

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

**FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

UPSTREAM BIO, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

2834
(Primary Standard Industrial
Classification Code Number)

38-4187694
(I.R.S. Employer
Identification Number)

**460 Totten Pond Road, Suite 420
Waltham, MA 02451
(781) 208-2466**

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

**E. Rand Sutherland
Chief Executive Officer
Upstream Bio, Inc.
460 Totten Pond Road, Suite 420
Waltham, MA 02451
(781) 208-2466**

(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

**Gabriela Morales-Rivera
William D. Collins
Kathryn W. Clerici
Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210
(617) 570-1000**

**Copies to:
Michael Paul Gray
Chief Financial Officer
Upstream Bio, Inc.
460 Totten Pond Road, Suite 420
Waltham, MA 02451
(781) 208-2466**

**Kristin VanderPas
Dave Peinsipp
Denny Won
Charles S. Kim
Cooley LLP
3 Embarcadero Center, 20th Floor
San Francisco, CA 94111
(415) 693-2000**

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, a 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 Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated _____, 2024

Preliminary prospectus

shares



Common stock

This is an initial public offering of shares of common stock of Upstream Bio, Inc. We are offering _____ shares of our common stock to be sold in this offering. The initial public offering price is expected to be between \$ _____ and \$ _____ per share.

Prior to this offering, there has been no public market for our common stock. We intend to apply to list our common stock on The Nasdaq Global Market under the symbol "UPB," and this offering is contingent upon obtaining such approval.

We are an "emerging growth company" and a "smaller reporting company" as defined under the U.S. federal securities laws and, as such, have elected to comply with certain reduced reporting requirements.

	Per share	Total
Initial public offering price	\$ _____	\$ _____
Underwriting discounts and commissions ⁽¹⁾	\$ _____	\$ _____
Proceeds to Upstream Bio, Inc., before expenses	\$ _____	\$ _____

⁽¹⁾ See "Underwriting" for a description of the compensation payable to the underwriters.

We have granted the underwriters an option for a period of 30 days to purchase up to _____ additional shares of common stock.

Investing in our common stock involves a high degree of risk. Please see "[Risk factors](#)" beginning on page 14.

Neither the Securities and Exchange Commission nor any state securities commission 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.

The underwriters expect to deliver the shares to purchasers on or about _____, 2024.

J.P. Morgan

, 2024

TD Cowen

Piper Sandler

William Blair

Explanatory note

Pursuant to the applicable provisions of the Fixing America's Surface Transportation Act, we are omitting our unaudited financial statements as of and for the three months ended March 31, 2024 and 2023 because they relate to historical periods that we believe will not be required to be included in the prospectus at the time of the contemplated offering. We intend to amend this registration statement to include all financial information required by Regulation S-X at the date of such amendment before distributing a preliminary prospectus to investors.

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Through and including [REDACTED], 2024 (the 25th day after the date of this prospectus), all dealers effecting transactions in our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

Neither we nor the underwriters have authorized anyone to provide any information or make any representations other than those contained in 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. We and the underwriters are not making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or in any applicable free writing prospectus is current only as of the date on the front cover of this prospectus, 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.

For investors outside of the United States: We have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. Persons outside of the United States who come into

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possession of this prospectus must inform themselves about, and observe, any restrictions relating to the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

Upstream Bio, Inc. and our logo are our trademarks and are used in this prospectus. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the symbols ® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

Prospectus summary

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our consolidated financial statements and the related notes included elsewhere in this prospectus. You should also consider, among other things, the matters described under “Risk factors” and “Management’s discussion and analysis of financial condition and results of operations,” in each case appearing elsewhere in this prospectus. Unless the context otherwise requires, the terms “Upstream,” “the Company,” “we,” “us,” and “our” in this prospectus refer to Upstream Bio, Inc. and its wholly owned subsidiary, or either or both of them as the context may require.

Overview

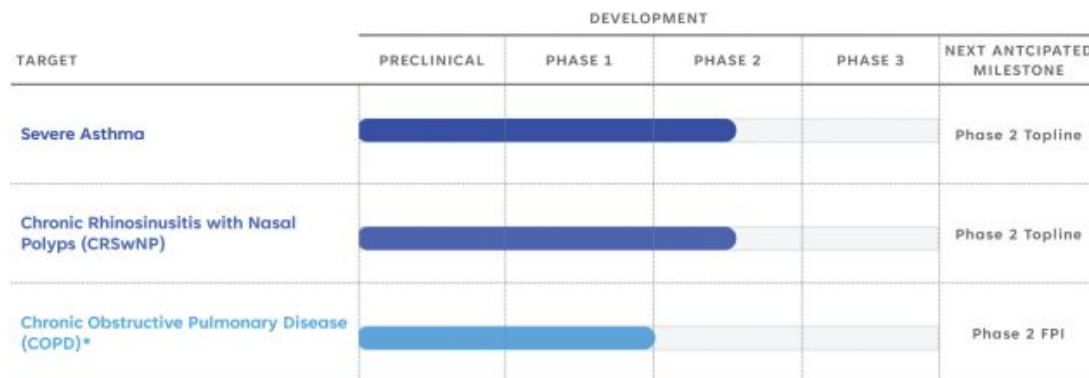
We are a clinical-stage biotechnology company developing treatments for inflammatory diseases, with an initial focus on severe respiratory disorders. We are developing verekitug, a first-in-class antagonist of the receptor for Thymic Stromal Lymphopoietin (“TSLP”), a cytokine which is a clinically validated driver of inflammatory response positioned upstream of multiple signaling cascades that affect a variety of immune mediated diseases. Preclinical and clinical data to date demonstrate verekitug’s highly potent inhibition of the TSLP receptor, which we believe will translate to a differentiated product profile, including improved clinical outcomes, substantially extended dosing intervals and the potential to treat a broad spectrum of patients. We have advanced this highly potent monoclonal antibody into separate Phase 2 trials for the treatment of severe asthma and chronic rhinosinusitis with nasal polyps (“CRSwNP”) and plan to initiate development in chronic obstructive pulmonary disease (“COPD”). Our experienced team is committed to maximizing verekitug’s unique attributes to address the substantial unmet needs for patients underserved by today’s standard of care.

There are six biologics approved for the treatment of severe asthma and three of these are also approved for CRSwNP. While no biologic is currently approved for COPD, dupilumab (marketed as Dupixent by Sanofi and Regeneron Pharmaceuticals, Inc. (“Regeneron”)), an interleukin (“IL”)-4 receptor alpha antagonist (“IL-4Ra”), is currently under review by the U.S. Food and Drug Administration (“FDA”) for a potential additional approval as an add-on maintenance treatment in certain adults with uncontrolled COPD. Total estimated biologics sales in 2023 for asthma in the United States, Europe and Japan markets were approximately \$7.5 billion. In December 2021, tezepelumab (marketed as Tezspire by Amgen Inc. (“Amgen”) and AstraZeneca PLC (“AstraZeneca”)), a monoclonal antibody targeting the TSLP ligand, not the receptor, was approved by the FDA as an add-on maintenance treatment for adult and pediatric patients with severe asthma. Tezepelumab is the first and only treatment for severe asthma without any phenotype or biomarker limitation, highlighting the benefit of blocking TSLP signaling early in the inflammatory cascade as compared to other biologics’ mechanisms of action which are further downstream. Tezepelumab is projected to reach approximately \$2.0 billion to \$3.0 billion in peak global annual sales for severe asthma alone according to Evaluate Pharma and, according to Amgen, achieved more than 20% of new to brand share of prescriptions in the United States in its first commercial year. In May 2024, Amgen and AstraZeneca reported Phase 2a proof-of-concept data for tezepelumab for the treatment of moderate to very severe COPD at the American Thoracic Society (“ATS”) International Conference, supporting advancement into Phase 3 development. These clinical data further demonstrate the potential for a TSLP targeted therapy to treat a variety of inflammatory diseases. Based on these recent COPD data, tezepelumab is projected to achieve annual peak sales of approximately \$6.0 billion to \$10.0 billion according to third-party research analyst reports. Despite the availability of existing biologics for severe respiratory disease, there remains a high unmet need that limits the utilization of these therapies, including suboptimal symptom control and frequent dosing intervals.

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Verekitug is, to our knowledge, the only monoclonal antibody currently in clinical development that targets and inhibits the TSLP receptor. In May 2024, we presented full proof-of-concept data from our multicenter, randomized, double-blind, placebo-controlled Phase 1b multiple ascending dose (“MAD”) clinical trial in asthma patients demonstrating that dosing with verekitug led to rapid and complete TSLP receptor occupancy, and reductions in fractional exhaled nitric oxide (“FeNO,” a disease-related biomarker) and blood eosinophil levels (“eos,” a disease-related biomarker) that were rapid, substantial and sustained for up to 24 weeks after the last dose. This study also demonstrated that verekitug is approximately 300-fold more potent than tezepelumab, which, combined with verekitug’s pharmacokinetic (“PK”) profile, enables an extended dosing interval of up to 24 weeks, compared to tezepelumab (four week dosing interval) and dupilumab (two week dosing interval). Furthermore, clinical data from our Phase 1b MAD trial indicate an approximately 50% greater effect on FeNO than has previously been reported for tezepelumab. Three Phase 1 clinical trials have been completed for verekitug, across a total of 120 participants, including 32 patients with asthma. In these trials, verekitug was well tolerated, demonstrated no evidence of clinically meaningful anti-drug antibodies (“ADAs”) and showed a predictable and consistent PK profile with high subcutaneous bioavailability. Based on its extended dosing interval and effect on broadly accepted disease-associated biomarkers, we believe verekitug, if approved, will be the preferred biologic for the treatment of severe asthma, CRSwNP and COPD.

