therein at its own expense. The Party controlling the defense of an Indemnification Claim will keep the other Party advised of the status of such Indemnification Claim and the defense thereof and will reasonably consider recommendations made by the other Party with respect thereto. The other Party will cooperate fully with the Party controlling such defense and will make available all pertinent information under its control, which information will be subject to ARTICLE 7, and cause its employees to be available in a deposition, hearing or trial.

9.3.4 Resolution of Indemnification Claims. Neither the Indemnitor nor the Indemnitee will admit fault on behalf of the other Party without the written consent of such other Party. The Indemnitee will not settle or compromise an Indemnification Claim without the prior written consent of the Indemnitor. The Indemnitor will not settle or compromise an Indemnification Claim or consent to any judgment in respect thereof that does not include a complete and unconditional release of the Indemnitee from all liability with respect thereto or that imposes any liability or obligation on the Indemnitee for which the Indemnitee is not indemnified under this Agreement, without the prior written consent of the Indemnitee.

9.4 Insurance. Each Party will acquire and maintain, at its own expense, insurance or self- insurance, as reasonably necessary to cover its own product liability and its obligations under this Agreement. Within [***] days after written request from the other Party, each Party will furnish to such other Party a certificate of insurance evidencing such coverage.

ARTICLE 10
TERM AND TERMINATION

10.1 Term. Unless terminated earlier in accordance with this ARTICLE 10, the term of this Agreement will begin on the Execution Date and end, on a Licensed Product-by-Licensed Product and country-by-country basis, on the expiration of the Royalty Term for such Licensed Product in such country (the "**Term**"). The following provisions will become effective on the Execution Date: ARTICLE 1 (Definitions); Sections 2.2.1(a) (Existing API Inventory), 2.2.1(c) (Existing Drug Product Inventory) and 2.6 (No Assumption of Liabilities); ARTICLE 7 (Confidentiality and Publicity); ARTICLE 8 (Representations and Warranties; Certain Covenants); Sections 10.1 (Term), 10.2 (Termination for Material Breach), 10.4 (Provisions for Insolvency), 10.5.1(b), 10.5.5 (Non-Exclusive Remedy) and 10.5.6 (Survival) (with respect to any Execution Date Terms); ARTICLE 11 (HSR Compliance); ARTICLE 12 (Dispute Resolution); and ARTICLE 13 (Miscellaneous) (the "**Execution Date Terms**"). All other provisions of this Agreement will not become effective until the Effective Date. Upon the request of either Party, the Parties will memorialize the Effective Date, as defined in Section 1.25, in a written document for the Parties' records.

10.2 Termination for Material Breach. If a Party (the "**Breaching Party**") materially breaches this Agreement, and such breach is not cured in accordance with this Section 10.2, the other Party (the "**Non-breaching Party**") may terminate this Agreement in its entirety in accordance with this Section 10.2.

10.2.1 Breach Notice. The Non-breaching Party will provide a written notice to the other Party that (a) describes the alleged material breach in sufficient detail to put the Breaching Party on notice and (b) clearly states the Non-breaching Party's intent to terminate this Agreement if the alleged material breach is not cured within the Cure Period (a "**Breach Notice**").

10.2.2 Cure Period. Subject to Section 10.2.4, the Breaching Party will have [***] days after the date the Breach Notice is given (or [***] days after the date the Breach Notice is given, if the Breach Notice alleges a breach of a payment obligation under ARTICLE 4) to cure the alleged material breach (the "**Cure Period**"). If the material breach alleged in the Breach Notice is (a) not a breach of a payment obligation and (b) curable, but not reasonably curable within [***] days, the Breaching Party may seek an extension of the Cure Period if the Breaching Party provides a written plan for curing the breach to the Non-breaching Party; provided that no such extension will exceed [***] days without the consent of the Non-breaching Party. In such case, the Breaching Party will use Diligent Efforts to cure such breach in accordance with such written plan during the applicable Cure Period.

10.2.3 Expiration of Cure Period. If the alleged material breach is cured prior to the expiration of the Cure Period, this Agreement will remain in full force and effect after expiration of the Cure Period. If the alleged material breach is not cured prior to the expiration of the Cure Period, this Agreement will terminate in its entirety upon written notice from the Non-breaching Party to the Breaching Party, which notice must be provided within [***] days following expiration of the Cure Period. Any dispute regarding whether the Breaching Party has cured the alleged material breach during the Cure Period will be resolved in accordance with ARTICLE 12. The Agreement will remain in full force and effect and the Parties will continue to perform all of their respective obligations under this Agreement during the pendency of such dispute resolution procedures until the date that the dispute is finally resolved in accordance with ARTICLE 12.

10.2.4 Tolling of Cure Period. If the Breaching Party disputes in good faith the existence or materiality of a breach specified in the Breach Notice provided by the Non-breaching Party, and the Breaching Party provides written notice of such dispute to the Non-breaching Party during the Cure Period, then the Cure Period will be tolled until the date that the dispute is finally resolved in accordance with ARTICLE 12. During the pendency of such dispute, this Agreement will remain in full force and effect and the Parties will continue to perform all of their respective obligations under this Agreement. If it is finally determined in accordance with ARTICLE 12 that the Breaching Party has materially breached this Agreement, the Cure Period will be deemed to continue on the date of such determination (i.e., the remaining portion of the Cure Period as of the date the Cure Period was tolled will be deemed to commence on such date). If it is finally determined in accordance with ARTICLE 12 that the Breaching Party has not materially breached this Agreement, then the applicable Breach Notice will be null and void as of the date of such determination and this Agreement will remain in full force and effect.

10.3 Termination by Janssen Without Cause. Janssen may, upon [***] days' prior written notice to Licensor, terminate this Agreement in its entirety without cause.

10.4 Provisions for Insolvency.

10.4.1 Right to Terminate for Insolvency. Either Party may terminate this Agreement if, at any time, the other Party files in any court or agency pursuant to any statute or regulation of any state or country, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of the Party or of substantially all of its assets, or if the other Party is served with an involuntary petition against it, filed in any insolvency proceeding, and such other Party consents to the involuntary bankruptcy or such petition is not dismissed within [***] days after the filing thereof, or if the other Party will propose or be a party to any dissolution or liquidation, or if the other Party will make an assignment of substantially all of its assets for the benefit of creditors (each, an "**Insolvency Event**").