Our current clinical development plan for verekitug is summarized in the pipeline chart below. Having established clinical proof-of-concept in asthma, we are currently conducting two separate multi-national, placebo-controlled, randomized Phase 2 clinical trials to investigate the efficacy of two extended dosing intervals of 12 and 24 weeks for patients with severe asthma and 12 weeks for patients with CRSwNP. These trials have been designed to serve as pivotal trials for potential future regulatory submissions. Data from these trials are expected in [redacted] for severe asthma and [redacted] for CRSwNP. We also plan to initiate development in COPD. Beyond these indications, we believe verekitug has broad potential, and we intend to leverage its unique attributes to develop it as a potential therapy for numerous TSLP-driven diseases.



*Plan to initiate activities to enable a development program in COPD

Leveraging TSLP biology to address unmet needs in severe asthma, CRSwNP and COPD

TSLP overview

Verekitug is a monoclonal antibody that targets and inhibits the TSLP receptor. TSLP is a member of a class of epithelial cytokines, also including IL-25 and IL-33, commonly referred to as alarmins. TSLP is primarily produced by epithelial cells, especially in the lung, gastrointestinal tract and skin. Dendritic cells, basophils, mast cells, keratinocytes and fibroblasts also produce TSLP with appropriate stimulation. In response to various environmental triggers, including viruses, bacteria, allergens, chemical irritants and physical injury, TSLP can initiate and amplify a wide range of innate and adaptive immune responses, including supporting epithelial barrier function, dendritic cell activation, type 2 innate lymphoid cell activation and survival, immune cell recruitment, induction of type 2 responses and regulation of B cell function. Beyond type 2 inflammation, data also support a role for TSLP in propagating non-type 2 inflammatory processes, including IL-17 production, modulation of airway structural cells and the promotion of fibrosis. As such, TSLP signaling is a central instigator of multiple downstream biologic pathways relevant to human diseases that are characterized by epithelial inflammation, including asthma, CRSwNP and COPD.

The TSLP signaling pathway is well-understood as a contributor to disease-driving proinflammatory pathways and is a clinically and commercially validated target for therapeutic development. Historically, development of biologics for severe asthma and related conditions has focused on type 2 inflammatory cytokines that are activated downstream in the TSLP signaling pathway, for instance IL-4, IL-5 and IL-13. However, in addition to its effect on type 2 inflammation, emerging evidence indicates that TSLP also impacts non-type 2 inflammation, which may result in broader downregulation of pathways relevant to the pathogenesis of multiple inflammatory diseases. We believe verekitug has the potential to be an impactful treatment in these conditions due to its high potency, extended dosing interval and ability to address unmet needs in multiple diseases characterized by TSLP-driven pathobiology.

Severe asthma

Asthma is a common respiratory disease characterized by chronic airway inflammation that is often underdiagnosed and under-treated. For some people, asthma can simply be a nuisance, for others it can interfere with daily life and potentially even be life-threatening. Of the more than 25 million Americans living with asthma, it is estimated that 5% to 10% suffer from severe asthma. Severe asthma is defined as asthma that remains uncontrolled despite optimized treatment with high-dose inhaled corticosteroids or that requires high-dosed inhaled corticosteroids to prevent symptoms from becoming uncontrolled. It is estimated that approximately 90% of people with severe asthma are eligible for biologics, but only 440,000 patients are currently treated with biologics, suggesting more than 80% of eligible patients are not being optimally treated. U.S. sales in 2023 of biologics for the treatment of severe asthma is estimated to be approximately \$6.0 billion.

These statistics show there is a large population of people living with uncontrolled symptoms of severe asthma. Key areas of unmet need for people living with severe asthma include improved control of exacerbations and symptoms and reduced treatment burden (e.g. need for frequent injections).

Chronic rhinosinusitis with nasal polyps (CRSwNP)

CRSwNP is an inflammatory disease of the upper airway, marked by chronic sinonasal inflammation and the presence of inflammatory polyps in the nasal passages and paranasal sinuses. It is estimated by Sanofi that approximately 900,000 patients in the United States and Europe suffer from CRSwNP. Nasal polyps are

associated with significant morbidity and debilitating symptoms; it is estimated that 40% to 45% of people with severe asthma also have CRSwNP and that up to 65% of people with CRSwNP also have asthma, demonstrating a strong association between the two conditions.

The current treatment options for patients with CRSwNP are corticosteroids, surgery and, more recently, biologics. Although a treatment option, surgery does not guarantee symptom relief. Even with surgery, many people with CRSwNP remain symptomatic, with the recurrence rate of CRSwNP ranging from 20% to 60% within 18 months to four years and increasing to 79% after 12 years. Recurrence is particularly common for people with severe disease, including those also living with asthma or who have undergone prior surgeries. The recent FDA approvals of biologic treatments for CRSwNP have established a well-understood regulatory pathway and route to commercialization. It is estimated that approximately 200,000 adult patients in the United States, major European markets and Japan with CRSwNP are eligible for biologics.

Despite these available treatments, the quality of life (“QoL”) studies and post-surgical recurrence rates clearly show that many people with CRSwNP have uncontrolled symptoms that are impacting their daily life and current treatments are not meeting their needs.

Chronic obstructive pulmonary disease (COPD)

Similar to asthma, COPD is a chronic inflammatory disease that obstructs airflow from the lungs. Chronic inflammation causes structural changes within the lungs, narrowing already small airways and damaging lung parenchyma which causes air sacs to lose functionality and decreases lung elasticity. It is typically caused by long-term exposure to irritants, most often cigarette smoke. People with a history of asthma are also more likely to have COPD. Historically, COPD has been considered to have elements of both type 2 and non-type 2 immune responses.

COPD is the third leading cause of death worldwide, causing approximately 3.2 million deaths in 2019. Almost 14.2 million Americans, or 6.5% of the adult population, reported they have been diagnosed with COPD, yet the actual number is likely higher given that more than half of adults with low pulmonary function were not aware that they had COPD.

Treatments for COPD are similar to those for asthma and CRSwNP, including inhaled steroids to reduce inflammation in the airways as well as bronchodilator inhalers to relax airways and improve airflow. Oxygen and surgery may also be used for people with severe COPD. There are currently no biologics approved for the treatment of COPD, although dupilumab is currently under review by the FDA with an expected decision in September 2024.

Despite available treatments, 60% of all COPD patients report some limitations in their daily activity, with 45% being unable to work and 75% complaining of difficulty climbing stairs. Given the high levels of morbidity and mortality associated with COPD, the currently available medicines are not sufficient to control symptoms or disease progression.

Verekitug: Inhibiting TSLP signaling in severe asthma, CRSwNP and COPD

Verekitug is a novel recombinant fully human immunoglobulin G1 (“IgG1”) monoclonal antibody that binds to the TSLP receptor and inhibits its signaling. In 2021, we acquired verekitug from Astellas Pharma Inc. (“Astellas”). Astellas discovered the compound and completed preclinical studies and a Phase 1 single ascending dose (“SAD”) trial, providing the early foundational work for our Phase 1b MAD trial. In those preclinical studies, verekitug potently inhibited TSLP signaling. Additionally, verekitug inhibited cytokine

production from CD4+ T cells, suggesting that it may be effective against type 2 and non-type 2 inflammation. In the Phase 1 SAD trial in healthy volunteers, verekitug demonstrated a favorable safety profile with no serious treatment-emergent adverse events, dose proportional PK and a pharmacodynamic (“PD”) effect consistent with TSLP antagonism.

We have conducted two additional clinical trials of verekitug: a Phase 1b MAD trial in patients with asthma and a Japanese ethnobridging study in healthy volunteers. Across the three clinical trials, we have data from 120 total participants, including 32 patients with asthma. In these trials, verekitug was well tolerated, had no clinically meaningful immunogenicity, showed a predictable and consistent PK profile and high subcutaneous bioavailability.

Our Phase 1b MAD clinical trial established clinical proof-of-concept for verekitug in asthma. In the trial, verekitug demonstrated rapid, substantial and sustained target engagement and maintained maximal inhibition of disease-related biomarkers in patients with asthma for up to 24 weeks after the last study dose. Results of the Phase 1b study also demonstrated that verekitug is a potent inhibitor of the TSLP receptor and has the potential for an extending dosing interval compared to currently available and in-development treatments. Importantly, the PK/PD modeling that was done based on the preclinical data aligned very closely with these early clinical results, strengthening our understanding of verekitug’s attributes and behavior in humans.

We are currently conducting two separate multi-national, placebo-controlled, randomized Phase 2 clinical trials to investigate the efficacy of two extended dosing intervals of 12 and 24 weeks for patients with severe asthma and 12 weeks for patients with CRSwNP. These trials have been designed to serve as pivotal trials for potential future regulatory submissions. Data from these trials are expected in [redacted] for severe asthma and [redacted] for CRSwNP. We also plan to initiate development in COPD. Beyond these indications, we believe verekitug has broad potential, and we intend to leverage its unique attributes to develop it as a potential therapy for other TSLP-driven diseases.

Our team and investors

We have built a team with deep experience and a strong track record of execution that has allowed us to move from company inception to Phase 2 in less than three years. Our leadership team and board of directors have significant experience developing and commercializing innovative medicines, with deep expertise in severe asthma and other respiratory diseases. E. Rand Sutherland, M.D., our Chief Executive Officer (“CEO”), has more than 25 years of business and clinical experience, having most recently served as CEO of Seeker Biologics Inc., before that as President of Translate Bio, Inc. prior to its \$3.2 billion acquisition by Sanofi, and before that in research and development and business unit roles at Sanofi developing and launching innovative medicines in immunology and rare diseases, including dupilumab. Before joining the biopharma industry, Dr. Sutherland was a Professor of Medicine at the University of Colorado and Chief of Pulmonary and Critical Care Medicine at National Jewish Health in Denver. Our Chief Medical Officer and Head of Research and Development, Aaron Deykin, M.D., leads the company’s clinical development activities and strategy. Prior to Upstream, Dr. Deykin was Senior Vice President of Clinical Sciences at Biogen, Inc. (“Biogen”) overseeing biostatistics, statistical programming, biomarkers, clinical pharmacology, epidemiology and clinical operations for Biogen’s pipeline globally. Dr. Deykin was previously Assistant Professor of Medicine at Harvard Medical School and a member of the Pulmonary and Critical Care faculty at Brigham and Women’s Hospital, where he treated patients with asthma and other advanced respiratory diseases. Michael Gray, M.B.A., our Chief Financial and Operating Officer, brings over 20 years of public and private leadership experience, including broad strategic, financial and operating experience in global life science companies. Mr. Gray previously held the same roles at Carmot Therapeutics, Inc. prior to its \$2.7 billion acquisition by Roche Group. Our board of directors consists of highly

experienced biotechnology executives and investors, including Ron Renaud, CEO of Cerevel Therapeutics Holdings, Inc., and Marcella Ruddy, M.D. of Tectonic Therapeutic, Inc. and formerly Regeneron, as our independent directors. We have also assembled a team of well-known and respected advisors and investigators to provide perspective on our data and participate in our clinical program. Since our inception, we have raised approximately \$400 million from premier biotechnology investors.

Our strategy

Our mission is to develop verekitug as a first-in-class antagonist of the TSLP receptor to benefit patients suffering from severe inflammatory diseases that are underserved by today's standard of care. The key components of our strategy to achieve this mission are:

- Leverage verekitug's unique mechanism of action to improve the treatment options for millions of patients living with severe inflammatory diseases.
- Advance our ongoing Phase 2 clinical trials for verekitug in severe asthma and CRSwNP.
- Expand the impact of verekitug through initiation of an additional development program in COPD.
- Maximize the potential of verekitug by identifying additional TSLP-driven diseases with high unmet needs that could be addressed by our product candidate.

Risk factors summary

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks include, but are not limited to, the following:

- We are a clinical-stage biopharmaceutical company with a limited operating history, which may make it difficult to evaluate our current business and predict our future success and viability. We have incurred significant financial losses since our inception and anticipate that we will continue to incur significant financial losses for the foreseeable future.
- Even if this offering is successful, we will require additional funding in order to finance operations. If we are unable to raise capital when needed, or on acceptable terms, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.
- Verekitug is our only product candidate, and we are dependent on a third party having accurately generated, collected and reported data from certain preclinical studies that were previously conducted for verekitug.
- If we are unable to advance verekitug in clinical development for one or more of the indications that we are pursuing, obtain regulatory approval and ultimately commercialize verekitug, or experience significant delays in doing so, our business will be materially harmed.
- The successful development of pharmaceutical products involves a lengthy and expensive process and is highly uncertain.
- The regulatory approval processes of the U.S. Food and Drug Administration, the European Medicines Agency, and the European Commission and other comparable foreign regulatory authorities are lengthy, time-consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for verekitug or any other potential future product candidates, our business will be substantially harmed.
- Verekitug represents a novel approach to the treatment of inflammatory diseases, which makes it difficult to predict its likelihood of success and the time and cost of development and obtaining regulatory approval.

- If our clinical trials fail to replicate positive results from earlier preclinical studies or clinical trials conducted by us or third parties, we may be unable to successfully develop, obtain regulatory approval for or commercialize verekitug or any other potential future product candidates.
- We may incur unexpected costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of verekitug or any other potential future product candidates, which could prevent us from achieving our projected development and commercialization goals in the timeframes we announce and expect, and harm our business and results of operations. Many of the factors that cause or lead to a delay in the initiation or completion of clinical trials may also lead to the denial of regulatory approval or limit market acceptance of verekitug or any other potential future product candidates.
- Verekitug or any other potential future product candidates may cause undesirable side effects or have other properties that could delay or prevent regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following regulatory approval, if obtained.
- Even if verekitug or any other potential future product candidates receive regulatory approval, such product candidate may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success, in which case we may not generate significant revenues or become profitable.
- Competitive products may reduce or eliminate the commercial opportunity for verekitug or any other potential future product candidates, if approved. If our competitors develop technologies or product candidates more rapidly than we do, or their technologies or product candidates are more effective or safer than ours, our ability to develop and successfully commercialize verekitug or any other potential future product candidates may be adversely affected.
- We expect to expand our organization, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.
- Our ability to develop verekitug or any other potential future product candidates and our future growth depends on attracting, hiring and retaining our key personnel and recruiting additional qualified personnel.
- We currently rely, and plan to rely in the future, on third parties to conduct and support our clinical trials. If they do not perform satisfactorily, we may not be able to obtain regulatory approval or commercialize verekitug or any other potential future product candidates, or such approval or commercialization may be delayed, and our business could be substantially harmed.
- Our use of third parties to manufacture verekitug or any other potential future product candidates may increase the risk that we will not have sufficient quantities of verekitug or any other potential future product candidates, raw materials, active pharmaceutical ingredients or drug products when needed or at an acceptable cost.
- Our success is largely based upon our intellectual property and proprietary technologies, and we may be unable to protect and/or enforce our intellectual property.

The summary risk factors described above should be read together with the text of the full risk factors in the section titled “Risk factors” and the other information set forth in this prospectus, including our consolidated financial statements and the related notes and condensed consolidated financial statements and the related notes, as well as in other documents that we file with the Securities and Exchange Commission. The risks summarized above or described in full elsewhere in this prospectus are not the only risks that we face.

Additional risks and uncertainties not presently known to us, or that we currently deem to be immaterial, may also materially adversely affect our business, financial condition, results of operations, and future growth prospects.

Corporate information

We were incorporated under the laws of the State of Delaware in April 2021 under the name Upstream Bio, Inc. Our principal corporate office is located at 460 Totten Pond Road, Suite 420, Waltham, MA 02451, and our telephone number is (781) 208-2466. We have one subsidiary, Upstream Bio Securities Corporation, formed in November 2021 under the laws of the Commonwealth of Massachusetts. Our website address is www.upstreambio.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Implications of being an emerging growth company and a smaller reporting company

We qualify as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, as amended (the “JOBS Act”). As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. These provisions include:

- being permitted 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;
- reduced disclosure about our executive compensation arrangements;
- not being required to hold advisory votes on executive compensation or to obtain stockholder approval of any golden parachute arrangements not previously approved;
- an exemption from the auditor attestation requirement in the assessment of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act of 2002 (the “Sarbanes-Oxley Act”); and
- an exemption from compliance with the requirements of the Public Company Accounting Oversight Board regarding the communication of critical audit matters in the auditor’s report on financial statements.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.235 billion or more; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than \$1.0 billion in non-convertible debt during the previous three years; or (iv) the date on which we are deemed to be a “large accelerated filer”, which would occur if the aggregate market value of our equity securities held by non-affiliates exceeds \$700.0 million as of the last business day of our most recently completed second fiscal quarter. We may choose to take advantage of some but not all of these exemptions. We have taken advantage of reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different from the information you receive from other public companies in which you hold stock. Additionally, 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. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption and, therefore, while we are an emerging growth company we will not be subject to new or revised accounting standards at the same time that they become applicable to other public companies that are not emerging growth companies. As a result of these elections, the information that we provide in this prospectus, including our financial statements, may be different than the information you may receive from other public companies in which you hold equity interests. In addition, it is possible that some investors will find our common stock less attractive as a result of these elections, which may result in a less active trading market for our common stock and higher volatility in our share price.

We are also a “smaller reporting company,” meaning that the market value of our shares held by non-affiliates plus the proposed aggregate amount of gross proceeds to us as a result of this offering is less than \$700.0 million and our annual revenue was less than \$100.0 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after this offering if either (i) the market value of our shares held by non-affiliates is less than \$250.0 million or (ii) our annual revenue was less than \$100.0 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than \$700.0 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company, we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

The offering

Common stock offered by us

shares.

Option to purchase additional shares

We have granted the underwriters an option for a period of 30 days to purchase up to additional shares of common stock from us at the public offering price, less underwriting discounts and commissions on the same terms as set forth in this prospectus.

Common stock to be outstanding immediately after this offering

shares (or shares if the underwriters exercise their option to purchase additional shares in full).

Use of proceeds

We estimate that the net proceeds from the sale of shares of our common stock in this offering will be approximately \$ million, or \$ million if the underwriters exercise their option to purchase additional shares in full, assuming an 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, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. The principal purposes of this offering are to create a public market for our common stock and thereby facilitate future access to the public equity markets, increase our visibility in the marketplace and obtain additional capital. We currently intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments: (i) to advance verekitug through the completion of our multi-national, placebo-controlled, randomized Phase 2 clinical trial in severe asthma, and to initiate subsequent Phase 3 clinical development; (ii) to advance verekitug through the completion of our multi-national, placebo-controlled, randomized Phase 2 clinical trial in CRSwNP, and to initiate subsequent Phase 3 clinical development; (iii) to expand the development of verekitug for the treatment of COPD, including for external clinical trial-related costs for the initiation of a Phase 2 clinical trial; (iv) for external costs associated with verekitug drug substance, drug product, process development or other manufacturing activities to support the continued development of verekitug in severe asthma, CRSwNP, COPD and potential future additional indications; and (v) the remainder for additional continued research and development efforts relating to verekitug, including expansion into potential additional indications, as well as for working capital and other general corporate purposes. See "Use of proceeds" for additional information.

Risk factors

You should carefully read the "Risk factors" section of this prospectus for a discussion of factors that you should consider before deciding to invest in our common stock.