10.4.2 Section 365(n) of the Bankruptcy Code. All rights and licenses now or hereafter granted by Licensor to Janssen under or pursuant to this Agreement, including, for the avoidance of doubt, the licenses granted to Janssen pursuant to ARTICLE 5, are, for all purposes of Section 365(n) of Title 11 of the United States Code, as amended (such Title 11, the "**Bankruptcy Code**"), licenses of rights to "intellectual property" as defined in the Bankruptcy Code. Upon the occurrence of any Insolvency Event with respect to Licensor, Licensor agrees that Janssen, as licensee of such rights under this Agreement, will retain and may fully exercise all of its rights and elections under the Bankruptcy Code. Without limiting the generality of the foregoing, Licensor and Janssen intend and agree that any sale of Licensor's assets under Section 363 of the Bankruptcy Code will be subject to Janssen's rights under Section 365(n), that Janssen cannot be compelled to accept a money satisfaction of its interests in the intellectual property licensed pursuant to this Agreement, and that any such sale therefore may not be made to a purchaser "free and clear" of Janssen's rights under this Agreement and Section 365(n) without the express, contemporaneous consent of Janssen. Further, each Party agrees and acknowledges that all payments by Janssen to Licensor under this Agreement, other than Sales Milestone Payments under Section 4.3 and royalty payments under Section 4.4, do not constitute royalties within the meaning of Section 365(n) of the Bankruptcy Code or relate to licenses of intellectual property under this Agreement. Licensor will, during the Term, create and maintain current copies or, if not amenable to copying, detailed descriptions or other appropriate embodiments, to the extent feasible, of all such intellectual property. Licensor and Janssen acknowledge and agree that "embodiments" of intellectual property within the meaning of Section 365(n) include laboratory notebooks, product samples and inventory, research studies and data, INDs/CTAs, Drug Approval Applications, Regulatory Documentation and Marketing Approvals. If (i) a case under the Bankruptcy Code is commenced by or against Licensor, (ii) this Agreement is rejected as provided in the Bankruptcy Code, and (iii) Janssen elects to retain its rights under this Agreement as provided in Section 365(n) of the Bankruptcy Code, Licensor (in any capacity, including debtor- in-possession) and its successors and assigns (including a trustee) will:

(a) provide to Janssen all such intellectual property (including all embodiments thereof) held by Licensor and such successors and assigns, or otherwise available to them, immediately upon Janssen's written request. Whenever Licensor or any of its successors or assigns provides to Janssen any of the intellectual property licensed under this Agreement (or any embodiment thereof) pursuant to this Section 10.4.2, Janssen will have the right to perform Licensor's obligations under this Agreement with respect to such intellectual property, but neither such provision nor such performance by Janssen will release Licensor from liability resulting from rejection of the license or the failure to perform such obligations; and

(b) not interfere with Janssen's rights under this Agreement, or any agreement supplemental hereto, to such intellectual property (including such embodiments), including any right to obtain such intellectual property (or such embodiments) from another entity, to the extent provided in Section 365(n) of the Bankruptcy Code.

10.4.3 Other Rights. All rights, powers and remedies of Janssen provided in this Agreement are in addition to and not in substitution for any and all other rights, powers and remedies now or hereafter existing at law or in equity (including the Bankruptcy Code) in the event of the commencement of a case under the Bankruptcy Code with respect to Licensor. The Parties agree that they intend the following rights to extend to the maximum extent permitted by law, and to be enforceable under Bankruptcy Code Section 365(n):

(a) the right of access to any intellectual property (including all embodiments thereof) of Licensor, or any Third Party with whom Licensor contracts to perform an obligation of Licensor under this Agreement, and, in the case of the Third Party, which is necessary for the manufacture, use, sale, import or export of Licensed Compounds or Licensed Products; and

(b) the right to contract directly with any Third Party to complete the contracted work.

10.5 Effects of Termination or Expiration.

10.5.1 Effects of Termination. In the event of termination (but not expiration) of this Agreement for any reason, then the provisions of this Section 10.5.1 will apply on and after the effective date of termination of this Agreement (the "**Termination Effective Date**").

(a) All licenses and other rights granted to either Party pursuant to this Agreement will terminate, except (i) those expressly stated to survive termination of this Agreement or (ii) to the extent necessary to enable either Party to perform any of its obligations that survive termination.

(b) Each Party will use Diligent Efforts to return or destroy, at the Disclosing Party's election, all Confidential Information of the other Party (provided, however, that the Receiving Party may keep one copy of such Confidential Information subject to an ongoing obligation of confidentiality for archival purposes only), except for any Confidential Information that the Receiving Party has a right to use after the Termination Effective Date. The obligation to return or destroy Confidential Information does not extend to automatically generated computer back-up or archival copies generated in the ordinary course of information system's procedures. Any copies of the Confidential Information of the Disclosing Party that is retained by the Receiving Party after the Termination Effective Date will remain subject to the provisions of ARTICLE 7.

(c) Subject to Section 10.5.2, Janssen will wind down any Development, Manufacturing and Commercialization activities with respect to the Licensed Products as quickly as reasonably practicable, subject to compliance with applicable Law and ethical requirements. After the date of notice of termination (the "**Termination Notice Date**"), Janssen will have no obligation to initiate any Clinical Study or to commence any other new Development activities for the Licensed Products.

10.5.2 Right of Reversion.

(a) *Definitions*.

(i) "**Applied Janssen Know-How**" means any Know-How Controlled by Janssen as of the Termination Notice Date that is incorporated into the applicable Reverted Product, or is actually being used by Janssen to Exploit such Reverted Product, on the Termination Notice Date.

(ii) "**Applied Janssen Patents**" means any Patents Controlled by Janssen as of the Termination Notice Date that Cover the applicable Reverted Product or use thereof.

(iii) "**Applied Janssen Technology**" means the Applied Janssen Know- How and Applied Janssen Patents.

(iv) "**Reversion-Eligible Product**" means: (x) any Licensed Product that existed on the Execution Date, in the form that such Licensed Product existed on the Execution Date; and (y) any Licensed Product (other than a Combination Product) that is in a Phase 2 Study or later stage of active clinical Development or is being Commercialized by Janssen on the Termination Notice Date, in the form that such Licensed Product exists on the Termination Notice Date.