Proposed Nasdaq Global Market symbol “UPB”

The number of shares of our common stock to be outstanding after this offering is based on _____ shares of common stock outstanding as of June 30, 2024, after giving effect to the automatic conversion of all outstanding shares of our redeemable convertible preferred stock as of June 30, 2024 into the aggregate of 31,764,693 shares of common stock immediately prior to the completion of this offering, and excludes:

- _____ shares of common stock issuable upon the exercise of outstanding stock options as of June 30, 2024 under our 2021 Stock Option and Grant Plan (“2021 Plan”), with a weighted-average exercise price of \$ _____ per share;
- _____ shares of common stock reserved for future issuance as of June 30, 2024 under the 2021 Plan, which will cease to be available for issuance at the time that our 2024 Stock Option and Incentive Plan (“2024 Plan”) becomes effective (which includes options to purchase an aggregate of _____ shares of our common stock, at a weighted-average exercise price of \$ _____ per share, that were granted subsequent to June 30, 2024);
- _____ shares of our common stock reserved for future issuance under our 2024 Plan, which will become effective on the date immediately prior to the effectiveness of the registration statement of which this prospectus forms a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan and any shares underlying outstanding stock awards granted under the 2021 Plan that expire or are repurchased, forfeited, cancelled, or withheld; and
- _____ shares of common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan (“ESPP”), which will become effective on the date immediately prior to the effectiveness of the registration statement of which this prospectus forms a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the ESPP.

Unless otherwise indicated, all information in this prospectus reflects or assumes the following:

- the automatic conversion of all 31,764,693 outstanding shares of our Series A and Series B redeemable convertible preferred stock in the aggregate into the equivalent number of shares of common stock immediately prior to the completion of this offering;
- no exercise of the outstanding options described above;
- no exercise by the underwriters of their option to purchase up to _____ additional shares of common stock in this offering;
- a one-for-_____ reverse stock split of our common stock, which was effected on _____, 2024 and a corresponding adjustment to the ratio at which our redeemable convertible preferred stock will convert into common stock; and
- the filing and effectiveness of our third amended and restated certificate of incorporation to be in effect immediately prior to the completion of this offering and second amended and restated bylaws to be in effect upon effectiveness of the registration statement of which this prospectus forms a part.

Summary consolidated financial data

The following table sets forth our summary consolidated statements of operations for the years ended December 31, 2023 and 2022 and for the six months ended June 30, 2024 and 2023 and our summary condensed consolidated balance sheet data as of June 30, 2024. The summary consolidated statements of operations data for the years ended December 31, 2023 and 2022 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary condensed consolidated statements of operations data for the six months ended June 30, 2024 and 2023 and summary condensed consolidated balance sheet data as of June 30, 2024 have been derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that should be expected in any future periods, and our interim results are not necessarily indicative of the results that may be expected for the full year or any other period. Our unaudited interim financial statements were prepared on the same basis as our audited financial statements and include, in the opinion of management, all adjustments, consisting of normal recurring adjustments, that are necessary for the fair statement of the financial information set forth in those financial statements. You should read the following summary financial data together with "Management's discussion and analysis of financial condition and results of operations" and our consolidated financial statements and the related notes included elsewhere in this prospectus. The summary consolidated financial data included in this section are not intended to replace the consolidated financial statements and are qualified in their entirety by our consolidated financial statements and the related notes included elsewhere in this prospectus.

(in thousands, except per share amounts)	Year ended December 31,		Six months ended June 30,	
	2023	2022	2024	2023
Consolidated statement of operations data:				
Collaboration revenue—related party	\$ 2,380	\$ 1,212	\$	\$
Operating expenses:				
Research and development	31,799	18,657		
General and administrative	10,695	6,464		
Total operating expenses	42,494	25,121		
Loss from operations	(40,114)	(23,909)		
Other income (expense):				
Change in fair value of preferred stock tranche right liabilities	15,527	(77)		
Interest income	4,165	205		
Other expense, net	(115)	(87)		
Total other income, net	19,577	41		
Net loss	\$ (20,537)	\$ (23,868)	\$	\$
Redeemable convertible preferred stock cumulative dividends	(17,718)	—		
Net loss attributable to common stockholders	\$ (38,255)	\$ (23,868)	\$	\$
Net loss per share attributable to common stockholders, basic and diluted ⁽¹⁾	\$ (13.59)	\$ (8.52)	\$	\$
Weighted-average common shares outstanding, basic and diluted	2,815,786	2,800,000		
Pro forma net loss per share attributable to common stockholders, basic and diluted (unaudited) ⁽²⁾	\$ (0.59)		\$	
Pro forma weighted average common shares outstanding, basic and diluted (unaudited)	34,580,479			

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- (1) See Note 12—"Net loss per share" to our audited consolidated financial statements and Note —"Net loss per share" to our unaudited condensed consolidated financial statements, included elsewhere in this prospectus for details on the calculation of basic and diluted net loss per share attributable to common stockholders.
- (2) Pro forma basic and diluted net loss per share attributable to common stockholders has been prepared to give effect to adjustments to our capital structure arising in connection with the completion of this offering and is calculated by dividing the pro forma net loss attributable to common stockholders by the pro forma weighted-average common shares outstanding for the period. The pro forma net loss attributable to common stockholders used in the calculation of pro forma basic and diluted net loss per share attributable to common stockholders adjusts net loss attributable to common stockholders to remove the cumulative dividends on redeemable convertible preferred stock for the year ended December 31, 2023 and six months ended June 30, 2024. Pro forma weighted-average common shares outstanding is computed by adjusting the weighted-average common shares outstanding to give pro forma effect to the automatic conversion of all shares of our redeemable convertible preferred stock outstanding as of June 30, 2024 into shares of common stock as if such conversion had occurred on January 1, 2023. Pro forma basic and diluted net loss per share attributable to common stockholders does not include the effect of the shares expected to be sold in this offering.

(in thousands)	As of June 30, 2024		
	Actual	Pro forma ⁽¹⁾	Pro forma as adjusted ⁽²⁾
Consolidated balance sheet data:			
Cash, cash equivalents and short-term investments	\$	\$	\$
Working capital ⁽³⁾			
Total assets			
Redeemable convertible preferred stock			
Total stockholders' (deficit) equity			

- (1) Gives effect to (i) the automatic conversion of all 31,764,693 outstanding shares of our Series A and Series B redeemable convertible preferred stock in the aggregate into the equivalent number of shares of our common stock immediately prior to the completion of this offering, and (ii) the filing and effectiveness of our third amended and restated certificate of incorporation, which will occur immediately prior to the completion of this offering.
- (2) Gives effect to (i) the pro forma adjustments set forth in footnote (1) above and (ii) the issuance and sale of shares of our common stock in this offering at an 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, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Pro forma as adjusted balance sheet data is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. Each \$1.00 increase or decrease in 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, would increase or decrease, as applicable, the pro forma as adjusted amount of each of cash, cash equivalents and short-term investments, working capital, total assets and total stockholders' (deficit) equity by approximately \$ million, assuming that 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 commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease, as applicable, the pro forma as adjusted amount of each of cash, cash equivalents and short-term investments, working capital, total assets and total stockholders' (deficit) equity by approximately \$ million, assuming no change in the assumed initial public offering price per share, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.
- (3) We define working capital as current assets less current liabilities. See our condensed consolidated financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

Risk factors

Investing in our common stock involves a high degree of risk. You should consider and read carefully all of the risks and uncertainties described below, as well as the other information in this prospectus, including our consolidated financial statements and the related notes appearing elsewhere in this prospectus and “Management’s discussion and analysis of financial condition and results of operations” before deciding whether to invest in our common stock. The risks described below are not the only ones facing us. The following risks or additional risks and uncertainties not presently known to us or that we currently believe to be immaterial could materially and adversely affect our business, financial condition, results of operations and growth prospects. In such an event, the trading price of our common stock could decline, and you may lose all or part of your investment.

This prospectus also contains forward-looking statements and estimates that involve risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. Our actual results could differ materially from those anticipated in our forward-looking statements as a result of specific factors, including the risks and uncertainties described below.

Risks related to our limited operating history, financial condition and need for additional capital

We are a clinical-stage biopharmaceutical company with a limited operating history, which may make it difficult to evaluate our current business and predict our future success and viability. We have incurred significant financial losses since our inception and anticipate that we will continue to incur significant financial losses for the foreseeable future.

We are a clinical-stage biopharmaceutical company with a limited operating history. We were formed in April 2021 and our operations to date have been limited to pre-commercial activities. We have not yet demonstrated an ability to generate revenues, obtain regulatory approvals, manufacture any product on a commercial scale or arrange for a third party to do so on our behalf or conduct sales and marketing activities necessary for successful product commercialization. Our limited operating history as a company makes any assessment of our future success and viability subject to significant uncertainty. We will encounter risks and difficulties frequently experienced by early-stage biopharmaceutical companies in rapidly evolving fields, and we have not yet demonstrated an ability to successfully overcome such risks and difficulties. If we do not address these risks and difficulties successfully, our business will suffer.

We have no products approved for commercial sale and have not generated any revenue from product sales to date. Verekitug is currently our only product candidate. We will continue to incur significant research and development and other expenses related to our preclinical and clinical development of verekitug and ongoing operations. As a result, we are not profitable and have incurred losses in each period since our inception. Net losses and negative cash flows have had, and will continue to have, an adverse effect on our stockholders’ deficit and working capital. Our net losses totaled \$20.5 million and \$23.9 million for the years ended December 31, 2023 and 2022, respectively, and \$ and \$ for the six months ended June 30, 2024 and 2023. As of June 30, 2024, we had an accumulated deficit of \$. We expect to continue to incur significant losses for the foreseeable future, and we expect these losses to increase as we continue our research and development of, and seek regulatory approvals for, verekitug in multiple indications.