(v) "**Reversion Royalty Rate**" for a Reverted Product means: (x) [***]%, if a Phase 2 Study of such Reverted Product (other than the Phase 2 MS POC Study) had commenced before the Termination Effective Date, but no Phase 3 Study had commenced and no Drug Approval Application had been filed before the Termination Effective Date; (y) [***]%, if a Phase 3 Study of such Reverted Product had commenced before the Termination Effective Date, but no Drug Approval Application had been filed before the Termination Effective Date; or (z) [***]%, if a Drug Approval Application for such Reverted Product had been filed before the Termination Effective Date.

(b) *Reversion Election*. If Janssen terminates this Agreement under Section 10.3, or if Licensor terminates this Agreement under Section 10.2 or 10.4, Licensor may elect to continue Exploiting Reversion-Eligible Product(s) by giving written notice to Janssen within [***] days after the Termination Notice Date. The notice will indicate the Reversion-Eligible Products for which Licensor is exercising its election. Janssen shall, within [***] Business Days of Licensor's request, provide Licensor with a listing and brief identifying description of each Reversion- Eligible Product to enable Licensor to make its selection. If Licensor delivers a timely notice, the following provisions of this Section 10.5.2 will apply on and after the Termination Effective Date to each Reversion-Eligible Product indicated in such notice (each, a "**Reverted Product**").

(c) *Post-Termination License to Licensor*. For each Reverted Product, Janssen hereby grants to Licensor effective as of the Termination Effective Date, a non-exclusive, worldwide, royalty-bearing, perpetual license, with a right to sublicense through multiple tiers, under the Applied Janssen Technology with respect to such Reverted Product, to Exploit such Reverted Product in the Field in the Territory. If any Applied Janssen Technology was in-licensed or acquired from a Third Party and is subject to payment or other obligations to such Third Party, Janssen will disclose such obligations to Licensor in writing, to the extent permitted by such agreements, promptly after the Termination Notice Date. Such Applied Janssen Technology will be subject to the license granted under this Section 10.5.2(c) only if and to the extent that: (i) before the Termination Effective Date, Licensor notifies Janssen in writing that it desires to take a license to such Applied Janssen Technology; (ii) Licensor agrees in writing to be bound by any obligations, and to pay or reimburse any amounts that become due, to the applicable Third Party in connection with the grant to Licensor of or Licensor's exercise of the (sub)license to the Applied Janssen Technology; and (iii) if applicable, the Third Party consents to the (sub)licensing of the Applied Janssen Technology to Licensor under this Section 10.5.2(c). If there is more than one Reverted Product, the license granted under the Applied Janssen Technology for a particular Reverted Product applies only to that Reverted Product (i.e., the Applied Janssen Technology with respect to a particular Reverted Product is not licensed for use with any other Reverted Product).

(d) *Reversion Royalties*. Licensor will pay to Janssen royalties on Net Sales of each Reverted Product at the applicable Reversion Royalty Rate (where references to "Janssen" in the definition of Net Sales will be replaced with "Licensor"). Such royalties will be paid in accordance with the terms set forth in Section 4.4 and Section 4.5, applied *mutatis mutandis* with respect to Net Sales of Licensed Products by Licensor, provided that (i) the definition of Royalty Term in Section 4.4.2 will remain the same and (ii) the provisions of Section 4.4.3 will not apply.

(e) *Regulatory Filings*. Janssen, on behalf of itself and its Affiliates, will and, effective as of the Termination Effective Date, hereby does assign to Licensor all of Janssen's and its Affiliates' right, title and interest in, to and under all regulatory documentation and filings and regulatory approvals (including all INDs/CTAs and Drug Approval Applications and approvals thereof) for the Reverted Products (excluding any portion thereof pertaining to any product that is not a Reverted Product) ("**Regulatory Documentation and Filings**") that are owned, controlled or otherwise held by Janssen or any of its Affiliates on the Termination Effective Date. Janssen will deliver to Licensor full and complete copies of such Regulatory Documentation and Filings. If applicable Law prevents or delays the transfer of ownership of any such Regulatory Documentation and Filings to Licensor, Janssen will grant to Licensor an exclusive and irrevocable right of access and reference to such Regulatory Documentation and Filings, and will cooperate with Licensor to make the benefits of such Regulatory Documentation and Filings available to Licensor or its designee(s).

(f) *Know-How (Non-Manufacturing)*. Janssen will deliver to Licensor embodiments or copies of all Applied Janssen Know-How necessary to Exploit the Reverted Products, including any embodiments or copies of Licensed Know-How delivered to Janssen under Section 2.1.2 that relate to the Reverted Products, except that Applied Janssen Know-How relating to the Manufacture of the Reverted Products will be transferred in accordance with Section 10.5.2(h).

(g) *Inventory*. Janssen, on behalf of itself and its Affiliates, will and, effective as of the Termination Effective Date, hereby does assign to Licensor all of Janssen's and its Affiliates' right, title and interest in, to and under all inventory of the Reverted Products in the possession or control of Janssen or any of its Affiliates on the Termination Effective Date (or, if applicable, the date on which Janssen's obligation to Manufacture and supply the Reverted Products to Licensor terminates under Section 10.5.2(k)). Upon Licensor's request, Janssen will promptly deliver to Licensor Janssen's inventory of Reverted Products and Licensed Compounds with respect thereto, at Licensor's sole cost and expense.

(h) *Manufacturing Technology Transfer*. Subject to Section 10.5.2(q), Janssen will conduct a technology transfer to Licensor (or its designee) of the Manufacturing processes for the Reverted Products used by Janssen (or its Affiliates or Third Party manufacturers), to the extent necessary to enable Licensor (or its designee) to Manufacture the Reverted Products at the facility(ies) designated by Licensor. Subject to Section 10.5.2(q), as part of the technology transfer, Janssen will, and will cause its Affiliates and Third Party manufacturers to deliver to Licensor (or its designee) embodiments or copies of all Applied Janssen Know-How used in or otherwise necessary for the Manufacture of the Reverted Products, including all materials (such as critical reagents and reference standards), documents, data and information used in or necessary to Manufacture the Reverted Products and supportive Regulatory Documentation.

(i) *Clinical Studies*. If, on the date of notice of termination, any Clinical Study of a Reverted Product is ongoing (i.e., first patient has been dosed), then Licensor will notify Janssen in writing within [***] days after the date of notice of termination whether Licensor elects to have Janssen either:

(i) wind down such Clinical Study as soon as practicable, subject to compliance with ethical and legal requirements; or

(ii) transfer responsibility for and control of such Clinical Study to Licensor as soon as practicable. Janssen will use Diligent Efforts to effect such transfer, and Licensor will use Diligent Efforts to assume responsibility for and control, of such Clinical Study as promptly as practicable after the effective date of termination and, in any event, within [***] following the effective date of termination.

Until the effective date of termination, the costs of such Clinical Study will be borne by Janssen (unless Licensor has exercised its Co-Funding Option and the provisions of Section 4.8 have not been terminated in accordance with Section 4.8.2(b)(v) or Section 4.8.3, in which case they shall be shared by the Parties as Shared Development Costs). After the effective date of termination: (x) costs incurred in the winding down of such Clinical Study in accordance with clause (a) above will be borne by Janssen (unless Licensor has exercised its Co-Funding Option and the provisions of Section 4.8 have not been terminated in accordance with Section 4.8.2(b)(v) or Section 4.8.3, in which case they shall be shared by the Parties as Shared Development Costs); and (y) costs incurred to conduct any Clinical Study that Licensor elects to have transferred to Licensor in accordance with clause (b) above will be borne solely by Licensor. If Licensor fails to notify Janssen which option ((a) or (b)) it chooses within the [***]-day time period, then Licensor will be deemed to have elected to have Janssen wind down the Clinical Study.

(j) *Global Safety Database*. Upon request from Licensor, Janssen will deliver to Licensor all safety data contained in the global safety database for the Reverted Product and transfer control of and responsibility for maintaining the global safety database for the Reverted Product to Licensor.

(k) *Post-Termination Activities*.

(i) Janssen will, at Licensor's election, wind down, complete or transfer to Licensor any Research or Development activity relating to the Reverted Products that is ongoing on the Termination Effective Date. If Licensor fails to make an election prior to the Termination Effective Date, then Licensor will be deemed to have elected to have Janssen wind down the applicable activity. Janssen will bear any costs incurred in winding down any such activity (unless Licensor has exercised its Co-Funding Option and the provisions of Section 4.8 have not been terminated in accordance with Section 4.8.2(b)(v) or Section 4.8.3, in which case they shall be shared by the Parties as Shared Development Costs to the extent applicable). Licensor will reimburse Janssen for any costs incurred after the Termination Effective Date to complete or transfer any activity.

(ii) At Licensor's request, while Manufacturing activities are transitioned to Licensor in accordance with Section 10.5.2(h), Janssen will supply Licensor with the Reverted Products at a price equivalent to Janssen's Cost of Goods plus [***]% of such Cost of Goods, provided that Janssen will not be obligated to continue to supply the Reverted Products for more than [***] months after the Termination Effective Date.

(iii) If the First Commercial Sale of a Reverted Product has occurred in a country before the Termination Effective Date, then, if requested by Licensor, Janssen will continue to Commercialize such Reverted Product in such country in accordance with the terms and conditions of this Agreement, for a period requested by Licensor not to exceed [***] months from the Termination Effective Date. Janssen will be entitled to receive and retain all amounts invoiced on sales of Reverted Product during such period, subject to payment of royalties pursuant to Section 4.4.

(l) *Assignment of Third Party Agreements*. Janssen, on behalf of itself and its Affiliates, will and, effective as of the Termination Effective Date, hereby does, subject to any required Third Party consents, assign to Licensor all of Janssen's and its Affiliates' right, title and interest in, to and under any Third Party agreements solely relating to the Reverted Products, where such assignment is permitted without charge to Janssen or its Affiliates (or Licensor agrees to bear any such charge) and where Licensor shall assume all future payments due under any agreement assigned pursuant to this paragraph.

(m) *Reversion Plan*. As promptly as practicable after the Termination Notice Date, the Parties will mutually agree upon a plan for the assignments, transfers and activities described in this Section 10.5.2 (the "**Reversion Plan**"). The Parties will conduct the activities set forth in the Reversion Plan and will use Diligent Efforts to conduct such activities in accordance with the timelines set forth in the Reversion Plan (which will be consistent with the timelines set forth in this Section 10.5.2). Except as otherwise provided in this Section 10.5.2, each Party will bear its own costs of performing its obligations under this Section 10.5.2 and the Reversion Plan.

(n) *Product Marks*. At Licensor's request, Janssen will assign to Licensor, all worldwide rights in and to any and all Product Marks used to Commercialize each Reverted Product (but excluding any corporate names and logos of Janssen), including all trademark applications and registrations therefor. [***] related to the assignments, including recordal of the same. For a period of up to [***] months after the termination date, [***], (i) Janssen shall provide to Licensor the necessary information to permit Licensor to effect and perfect the transfer of the applications and registrations of the Product Marks and (ii) Janssen shall reasonably cooperate with Licensor in executing appropriate documents to effectuate the transfer or assignment for the Product Marks worldwide that are in the name of Janssen or any of its Affiliates. After such period, Janssen shall have no further obligation with respect to the matters covered by this Section.

(o) *Technical Assistance*. Subject to Section 10.5.2(q), for a period of [***] months following the Termination Effective Date, Janssen will reasonably cooperate with Licensor to provide reasonable technical assistance with respect to the Reverted Products, and to transfer to Licensor any Applied Janssen Know-How licensed to Janssen under Section 10.5.2(c), as reasonably requested by Licensor. Such cooperation will include providing Licensor with reasonable access by teleconference or in-person at Janssen's facilities to any Janssen personnel involved in the performance of the Exploitation of Reverted Products or their underlying Licensed Compounds.

(p) *Indemnification*. Licensor will indemnify, defend and hold harmless the Janssen Indemnitees from and against any and all Losses to the extent arising out of or relating to the Exploitation of the Reverted Products by or for Licensor or any of its Affiliates, (sub)licensees, agents or contractors on or after the Termination Effective Date. Any claim of indemnification by a Janssen Indemnitee under this Section will be subject to the procedures set forth in Section 9.3.