We anticipate that our expenses will increase substantially if, and as, we:

- advance verekitug through clinical development;
- seek regulatory approvals for verekitug in indications for which clinical trials are successful;

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- hire additional clinical, quality control, medical, scientific and other technical personnel to support the ongoing development of verekitug;
- experience an increase in headcount as we expand our research and development organization and market development and pre-commercial planning activities;
- undertake any pre-commercial or commercial activities required to establish sales, marketing and distribution capabilities;
- seek to identify, acquire and develop additional product candidates, including through business development efforts to invest in or in-license other technologies or product candidates;
- maintain, expand and protect our intellectual property portfolio;
- make milestone, royalty or other payments due under our license agreements and any potential future in-license or collaboration agreements; and
- make milestone, royalty, interest or other payments due under any potential future financing or other arrangements with third parties.

Biopharmaceutical product development entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate efficacy or an acceptable safety profile, gain regulatory approval, secure market access and reimbursement and become commercially viable, and therefore any investment in us is highly speculative. Accordingly, before making an investment in us, you should consider our prospects, factoring in the costs, uncertainties, delays and difficulties frequently encountered by companies in clinical development, especially clinical-stage biopharmaceutical companies such as ours. Any predictions you make about our future success or viability may not be as accurate as they would otherwise be if we had a longer operating history or a history of successfully developing and commercializing pharmaceutical products. We may encounter unforeseen expenses, difficulties, complications, delays and other known or unknown factors in achieving our business objectives.

Additionally, our expenses could increase beyond our expectations if we are required by the U.S. Food and Drug Administration ("FDA"), the European Medicines Agency ("EMA"), the European Commission, or other comparable foreign regulatory authorities to perform clinical trials in addition to those that we currently expect, or if there are any delays in establishing appropriate manufacturing arrangements for or in completing our clinical trials or the development of verekitug.

Even if this offering is successful, we will require additional funding in order to finance operations. If we are unable to raise capital when needed, or on acceptable terms, we could be forced to delay, reduce or eliminate our product development programs or commercialization efforts.

Developing biopharmaceutical products, including conducting preclinical studies and clinical trials, is a time-consuming, expensive and uncertain process that takes years to complete. We expect our expenses to continue to increase in connection with our ongoing activities, particularly as we conduct clinical trials of, and seek regulatory and marketing approval for, verekitug in multiple indications. Even if verekitug or our potential future product candidates are approved for commercial sale, we anticipate incurring significant costs associated with commercializing any approved product candidate. To date, we have funded our operations principally through private financings. We expect our expenses to increase in connection with our ongoing activities, particularly as we continue the clinical development of verekitug, and commence additional clinical trials.

As of December 31, 2023 and June 30, 2024, we had cash, cash equivalents and short-term investments in the amount of \$109.8 million and \$ million, respectively. Based upon our current operating plan, we believe

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that the net proceeds from this offering together with our existing cash, cash equivalents and short-term investments will enable us to fund our operating expenses and capital expenditure requirements into . We have based this estimate on assumptions that may prove to be wrong, and we could expend our available capital resources sooner than we expect. We may also raise additional financing on an opportunistic basis in the future. For example, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. Attempting to secure additional financing may divert our management from our day-to-day activities, which may adversely affect our ability to develop verekitug. Our future capital requirements will depend on many factors, including but not limited to:

- the scope, timing, progress, costs and results of the ongoing development of verekitug as well as for potential discovery, preclinical development and clinical trials for other potential future product candidates;
- the number of clinical trials required for regulatory approval of verekitug or our potential future product candidates;
- the costs, timing and outcome of regulatory review of verekitug or our potential future product candidates;
- the costs associated with acquiring or licensing additional product candidates, technologies or assets, including the timing and amount of any milestones, royalties or other payments due in connection with our acquisitions and licenses;
- the cost of manufacturing clinical and commercial supplies of verekitug or our potential future product candidates;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims, including any claims by third parties that we are infringing upon their intellectual property rights;
- the effectiveness of our approach to identifying target patient populations;
- our ability to maintain existing, and establish new, strategic collaborations or other arrangements and the financial terms of any such agreements, including the timing and amount of any future milestone, royalty or other payments due under any such agreement;
- the costs and timing of future commercialization activities, including manufacturing, marketing, sales and distribution, for verekitug or any other potential future product candidates for which we receive marketing approval;
- the revenue, if any, received from commercial sales of verekitug or any other potential future product candidates for which we receive marketing approval;
- expenses to attract, hire and retain skilled personnel;
- the costs of operating as a public company;
- our ability to establish a commercially viable pricing structure and obtain approval for coverage and adequate reimbursement from third-party and government payors;
- the effect of macroeconomic trends including inflation and rising interest rates;
- addressing any potential supply chain interruptions or delays;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in business, products and technologies.

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Because of the numerous risks and uncertainties associated with research and development of product candidates, we are unable to predict the timing or amount of our working capital requirements. In addition, if we obtain regulatory approval for verekitug or any other potential future product candidates, we expect to incur significant commercialization expenses related to product manufacturing, marketing, sales and distribution which make it difficult to predict when or if we will be able to achieve or maintain profitability. Furthermore, upon the completion of this offering, we expect to incur additional costs associated with operating as a public company. Accordingly, we will need to obtain substantial additional funding in order to support our continuing operations. Our ability to raise additional funds will depend on financial, economic, political and market conditions and other factors, over which we may have no or limited control. Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. If we fail to obtain necessary capital when needed on acceptable terms, or at all, it could force us to delay, limit, reduce or terminate our product development programs, future commercialization efforts or other operations.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to verekitug or any other potential future product candidates.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our operations with our existing cash, cash equivalents and short-term investments, the net proceeds from this offering, any future equity or debt financings and upfront and milestone and royalties payments, if any, received under any future licenses or collaborations. If we raise additional capital through the sale of equity or convertible debt securities, or issue any equity or convertible debt securities in connection with a collaboration agreement or other contractual arrangement, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a holder of our common stock. In addition, the possibility of such issuance may cause the market price of our common stock to decline. Debt financing, if available, may result in increased fixed payment obligations and involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures, declaring dividends or acquiring, selling or licensing intellectual property rights or assets, which could adversely impact our ability to conduct our business.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our intellectual property, technologies, future revenue streams or verekitug or any other potential future product candidates or grant licenses on terms that may not be favorable to us. We could also be required to seek funds through arrangements with collaborators or others at an earlier stage than otherwise would be desirable. Any of these occurrences may have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Risks related to our business

Verekitug is our only product candidate, and we are dependent on a third party having accurately generated, collected and reported data from certain preclinical studies that were previously conducted for verekitug.

We currently have a single product candidate, verekitug, which is in Phase 2 clinical development for the treatment of severe asthma and chronic rhinosinusitis with nasal polyps ("CRSwNP"), and we also plan to initiate development in chronic obstructive pulmonary disease ("COPD"). Our business presently depends entirely on our ability to successfully develop, obtain regulatory approval for, and commercialize verekitug for one or more of the indications that we are pursuing in a timely manner. This may make an investment in our company riskier than similar companies that have multiple product candidates in active development and may be able to better sustain the delay or failure of a lead product candidate.

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In addition, our assumptions about verekitug's development potential are partially based on data generated from preclinical studies conducted by Astellas Pharma, Inc. ("Astellas"), which sold the rights to verekitug to us pursuant to an asset purchase agreement in October 2021. We are dependent on Astellas having conducted its research and development in accordance with the applicable protocols, informed consent, legal and regulatory requirements, and scientific standards; having accurately reported the results of all preclinical studies conducted with respect to verekitug and having correctly collected the data from these studies. If these activities were not compliant, accurate or correct, the clinical development, regulatory approval or commercialization of verekitug will be adversely affected. Furthermore, we may observe materially and adversely different results as we continue to conduct our clinical trials. If we are unable to develop, receive marketing approval for and successfully commercialize verekitug, or if we experience delays as a result of any of the above factors or otherwise, our business would be significantly harmed.

If we are unable to advance verekitug in clinical development for one or more of the indications that we are pursuing, obtain regulatory approval and ultimately commercialize verekitug, or experience significant delays in doing so, our business will be materially harmed.

To date, as an organization, we have not completed the development of any product candidate, and verekitug remains in clinical development. Our future success and ability to generate revenue is dependent on our ability to successfully develop, obtain regulatory approval for and commercialize verekitug or any other potential future product candidates. Verekitug and any other potential future product candidates will require substantial additional investment for clinical development, regulatory review and approval in one or more jurisdictions. If verekitug or any other potential future product candidates encounter safety or efficacy problems, development delays or regulatory issues or other problems, our development plans and business would be materially harmed.

We may not have the financial resources to continue development of verekitug or any other potential future product candidates if we experience any issues that delay or prevent regulatory approval of, or our ability to commercialize, verekitug or any potential future product candidates, including:

- our inability to demonstrate to the satisfaction of the FDA, EMA, the European Commission, or other comparable foreign regulatory authorities that verekitug is, or any other potential future product candidates are, safe and effective;
- insufficiency of our financial and other resources to complete the necessary clinical trials and preclinical studies;
- negative or inconclusive results from our clinical trials, preclinical studies or the clinical trials of others for product candidates similar to ours, leading to a decision or requirement to conduct additional clinical trials or preclinical studies or abandon a program;
- product-related adverse events experienced by subjects in our clinical trials, or by individuals using drugs or therapeutic biologics similar to verekitug or any other potential future product candidates;
- delays in submitting an Investigational New Drug ("IND") application or other regulatory submission to the FDA, EMA, or other comparable foreign regulatory authorities, or delays or failure in obtaining the necessary approvals from regulators to commence a clinical trial or a suspension, termination, or hold, of a clinical trial once commenced;
- conditions imposed by the FDA, the competent authorities of individual EU Member States or other comparable foreign regulatory authorities regarding the scope or design of our clinical trials;

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- poor performance of verekitug or any other potential future product candidates during clinical trials;
- better than expected performance of control arms, such as placebo groups, which could lead to negative or inconclusive results from our clinical trials;
- delays in enrolling subjects in our clinical trials;
- high drop-out rates of subjects from our clinical trials;
- inadequate supply or quality of verekitug or any other potential future product candidates or other materials necessary for the conduct of our clinical trials;
- higher than anticipated clinical trial or manufacturing costs;
- unfavorable FDA, EMA, competent authorities of individual EU Member States, or other comparable foreign regulatory authority inspection and review of our clinical trial sites;
- failure of our third-party contractors or investigators to comply with regulatory requirements or the clinical trial protocol or otherwise meet their contractual obligations in a timely manner, or at all;
- delays and changes in regulatory requirements, policies and guidelines, including the imposition of additional regulatory oversight around clinical testing generally or with respect to our therapies in particular; or
- varying interpretations of data by the FDA, EMA, the European Commission, and other comparable foreign regulatory authorities.