(q) *Janssen's Proprietary Manufacturing Technology*. Notwithstanding anything to the contrary in this Section 10.5.2, Janssen will have no obligation to transfer or otherwise disclose to Licensor any proprietary Know-How of Janssen or its Affiliates that is used to Manufacture the Reverted Products (or any Regulatory Documentation and Filings or Third Party agreements that contain or reflect any such Know-How). Janssen may redact from any materials disclosed to Licensor under this Section 10.5.2 (including, for the avoidance of doubt, Regulatory Documentation and Filings under Section 10.5.2(e) and Third Party agreements under Sections 10.5.2(c) and 10.5.2(l)) any information that contains or reflects any such Know-How. If Janssen does not transfer to Licensor ownership of any such Regulatory Documentation and Filings that contain or reflect any such Know-How, Janssen will grant to Licensor an exclusive and irrevocable right of access and reference to such Regulatory Documentation and Filings, and will cooperate with Licensor to make the benefits of such Regulatory Documentation and Filings available to Licensor or its designee(s).

10.5.3 Effects of Expiration. If this Agreement expires in accordance with Section 10.1, the licenses and other rights granted to Janssen under Section 5.1.1 will survive on a fully-paid, royalty-free, irrevocable and perpetual basis as set forth in Section 4.4.4.

10.5.4 Accrued Obligations. Expiration or termination of this Agreement for any reason will not release either Party from any obligation or liability which, at the time of such expiration or termination, has already accrued to the other Party or which is attributable to a period before such expiration or termination.

10.5.5 Non-Exclusive Remedy. Notwithstanding anything in this Agreement to the contrary, expiration or termination of this Agreement by a Party will be without prejudice to other remedies such Party may have at law or in equity.

10.5.6 Survival. Unless otherwise expressly provided in this Agreement, in the event of any expiration or termination of this Agreement the Sections and Articles set forth below, as well as any other Sections, Articles or defined terms referred to in such Sections or Articles or necessary to give them effect, will survive: ARTICLE 7 (Confidentiality and Publicity) (for the term set forth therein), ARTICLE 12 (Dispute Resolution), ARTICLE 13 (Miscellaneous), and Sections 2.6 (No Assumption of Liabilities), 4.4.4 (but only with respect to licenses granted upon the expiration of a Royalty Term that expires prior to the termination of the Agreement), 4.5 (Payment Terms) (with respect to any accrued payment obligations), 4.6 (Records; Audits), 4.7 (Taxes), 5.4 (Cross- Licenses), 5.5 (No Implied Licenses), 6.2.1 (Ownership of Inventions), 6.2.2 (Invention Disclosure) (with respect to Joint Patents), 6.2.3 (Treatment of Joint Patents), 8.8 (No Other Warranties), 9.1 (Indemnification by Janssen), 9.2 (Indemnification by Licensor), 9.3 (Indemnification Procedures) and 10.5 (Effects of Termination or Expiration). Furthermore, any other provisions required to interpret the Parties' surviving rights and obligations under this Agreement, including ARTICLE 1 (Definitions), will survive to the extent required. Except as otherwise provided in this ARTICLE 10, all rights and obligations of the Parties under this Agreement will terminate upon expiration or termination of this Agreement for any reason.

ARTICLE 11
HSR COMPLIANCE

11.1 HSR Clearance. As used herein, the "**HSR Clearance Date**" means such time as: (a) the Parties will have complied with all applicable requirements of the HSR Act; (b) the applicable waiting period under the HSR Act (or any extensions thereof, including any timing agreements, understandings, or commitments entered into or made to the DOJ or FTC to extend any waiting period or not consummate the Agreement) will have expired or been terminated early; (c) no judicial or administrative proceeding opposing consummation of all or any part of this Agreement will be pending; (d) no injunction (whether temporary, preliminary or permanent) or Law prohibiting consummation of the transactions contemplated by this Agreement (the "**Transactions**") will be in effect; and (e) no requirements or conditions will have been formally requested or imposed by the DOJ or FTC in connection therewith that are not reasonably and mutually satisfactory to the Parties (collectively, the "**HSR Conditions**"). In the event that the HSR Clearance Date has not occurred within [***] months following the Execution Date, then either Party may terminate this Agreement upon written notice to the other Party, in which case, all provisions of this Agreement will terminate and be of no force or effect whatsoever, except only that any liability of either Party for failing to comply with any of the Execution Date Terms will survive.

11.2 HSR Filing. On a date no earlier than [***] and no later than [***], both Parties will file their respective pre-merger notification and report forms ("**HSR Forms**") with the United States Federal Trade Commission ("**FTC**") and the United States Department of Justice ("**DOJ**") pursuant to the HSR Act in connection with the Transactions to the extent applicable. Neither Party will request early termination of the initial HSR Act waiting period in their respective HSR Form.

11.3 Cooperation.

11.3.1 Following the filing of the HSR Forms, the Parties will use commercially reasonable efforts to obtain the HSR Conditions for the consummation of the Transactions as promptly as reasonably practicable, and will keep each other apprised of the status of any communications with, and any inquiries or requests for additional information from, the FTC, the DOJ or any other party in connection with antitrust matters. The Parties will instruct their respective counsel to coordinate and cooperate with each other to facilitate and expedite the identification and resolution of any such issues and, consequently, the expiration of the applicable HSR Act waiting period. In the context of this Section 11.3, commercially reasonable efforts include counsel's undertaking: (a) to reasonably keep each other informed of communications received from and submitted to personnel of the FTC, the DOJ or any other antitrust authority relating to the Transactions; and (b) to confer with each other regarding appropriate contacts with and response to personnel of the FTC, the DOJ or any other antitrust authority and consider in good faith the views of the other Party, including all reasonable additions, deletions or changes suggested by the other Party; provided, however, that Janssen will have the principal responsibility for devising and implementing the strategy for obtaining the HSR Conditions and will lead and direct all submissions to, meetings and communications with the FTC, the DOJ or any other party in connection with antitrust matters. Janssen will be responsible for the applicable HSR Act filings fees in connection with the Transactions to the extent applicable, and each Party will be responsible for the costs and expenses of its own legal and other advice in relation to the HSR Forms submitted pursuant to the HSR Act therewith and satisfaction of the HSR Conditions.

11.3.2 Each Party will use commercially reasonable efforts to take such actions as may be required under the HSR Act or other antitrust laws in order to satisfy the conditions set forth in this ARTICLE 11. Notwithstanding anything to the contrary in this Agreement, the term "commercially reasonable efforts" does not require that either Party (a) offer, negotiate, commit to or effect, by consent decree, hold separate order, trust or otherwise, the sale, divestiture, license or other disposition of any capital stock, assets, rights, products or businesses of such Party or its Affiliates, (b) agree to any restrictions on, or changes to, the activities of such Party or its Affiliates, or (c) pay any material amount or take any other action to prevent, effect the dissolution of, vacate, or lift any decree, order, judgment, injunction, temporary restraining order, or other order in any suit or proceeding that would otherwise have the effect of preventing or delaying any of the Transactions.

ARTICLE 12
DISPUTE RESOLUTION

12.1 Exclusive Dispute Resolution Mechanism. The Parties recognize that a dispute may arise relating to this Agreement (a "**Dispute**"). Any Dispute, including, to the extent related to this Agreement, disputes that may involve the parent company, subsidiaries, or Affiliates under common control of any Party, will be resolved in accordance with this ARTICLE 12.

12.2 Referral to Executive Officers. The Parties may, by mutual written agreement, refer to the Global Therapeutic Head, Neuroscience of Janssen (or a senior executive officer of Janssen or its Affiliates designated by such officer) and the Chief Executive Officer of Licensor (the "**Executive Officers**") any Dispute. In the case of any such referral, the Executive Officers shall discuss any such matter referred to them in good faith and attempt to find a mutually satisfactory resolution to the issue. If the Executive Officers do not reach consensus regarding, or do not resolve, such a matter within [***] days after the date on which the matter is referred to the Executive Officers (unless a longer period is agreed to by the Parties), or if the Parties do not mutually agree to refer such matter to the Executive Officers, then the matter may be referred to mediation in accordance with Section 12.3 below.

12.3 Mediation.

12.3.1 With respect to any Dispute that is not resolved by the Executive Officers under Section 12.2, the Parties will first attempt in good faith to resolve such Dispute by confidential mediation in accordance with the then-current Mediation Procedure of the International Institute for Conflict Prevention and Resolution ("**CPR Mediation Procedure**") (www.cpradr.org) before initiating litigation. The CPR Mediation Procedure will control, except where it conflicts with these provisions, in which case these provisions control. The mediator will be chosen pursuant to CPR Mediation Procedure. The mediation will be held in New York, New York.

12.3.2 Either Party may initiate mediation by written notice to the other Party for any Dispute that is not resolved by the Executive Officers under Section 12.2. The Parties agree to select a mediator within [***] days of the notice, and the mediation will begin promptly after the selection. The mediation will continue until the mediator, or either Party, declares in writing, no sooner than after the conclusion of [***] of a substantive mediation conference attended on behalf of each Party by a senior business person with authority to resolve the Dispute, that the Dispute cannot be resolved by mediation. In no event, however, will mediation continue more than [***] days from the initial notice by a Party to initiate meditation unless the Parties agree in writing to extend that period.

12.3.3 Any period of limitations that would otherwise expire between the initiation of mediation and its conclusion will be extended until [***] days after the conclusion of the mediation.

12.3.4 Either Party has the right to seek from the appropriate court provisional remedies such as attachment, preliminary injunction, replevin, etc. to avoid irreparable harm, maintain the status quo, or preserve the subject matter of the Dispute.

12.4 Consent to Jurisdiction. Any Dispute arising out of or related to this Agreement, or the interpretation, application, breach, termination or validity thereof, including any claim of inducement by fraud or otherwise, that is not resolved through mediation as set forth in accordance with Section 12.3 will be resolved by litigation in the United States District Court for the Southern District of New York, or in the state court of the state of New York if the United States District Court does not have jurisdiction.

12.5 Waiver. EACH PARTY HERETO IRREVOCABLY WAIVES: (1) ITS RIGHT TO TRIAL OF ANY ISSUE BY JURY; AND (2) ANY CLAIM FOR ATTORNEY FEES, COSTS AND PREJUDGMENT INTEREST.

ARTICLE 13
MISCELLANEOUS

13.1 Assignment; Successors. Neither Party may assign this Agreement or any of its rights or obligations under this Agreement without the written consent of the other Party; provided, however, that either Party may assign this Agreement in its entirety without such consent (but with notice to the other Party after such assignment), to: (a) an Affiliate, as long as the assignee remains an Affiliate of the assigning Party, provided that the assigning Party will remain responsible for the performance of, and primarily liable under, this Agreement notwithstanding such assignment; or (b) a Third Party that acquires all or substantially all of the business or consolidated assets of such Party (whether by merger, reorganization, acquisition, sale or otherwise). No assignment of this Agreement will be valid and effective unless and until the assignee agrees in writing to be bound by the terms and conditions of this Agreement. The terms and conditions of this Agreement will be binding on and inure to the benefit of the successors and permitted assigns of the Parties. Any assignment of this Agreement not in accordance with this Section 13.1 will be null and void.

13.2 Performance by Affiliates. To the extent that this Agreement imposes obligations on Affiliates of a Party, such Party agrees to cause its Affiliates to perform such obligations. Each Party may use one or more of its Affiliates to perform its obligations and duties under this Agreement. Such Party will remain liable under this Agreement for the prompt payment and performance of all of its obligations under this Agreement.

13.3 Subcontracting. Janssen (or its Affiliate) may subcontract the performance of any activities with respect to the Licensed Compounds and Licensed Products to one or more Third Parties.