We are currently conducting, and may in the future conduct, clinical trials for verekitug or any other potential future product candidates outside the United States, and the FDA and comparable foreign regulatory authorities may not accept data from such trials.

We are currently conducting, and may in the future conduct, clinical trials for verekitug or any other potential future product candidates outside the United States, and the FDA and comparable foreign regulatory authorities may not accept data from such trials. We are currently conducting clinical trials outside the United States, including but not limited to in Canada, Japan, South Korea, South Africa, the United Kingdom and countries in South America and the European Union, and we expect to continue to conduct trials internationally in the future. The acceptance of data from clinical trials conducted outside the United States or another jurisdiction by the FDA or any other comparable foreign regulatory authorities may be subject to certain conditions or may not be accepted at all. 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 the data are applicable to the U.S. population and U.S. medical practice, the trials were performed by clinical investigators of recognized competence and pursuant to Good Clinical Practice (“GCP”) regulations, and the FDA can validate the data through on-site inspections or other appropriate means. 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, including in relation to the use of data from clinical trials conducted in foreign jurisdictions. In addition, such foreign trials are subject to the applicable local laws of the foreign jurisdictions where the trials are conducted. There can be no assurance that the FDA or any comparable foreign regulatory authority will accept data from trials conducted outside of the United States or the applicable jurisdiction. If the FDA or any comparable foreign regulatory authority does not accept such data, it would result in the need for additional trials, which could be costly and time-consuming, and which may result in verekitug or any other potential future product candidates that we may develop being delayed or not receiving approval for commercialization in the applicable jurisdiction.

The successful development of pharmaceutical products involves a lengthy and expensive process and is highly uncertain.

Successful development of pharmaceutical products is highly uncertain and is dependent on numerous factors, many of which are beyond our control. Product candidates that appear promising in the early phases of development may fail to reach the market for several reasons, including:

- clinical trial results may show product candidates to be less effective than expected (for example, a clinical trial could fail to meet its primary or key secondary endpoint(s)) or have an unacceptable safety or tolerability profile;
- failure to receive the necessary regulatory approvals or a delay in receiving such approvals, which, among other things, may be caused by patients who fail the trial screening process, slow enrollment in clinical trials, patients dropping out of trials, patients lost to follow-up, length of time to achieve trial endpoints, additional time requirements for data analysis or a Biologics License Application (“BLA”) or similar foreign application preparation, discussions with the FDA, an FDA request for additional preclinical or clinical data (such as long-term toxicology studies) or unexpected safety or manufacturing issues;
- preclinical study results may show verekitug or any other potential future product candidates to have harmful side effects;
- post-marketing approval requirements; or
- the proprietary rights of others and their competing products and technologies that may prevent verekitug or any other potential future product candidates from being commercialized.

The length of time necessary to complete clinical trials and submit an application for marketing approval for a final decision by a regulatory authority varies significantly from one product candidate to the next and from one country or jurisdiction to the next and may be difficult to predict.

Furthermore, any product candidate we develop and the activities associated with its development and commercialization, including its design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale, and distribution, are subject to comprehensive regulation by the FDA and other regulatory authorities in the United States and by comparable authorities in other countries. Failure to obtain marketing approval for verekitug or any other potential future product candidates will prevent us from commercializing the product candidate in a given jurisdiction. We have not received approval to market any product candidates from regulatory authorities in any jurisdiction, and it is possible that verekitug or any of our other potential future product candidates will not ever obtain regulatory approval.

We have no experience as an organization in submitting and supporting the applications necessary to gain marketing approvals and expect to rely on third-party contract research organizations (“CROs”) or regulatory consultants to assist us in this process. Securing regulatory approval requires the submission of extensive preclinical and clinical data and supporting information to the various regulatory authorities for each therapeutic indication to establish the product candidate’s safety and efficacy. Securing regulatory approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the relevant regulatory authority. Any product candidates we develop may not be effective, may be only moderately effective, or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude its obtaining marketing approval or prevent or limit commercial use.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially

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based upon a variety of factors, including the type, complexity, and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. The FDA and comparable authorities in other countries have discretion in the approval process and may refuse to accept any application or may decide that our data are insufficient for approval and require additional preclinical, clinical or other studies. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit, or prevent marketing approval of a product candidate. Any marketing approval that we may ultimately obtain could be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

Even if we are successful in obtaining marketing approval, commercial success of any approved products will also depend in large part on the availability of coverage and adequate reimbursement from third-party payors, including government payors such as the Medicare and Medicaid programs and comparable foreign programs and managed care organizations in the United States or country-specific governmental organizations in foreign countries, which may be affected by existing and future healthcare reform measures designed to reduce the cost of healthcare. Third-party payors could require us to conduct additional studies, including post-marketing studies related to the cost effectiveness of a product, to qualify for reimbursement, which could be costly and divert our resources. If government and other healthcare payors were not to provide coverage and adequate reimbursement for our products once approved, market acceptance and commercial success would be reduced.

In addition, if verekitug or any other potential future product candidates receive marketing approval, we will be subject to significant regulatory obligations regarding the submission of safety and other post-marketing information and reports and registration, and will need to continue to comply (or ensure that our third-party providers comply) with current Good Manufacturing Practices (“cGMPs”) and GCPs for any clinical trials that we conduct post-approval. In addition, there is always the risk that we, a regulatory authority or a third party might identify previously unknown problems with a product post-approval, such as adverse events of unanticipated severity or frequency. Compliance with these requirements is costly, and any failure to comply or other issues with verekitug or any other potential future product candidates post-approval could adversely affect our business, financial condition, results of operations and growth prospects.

Certain estimates of market opportunity and forecasts included in this prospectus may prove to be smaller than we believe.

The estimates of market opportunity and forecasts of market growth included in this prospectus may prove to be smaller than we believe, and even if the markets in which we compete achieve the forecasted growth, our business may not grow at similar rates, or at all. Our initial focus is on the development of verekitug for the treatment of severe respiratory disorders, including severe asthma, CRSwNP and COPD. Our projections of addressable patient populations within these indications are based on our estimates and independent market research, industry and general publications obtained from third parties. Market opportunity estimates and growth forecasts included in this prospectus are subject to significant uncertainty and are based on assumptions and estimates. These estimates, which have been derived from a variety of sources, including scientific literature, surveys of clinics, patient foundations and market research, may prove to be incorrect. Further, new studies may change the estimated incidence or prevalence of these indications. Additionally, the potentially addressable patient population may not ultimately be amenable to treatment with our product candidate if we cannot achieve our intended dosing interval. Our market opportunity may also be limited by current and future products of our competitors that are already available in the market or may enter the market for such patients. If any of our estimates prove to be inaccurate, the market opportunity for verekitug could be significantly diminished and have an adverse material impact on our business.

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Due to the significant resources required for drug development and depending on our ability to access capital, we must prioritize the development of verekitug. Moreover, we may fail to expend our limited resources on the development of verekitug for the treatment of additional indications or for the development of other potential future product candidates that may have been more profitable or for which there is a greater likelihood of success.

Our product candidate, verekitug for the treatment of severe asthma and CRSwNP, is currently in Phase 2 clinical development in each of these indications, and we plan to initiate clinical development for verekitug in COPD. Our initial focus is on developing verekitug for the treatment of severe respiratory disorders.

Due to the significant resources required for the development of verekitug, we must decide which indications to pursue and advance and the amount of resources to allocate to each. Our decisions concerning the allocation of research, development, collaboration, management and financial resources toward particular indications may not lead to the development of viable commercial products and may divert resources away from better opportunities. If we make incorrect determinations regarding the viability or market potential of verekitug or misread trends in the pharmaceutical industry, our business, financial condition, results of operations and growth prospects could be materially and adversely affected. As a result, we may fail to capitalize on viable commercial products or profitable market opportunities, be required to forego or delay pursuit of opportunities verekitug or any potential future product candidates with other diseases and disease pathways that may later prove to have greater commercial potential than those we choose to pursue, or relinquish valuable rights to verekitug through collaboration, licensing or royalty arrangements in cases in which it would have been advantageous for us to invest additional resources to retain sole development and commercialization rights.

If we successfully commercialize verekitug, our results of operations will be affected by the level of royalty payments that we are required to pay to Regeneron.

In connection with our Asset Purchase Agreement with Astellas, we also entered into a letter agreement (the “Regeneron Letter Agreement”) with Astellas and Regeneron Pharmaceuticals Inc. (“Regeneron”). Under the Regeneron Letter Agreement, we assumed from Astellas an obligation to make mid-single-digit percentage royalty payments to Regeneron upon the commercialization of products developed from materials originally licensed to Astellas. The payment of royalties may have a negative effect on our results of operations and our ability to reinvest capital generated from commercialization to develop verekitug in additional indications or grow our company. Furthermore, any failure on our part to pay royalties owed to Regeneron could impact our rights to verekitug, lead to the initiation of legal proceedings against us and thereby adversely affect our business. For additional information on the Regeneron Letter Agreement, see the section titled “Business—Asset purchase and license agreements—Asset acquisition from Astellas” included elsewhere in this prospectus.