13.4 No Consequential or Punitive Damages. NEITHER PARTY HERETO NOR ANY OF ITS AFFILIATES WILL BE LIABLE FOR INDIRECT, INCIDENTAL, CONSEQUENTIAL, SPECIAL, EXEMPLARY, PUNITIVE OR MULTIPLE DAMAGES ARISING OUT OF THIS AGREEMENT OR THE EXERCISE OF ITS RIGHTS UNDER THIS AGREEMENT, OR FOR ANY LOSS OR INJURY TO A PARTY'S OR ITS AFFILIATES' PROFITS, REVENUES, BUSINESS OR GOODWILL ARISING FROM OR RELATING TO THIS AGREEMENT, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. NOTHING IN THIS SECTION 13.4 IS INTENDED TO LIMIT OR RESTRICT THE RIGHTS OR OBLIGATIONS OF EITHER PARTY WITH RESPECT TO THIRD PARTY INDEMNIFICATION CLAIMS UNDER ARTICLE 9.

13.5 Governing Law. This Agreement will be governed by and interpreted under, and any court action in accordance with Section 12.4 will apply, the laws of the State of New York excluding any conflicts of laws principles. Notwithstanding anything in this Agreement to the contrary, the interpretation and construction of any Patents will be governed in accordance with the laws of the jurisdiction in which such Patents were filed or granted, as the case may be.

13.6 Notices. All notices, requests, demands, waivers and other communications required or permitted to be given under this Agreement will be in writing and deemed given if delivered personally or sent by overnight courier to the receiving Party, in each case with a copy sent via e- mail (if an e-mail address of the party to whom the relevant communication is being made has been designated and remains a working e-mail address), at the following addresses (or at such other addresses as will be specified by like notice):

If to Licensor:

Pipeline Therapeutics, Inc.
10578 Science Center Dr STE 200, San Diego, CA 92121
Attn: Carmine Stengone, CEO
[***]

With copies to:

Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP
3570 Carmel Mountain Road, Suite 200
San Diego, California 92130
Attn: Brendan C. McCarthy, Esq.
[***]
Jeffrey C. Thacker, Esq.
[***]

If to Janssen:

Janssen Pharmaceutica NV
Turnhoutseweg 30
2340 Beerse, Belgium
Fax: +32 14 60 5403
Attention: Law Department

With a copy to:

Johnson & Johnson Law Department One Johnson & Johnson Plaza
New Brunswick, NJ 08933
Attention: General Counsel, Pharmaceuticals

All such notices, requests, demands, waivers and other communications will be deemed to have been received on the day of delivery, provided that a copy is also sent by e-mail in accordance with the first sentence of this Section 13.6.

13.7 Severability. The provisions of this Agreement will be deemed severable and the invalidity or unenforceability of any provision will not affect the validity or enforceability of the other provisions of this Agreement. If any provision of this Agreement, or the application of such provision to any Person or any circumstance, is invalid or unenforceable, (a) a suitable and equitable provision will be substituted therefor in order to carry out, so far as may be valid and enforceable, the intent and purpose of such invalid or unenforceable provision and (b) the remainder of this Agreement and the application of such provision to other Persons or circumstances will not be affected by such invalidity or unenforceability, nor will such invalidity or unenforceability affect the validity or enforceability of such provision, or the application of such provision, in any other jurisdiction.

13.8 Captions. All captions in this Agreement are for convenience only and will not be interpreted as having any substantive meaning.

13.9 Further Actions. Each Party agrees to execute, acknowledge and deliver such further instruments and to do all such other acts as may be necessary or appropriate to carry out the purposes and intent of this Agreement.

13.10 Amendment; No Waiver. No waiver, modification or amendment of any provision of this Agreement will be valid or effective unless made in writing and signed by a duly authorized officer of each Party. The failure of either Party to assert a right under this Agreement or to insist upon compliance with any term or condition of this Agreement will not constitute a waiver of that right or excuse a similar subsequent failure to perform any such term or condition.

13.11 Integration. This Agreement (including the attached Exhibits and Schedules) constitutes the entire agreement between the Parties with respect to the subject matter of this Agreement, sets forth all the covenants, promises, agreements, warranties, representations, conditions and understandings between the Parties regarding the subject matter hereof, and supersedes and terminates all previous agreements and understandings between the Parties regarding the subject matter hereof, whether written or oral, but excluding the Certificate, which will remain in full force and effect. In particular, and without limitation, this Agreement supersedes and replaces any and all term sheets relating to the transactions contemplated by this Agreement and exchanged between the Parties prior to the Execution Date. There are no covenants, promises, agreements, warranties, representations, conditions or understandings, either oral or written, between the Parties regarding the subject matter hereof other than as expressly set forth in this Agreement and the Certificate.

13.12 Independent Contractors; No Agency. Neither Party will have any responsibility for the hiring, firing or compensation of the other Party's employees or for any employee benefits. No employee or representative of a Party will have any authority to bind or obligate the other Party to this Agreement for any sum or in any manner whatsoever, or to create or impose any contractual or other liability on the other Party without said Party's written approval. For all purposes, and notwithstanding any other provision of this Agreement to the contrary, Janssen's legal relationship under this Agreement to Licensor, and Licensor's legal relationship under this Agreement to Janssen, will be that of independent contractor and will not constitute a partnership, joint venture or agency.

13.13 Force Majeure. Neither Party will be liable for delay or failure in the performance of any of its obligations under this Agreement (other than the payment of money) if such delay or failure is due to causes beyond its reasonable control, including acts of God, fires, typhoon, floods, earthquakes, tsunami, epidemics, pandemics, embargoes, acts of war (whether war be declared or not), terrorism, strikes, lockouts or other civil unrest, or omissions or delays in acting by any Governmental Authority; provided, however, that the affected Party promptly notifies the other Party and uses Diligent Efforts to avoid or remove such causes of non-performance and to mitigate the effect of such occurrence, and will continue performance with commercially reasonable dispatch whenever such causes are removed. When such circumstances arise, the Parties will negotiate in good faith any modifications of the terms of this Agreement that may be necessary or appropriate in order to arrive at an equitable solution.

13.14 Use of Names. Neither Party will publicly use the name, physical likeness, employee names or Trademarks of the other Party (or any of its Affiliates) for any purpose without the prior written consent of the other Party, such consent not to be unreasonably withheld, conditioned or delayed; provided, however, that nothing contained herein will be construed to prevent either Party from using the name of the other Party (or its Affiliates) as required by applicable Law, including for purposes of preparing necessary filings with the United States Securities and Exchange Commission or complying with its regulations, or other regulations applicable to the public sale of securities, including preparing proxy statements or prospectuses. Nothing in this Agreement will be construed as granting either Party any right or license to use any of the Trademarks of the other Party (or its Affiliates) without separate, express written permission of the owner of such Trademark. For purposes of this Section 13.14, "**Trademark**" means any word, name, symbol, color, designation, or device or any combination thereof, whether registered or unregistered, used or intended to be used in commerce and indicating the source for a product or service, including any domain name, trademark, trade dress, service mark, service name, brand mark, trade name, brand name, logo or business symbol.

13.15 Counterparts; Signatures. This Agreement may be executed in counterparts, each of which counterparts, when so executed and delivered, will be deemed to be an original, and all of which counterparts, taken together, will constitute one and the same instrument, even if both Parties have not executed the same counterpart. Signatures provided by facsimile transmission or by email of a .pdf attachment will be deemed to be original signatures.

13.16 Construction. Except as otherwise explicitly specified to the contrary, (i) references to a Section, Article, Exhibit or Schedule means a Section or Article of, or a Schedule or Exhibit to, this Agreement, including all subsections thereof, unless another agreement is specified; (ii) references to a particular statute or regulation include all rules and regulations thereunder and any successor statute, rules or regulations then in effect, in each case, including the then-current amendments thereto; (iii) words in the singular or plural form include the plural and singular form, respectively; (iv) unless the context requires a different interpretation, the word "or" has the inclusive meaning that is typically associated with the phrase "and/or"; (v) terms "including," "include(s)," "such as," and "for example" as used in this Agreement mean including the generality of any description preceding such term and will be deemed to be followed by "without limitation"; (vi) whenever this Agreement refers to a number of days, such number will refer to calendar days unless Business Days are specified; (vii) when a time period set forth in this Agreement ends on a day that is not a Business Day, the last day of such time period will be the

next Business Day; (viii) references to a particular Person include such Person's successors and assigns to the extent not prohibited by this Agreement; (ix) all words used in this Agreement will be construed to be of such gender or number as the circumstances require; (x) the words "hereof," "herein," "hereby" and derivative or similar words refer to this Agreement (including any Exhibits); (xi) the words "will" and "shall" will have the same meaning and import; (xii) neither Party or its Affiliates will be deemed to be acting "on behalf of" the other Party under this Agreement, except to the extent expressly otherwise provided; (xiii) all references in this Agreement to "$" refer to U.S. Dollars; and (xiv) reference to sublicensees include direct and indirect sublicensees.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this License Agreement to be executed by their respective duly authorized officers as of the Execution Date.

PIPELINE THERAPEUTICS, INC.

By: /s/ Carmine Stengone
Name: Carmine Stengone
Title: President and Chief Executive Officer

JANSSEN PHARMACEUTICA NV

By: /s/ TOM AELBRECHT
Name: TOM AELBRECHT
Title: Member of the Board JPNV

JANSSEN PHARMACEUTICA NV

By: /s/ JAN VAN DER GOTEN
Name: JAN VAN DER GOTEN
Title: Board member JPNV

[Signature Page to License Agreement]

LIST OF EXHIBITS AND SCHEDULES

Exhibit 1.7	Johnson & Johnson Universal Calendar
Schedule 1.15	Competitive Change of Control
Schedule 1.20	Designated Provider
Schedule 1.29	Existing Licenses
Exhibit 1.56(a)	PIPE-307
Exhibit 1.56(b)	Additional Licensed Compounds
Schedule 1.58	Licensed Patents
Schedule 1.67	[***] Arbitration [***]
Schedule 1.76	Prior Provider
Schedule 1.85	Threshold Activity Protocol
Schedule 2.1.1	Existing Regulatory Filings
Schedule 2.1.3	Ongoing Pre-Clinical Studies
Schedule 2.2.1	Existing API Inventory
Schedule 2.2.3(b)(ii)	Cost Share Quantities of Licensed Product
Schedule 2.2.3(b)(iv)	Quantities of Licensed Product for Phase 2 MS POC Study
Exhibit 3.4	Trial Synopsis
Schedule 3.4.4(d)	Existing CRO and Other Vendors
Exhibit 7.5.1	Press Release
Schedule 8.5.4(b)	Data Generation, Processing and Storage

Exhibit 1.7

Johnson & Johnson Universal Calendar
[***]

Schedule 1.15

Competitive Change of Control
[***]

Schedule 1.20

Designated Provider
[***]

Schedule 1.29

Existing Licenses
[***]

Exhibit 1.56(a)

PIPE-307
[***]

Exhibit 1.56(b)

Additional Licensed Compounds
[***]

Schedule 1.58

Licensed Patents
[***]

Schedule 1.67

[***] Arbitration [***]

[***]

Schedule 1.76

Prior Provider
[***]

Schedule 1.85

Threshold Activity Protocol
[***]

Schedule 2.1.1

Existing Regulatory Filings
[***]

Schedule 2.1.3

Ongoing Pre-Clinical Studies
[***]

Schedule 2.2.1

Existing API Inventory
[***]

Schedule 2.2.3(b)(ii)
[***]

Schedule 2.2.3(b)(iv)

Quantities of Licensed Product for Phase 2 MS POC Study
[***]

Exhibit 3.4

Trial Synopsis
[***]

Schedule 3.4.4(d)

Existing CRO and Other Vendors
[***]

Exhibit 7.5.1

Press Release
[***]

Schedule 8.5.4(b)

Data Generation, Processing and Storage
[***]

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated February 15, 2024, in the Registration Statement (Form S-1) and related Prospectus of Contineum Therapeutics, Inc. for the registration of shares of its common stock.

/s/ Ernst & Young LLP

San Diego, California
March 15, 2024

Exhibit 107

Calculation of Filing Fee Table

Form S-1
(Form Type)

Contineum Therapeutics, Inc.
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price(1)(2)	Fee Rate	Amount of Registration Fee
Fees to be Paid	Equity	Class A Common Stock, $0.001 par value per share	Rule 457(o)	—	—	$150,000,000	0.00014760	$22,140.00
	Total Offering Amounts					$150,000,000		$22,140.00
	Total Fees Previously Paid							—
	Total Fee Offsets							—
	Net Fee Due							$22,140.00

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.
(2) Includes the aggregate offering price of additional shares that the underwriters have the option to purchase, if any.