We may seek to grow our business through acquisitions or investments in new or complementary businesses, products or technologies, through the licensing of products or technologies from third parties or other strategic alliances. The failure to manage acquisitions, investments, licenses or other strategic alliances, or the failure to integrate them with our existing business, could have a material adverse effect on our operating results, dilute our stockholders’ ownership, increase our debt or cause us to incur significant expense.

Our success depends on our ability to continually enhance and broaden our product offerings in response to changing clinician and patients’ needs, competitive technologies and market pressures. Accordingly, from time to time we may consider opportunities to acquire, make investments in or license other technologies, products and businesses that may enhance our capabilities, complement our existing products and technologies or expand the breadth of our markets or customer base. Potential and completed acquisitions, strategic investments, licenses and other alliances involve numerous risks, including:

- difficulty assimilating or integrating acquired or licensed technologies, products, employees or business operations;

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- issues maintaining uniform standards, procedures, controls and policies;
- unanticipated costs associated with acquisitions or strategic alliances, including the assumption of unknown or contingent liabilities and the incurrence of debt or future write-offs of intangible assets or goodwill;
- diversion of management's attention from our core business and disruption of ongoing operations;
- adverse effects on existing business relationships with suppliers, sales agents, healthcare facilities, surgeons and other healthcare professionals;
- risks associated with entering new markets in which we have limited or no experience;
- potential losses related to investments in other companies;
- potential loss of key employees of acquired businesses; and
- increased legal and accounting compliance costs.

We do not know if we will be able to identify acquisitions or strategic relationships we deem suitable, whether we will be able to successfully complete any such transactions on favorable terms, if at all, or whether we will be able to successfully integrate any acquired business, product or technology into our business or retain any key personnel, suppliers, sales agent, healthcare facilities, physicians or other healthcare providers. Our ability to successfully grow through strategic transactions depends upon our ability to identify, negotiate, complete and integrate suitable target businesses, technologies or products and to obtain any necessary financing. These efforts could be expensive and time-consuming and may disrupt our ongoing business and prevent management from focusing on our operations.

To finance any acquisitions, investments or strategic alliances, we may choose to issue shares of our common stock as consideration, which could dilute the ownership of our stockholders. If the price of our common stock is low or volatile, we may be unable to consummate any acquisitions, investments or strategic alliances using our common stock as consideration. Additional funds may not be available on terms that are favorable to us, or at all.

We, our collaborators, and our service providers are subject to a variety of stringent and evolving privacy and data security laws, regulations, and rules, contractual obligations, industry standards, policies, and other obligations related to privacy and data security. Any actual or perceived failure to comply with such obligations could expose us to significant fines or other penalties and otherwise harm our business and operations.

In the ordinary course of our business, we and the third parties upon which we rely collect, receive, store, or otherwise process personal data, including information we may collect about participants in our clinical trials. Our data processing activities subject us to numerous, evolving privacy and data security obligations, such as various laws, regulations, guidance, industry standards, external and internal privacy and security policies, contractual requirements, and other obligations relating to privacy and data security.

The legislative and regulatory framework for the processing of personal data worldwide is rapidly evolving in a manner that is increasingly stringent and, globally, this legal and regulatory framework is likely to remain uncertain for the foreseeable future. In the United States, numerous federal, state and local laws and regulations, including federal health information privacy laws, state information security and data breach notification laws, federal consumer protection laws (e.g., Section 5 of the Federal Trade Commission Act), state consumer protection and privacy laws, and other similar laws (e.g., wiretapping and communications interception laws) govern the processing of health-related and other personal data.

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At the state level, numerous U.S. states have enacted comprehensive privacy laws that impose certain obligations on covered businesses, including providing specific disclosures in privacy notices and affording individuals certain rights concerning their personal data. Similar laws are being considered in several other states, as well as at the federal and local levels, and we expect more states to pass similar laws in the future. While existing state comprehensive privacy laws exempt some data processed in the context of clinical trials, these developments may further complicate compliance efforts, and increase legal risk and compliance costs for us and the third parties upon whom we rely.

Additionally, we may be subject to new laws governing the privacy of consumer health data. These various privacy and data security laws may impact our business activities, including our identification of research subjects, relationships with business partners and ultimately the marketing and distribution of our products.

Outside the United States, an increasing number of laws, regulations, and industry standards may govern privacy, data security, and the transfer of personal data between jurisdictions. For example, the European Union's General Data Protection Regulation ("EU GDPR") and the United Kingdom's General Data Protection Regulation ("UK GDPR", together with the EU GDPR, "GDPR") impose strict requirements for processing personal data including relating to processing of sensitive data (such as health data), ensuring there is a legal basis or condition to justify the processing of personal data, where required requirements relating to obtaining consent of individuals, disclosures about how personal data is to be used, limitations on retention of information, implementing safeguards to protect the security and confidentiality of personal data, where required providing notification of data breaches, maintaining records of processing activities and documenting data protection impact assessments where there is high risk processing and taking certain measures when engaging third-party processors. Under GDPR, companies may face temporary or definitive bans on data processing and other corrective activities, fines of up to €20 million (£17.5 million GBP) or 4% of annual global revenues, whichever is greater, and private litigation related to processing of personal data brought by classes of data subjects or consumer protection organizations authorized at law to represent their interests. Non-compliance could also result in a material adverse effect on our business, financial position and results of operations.

In addition, we may be unable to transfer personal data from Europe and other jurisdictions to the United States or other countries due to data localization requirements or limitations on cross-border data flows. Europe and other jurisdictions have enacted laws requiring data to be localized or limiting the transfer of personal data to other countries. In particular, the European Economic Area ("EEA") and the United Kingdom ("UK") have significantly restricted the transfer of personal data to the United States and other countries. Other jurisdictions may adopt similarly stringent interpretations of their data localization and cross-border data transfer laws. Although there are currently various mechanisms that may be used to transfer personal data from the EEA and UK to the United States in compliance with law, such as the EEA's standard contractual clauses, the UK's International Data Transfer Agreement / Addendum, and the EU-U.S. Data Privacy Framework ("Framework") and the UK extension thereto (which allows for transfers to relevant U.S.-based organizations who self-certify compliance and participate in the Framework), these mechanisms are subject to legal challenges, and there is no assurance that we can satisfy or rely on these measures to lawfully transfer personal data to the United States. If there is no lawful manner for us to transfer personal data from the EEA, the UK, or other jurisdictions to the United States (or other countries), or if the requirements for a legally-compliant transfer are too onerous, we could face significant adverse consequences, including the interruption or degradation of our operations, the need to relocate part of or all of our business or data processing activities to other jurisdictions (such as Europe) at significant expense, increased exposure to regulatory actions, substantial fines and penalties, the inability to transfer data and work with partners, vendors and other third parties, and injunctions against our processing or transferring of personal data necessary to operate our business. Additionally, companies that transfer personal data out of the EEA and UK to other jurisdictions,

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particularly to the United States, are subject to increased scrutiny from regulators, individual litigants, and activities activist groups. Some European regulators have ordered certain companies to suspend or permanently cease certain transfers of personal data out of Europe for allegedly violating the GDPR's cross-border data transfer limitations.

In addition to privacy and data security laws, we are contractually subject to industry standards adopted by industry groups and may become subject to such obligations in the future. We are also bound by other contractual obligations related to privacy and data security, and our efforts to comply with such obligations may not be successful.

We publish privacy policies and other statements, such as compliance with certain certifications or self-regulatory principles, regarding privacy and data security. If these policies, materials or statements are found to be deficient, lacking in transparency, deceptive, unfair, or misrepresentative of our practices, we may be subject to investigation, enforcement actions by regulators, or other adverse consequences.

Obligations related to privacy and data security are quickly changing, becoming increasingly stringent, and creating uncertainty. Additionally, these obligations may be subject to differing applications and interpretations, which may be inconsistent or conflict among jurisdictions. Preparing for and complying with these obligations requires us to devote significant resources and may necessitate changes to our services, information technologies, systems, and practices and to those of any third parties that process personal data on our behalf.

We may at times fail in our efforts to comply with our privacy and data security obligations. Moreover, despite our efforts, our personnel or third parties on whom we rely may fail to comply with such obligations, which could negatively impact our business operations. If we or the third parties on which we rely fail, or are perceived to have failed, to address or comply with applicable privacy and data security obligations, we could face significant consequences, including but not limited to: government enforcement actions (e.g., investigations, fines, penalties, audits, inspections, and similar); litigation (including class-action claims), and mass arbitration demands; additional reporting requirements and/or oversight; bans on processing personal data; and orders to destroy or not use personal data. In particular, plaintiffs have become increasingly more active in bringing privacy-related claims against companies, including class claims and mass arbitration demands. Some of these claims allow for the recovery of statutory damages on a per violation basis, and, if viable, carry the potential for significant statutory damages, depending on the volume of data and the number of violations. Any of these events could have a material adverse effect on our reputation, business, financial condition, results of operations and growth prospects, including but not limited to: loss of customers; interruptions or stoppages in our business operations (including, as relevant, clinical trials); inability to process personal data or to operate in certain jurisdictions; limited ability to develop or commercialize our products; expenditure of time and resources to defend any claim or inquiry; adverse publicity; or substantial changes to our business model or operations.

Artificial intelligence presents risks and challenges that can impact our business including by posing security risks to our confidential information, proprietary information, and personal data.

Issues in the development and use of artificial intelligence, combined with an uncertain regulatory environment, may result in reputational harm, liability, or other adverse consequences to our business operations. As with many technological innovations, artificial intelligence presents risks and challenges that could impact our business. We may adopt and integrate generative artificial intelligence tools into our systems for specific use cases reviewed by legal and information security. Our vendors may incorporate generative artificial intelligence tools into their offerings without disclosing this use to us, and the providers of these

generative artificial intelligence tools may not meet existing or rapidly evolving regulatory or industry standards with respect to privacy and data protection and may inhibit our or our vendors' ability to maintain an adequate level of service and experience. If we, our vendors, or our third-party partners experience an actual or perceived breach or privacy or security incident because of the use of generative artificial intelligence, we may lose valuable intellectual property and confidential information and our reputation and the public perception of the effectiveness of our security measures could be harmed. Further, bad actors around the world use increasingly sophisticated methods, including the use of artificial intelligence, to engage in illegal activities involving the theft and misuse of personal information, confidential information, and intellectual property. Any of these outcomes could damage our reputation, result in the loss of valuable property and information, and adversely impact our business.

Risks related to the discovery and development of Verekitug or any other potential future product candidates

The regulatory approval processes of the FDA, the EMA, and the European Commission and other comparable foreign regulatory authorities are lengthy, time-consuming and inherently unpredictable, and if we are ultimately unable to obtain regulatory approval for verekitug or any other potential future product candidates, our business will be substantially harmed.

We are not permitted to commercialize, market, promote or sell any product candidate in the United States without obtaining regulatory approval from the FDA. Regulatory authorities outside of the United States impose similar requirements. The time required to obtain approval by the FDA, European Commission and other comparable foreign regulatory authorities is inherently unpredictable, but typically takes many years following the commencement of clinical trials and depends upon numerous factors, including substantial discretion of the regulatory authorities. In addition, approval policies, regulations, or the type and amount of clinical data necessary to gain approval may change during the course of a product candidate's clinical development and may vary among jurisdictions. For instance, jurisdictions outside of the United States, such as the European Union or Japan, may have different requirements for regulatory approval, which may require us to conduct additional clinical, nonclinical or chemistry, manufacturing and control studies. To date, we have not submitted a BLA to the FDA or similar drug approval submissions to comparable foreign regulatory authorities for any product candidate. We must complete additional preclinical studies and clinical trials to demonstrate the safety and efficacy of verekitug or any other potential future product candidates in humans before we will be able to obtain these approvals.

Clinical testing is expensive, difficult to design and implement, can take many years to complete and is inherently uncertain as to outcome. The general approach for FDA approval of a new drug is dispositive data from two or more adequate and well-controlled clinical trials of the product candidate in the relevant patient population. The FDA, the EMA, the European Commission, or other comparable foreign regulatory authorities may disagree with us about whether a clinical trial is adequate and well-controlled or may request that we conduct additional clinical trials prior to regulatory approval. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. In addition, there is no assurance that the doses, endpoints and trial designs that we intend to use for our planned clinical trials, including those that we have developed based on feedback from regulatory agencies or those that have been used for the approval of similar drugs, will be acceptable for future approvals. The clinical development of verekitug or any other potential future product candidates is also susceptible to the risk of failure inherent at any stage of development, including failure to demonstrate efficacy in a clinical trial or across a broad population of patients, the occurrence of adverse events that are severe or medically or commercially unacceptable, failure to comply with protocols or applicable regulatory requirements and determination by the FDA or any comparable foreign regulatory authority that a product candidate may not continue development or is not approvable. It is possible

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that even if verekitug or any other potential future product candidates have a beneficial effect, that effect will not be detected during clinical evaluation as a result of one or more of a variety of factors, including the size, duration, design, measurements, conduct or analysis of our clinical trials. Conversely, as a result of the same factors, our clinical trials may indicate an apparent positive effect of such product candidate that is greater than the actual positive effect, if any. Similarly, in our clinical trials we may fail to detect toxicity of, or intolerability caused by, such product candidate, or mistakenly believe that verekitug or any other potential future product candidates are toxic or not well tolerated when that is not in fact the case. Serious adverse events or other adverse events, as well as tolerability issues, could hinder or prevent market acceptance of the product candidate at issue.

Verekitug or any other potential future product candidates could fail to receive regulatory approval, or regulatory approval could be delayed, for many reasons, including the following:

- the FDA, the EMA, the competent authorities of individual EU Member States, or other comparable foreign regulatory authorities may disagree with the dosing regimen, design or implementation of our clinical trials;
- we may be unable to demonstrate to the satisfaction of the FDA, the EMA and the European Commission, or other comparable foreign regulatory authorities that a product candidate is safe and effective for any of its proposed indications;
- the results of clinical trials may not meet the level of statistical significance required by the FDA, the EMA and the European Commission, or other comparable foreign regulatory authorities for approval;
- we may be unable to demonstrate that a product candidate's clinical and other benefits outweigh its safety risks;
- the FDA, the EMA or the European Commission, or other comparable foreign regulatory authorities may disagree with our interpretation of data from clinical trials or preclinical studies;
- the data collected from clinical trials of verekitug or any other potential future product candidates may not be sufficient to support the submission of a BLA to the FDA or other submission or to obtain regulatory approval in the United States, the European Union or elsewhere;
- the FDA, the EMA or other comparable foreign regulatory authorities may not file or accept our BLA or marketing application for substantive review;
- the FDA, the competent authorities of individual EU Member States or other comparable foreign regulatory authorities may find deficiencies with or fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies; and
- the approval policies or regulations of the FDA, the EMA and the European Commission, or other comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval.

This lengthy approval process as well as the unpredictability of clinical trial results may result in our failing to obtain regulatory approval to market any product candidate we develop, which would substantially harm our business, results of operations and prospects. The FDA and other comparable foreign authorities have discretion in the approval process and determining when or whether regulatory approval will be granted for verekitug or any other potential future product candidates that we develop. Even if we believe the data collected from future clinical trials verekitug or any other potential future product candidates are promising, such data may not be sufficient to support approval by the FDA, the European Commission, or any other comparable foreign regulatory authority.

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In addition, even if we were to obtain approval, regulatory authorities may approve verekitug or any other potential future product candidates for fewer or more limited indications than we request, may not approve the price we intend to charge for our products, may grant approval contingent on the performance of costly post-marketing clinical trials or may approve verekitug or any other potential future product candidates with a label that does not include the labeling claims necessary or desirable for the successful commercialization. Any of the foregoing scenarios could materially harm the commercial prospects for verekitug or any other potential future product candidates.

Verekitug represents a novel approach to the treatment of inflammatory diseases, which makes it difficult to predict its likelihood of success and the time and cost of development and obtaining regulatory approval.

We have concentrated our research and development efforts to develop a first-in-class antagonist of the receptor for Thymic Stromal Lymphopoietin (“TSLP”) and our future success depends on the successful development of this therapeutic approach. We are in the early stages of developing verekitug and there can be no assurance that any development problems we have experienced or may experience in the future will not cause significant delays or result in unforeseen issues or unanticipated costs, or that any such development problems or issues can be overcome. We may also experience delays in developing a sustainable, reproducible and scalable manufacturing process or transferring that process to commercial partners, which may prevent us from completing our future clinical studies or commercializing our products on a timely or profitable basis, if at all. In addition, our expectations with regard to the advantages of inhibiting the TSLP receptor relative to the approach of other therapies may not materialize or materialize to the degree we anticipate. Further, our scalability and costs of manufacturing may vary significantly as we develop verekitug and understand these critical factors.

In addition, the clinical study requirements of the FDA, the EMA and the European Commission, and other regulatory authorities and the criteria these regulators use to determine the safety and efficacy of a product candidate are determined according to the type, complexity, novelty and intended use and market of the potential products. The regulatory approval process for novel product candidates such as ours can be more complex and consequently more expensive and take longer than for other, better known or extensively studied pharmaceutical or other product candidates. Approvals by the European Commission and FDA for existing biologic treatments for asthma, such as dupilumab and tezepelumab, as well as other pathways to approval, may not be indicative of what these regulators may require for approval of our therapy. More generally, approvals by any regulatory authority may not be indicative of what any other regulatory authority may require for approval or what such regulatory authorities may require for approval in connection with new product candidates.

Verekitug may also not perform successfully in clinical trials or may be associated with adverse events that distinguish it from previously approved therapies or those that may be approved in the future. Unexpected clinical outcomes could materially and adversely affect our business, results of operations and prospects.

If our clinical trials fail to replicate positive results from earlier preclinical studies or clinical trials conducted by us or third parties, we may be unable to successfully develop, obtain regulatory approval for or commercialize verekitug or any other potential future product candidates.

The results observed from preclinical studies or early-stage clinical trials of verekitug or any other potential future product candidates may not necessarily be predictive of the results of later-stage clinical trials that we conduct. Similarly, positive results from such preclinical studies or early-stage clinical trials may not be replicated in our subsequent preclinical studies or clinical trials. For instance, results seen in our Phase 1b multiple ascending dose (“MAD”) clinical trial for verekitug in patients with asthma may not translate to similar

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results in our ongoing Phase 2 clinical trial in patients with severe asthma. Furthermore, verekitug or any other potential future product candidates may not be able to demonstrate similar activity or adverse event profiles as other product candidates that we believe may have similar profiles. In addition, in our planned future clinical trials, we may utilize clinical trial designs or dosing regimens that have not been tested in prior clinical trials.

There can be no assurance that any of our clinical trials will ultimately be successful or support further clinical development of verekitug or any other potential future product candidates. There is a high failure rate for drugs proceeding through clinical trials. Many companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in early-stage development, and we cannot be certain that we will not face similar setbacks. These setbacks have been caused by, among other things, adverse safety or efficacy observations made in clinical trials.

Additionally, we may utilize an “open-label” clinical trial design. An “open-label” clinical trial is one where both the patient and investigator know whether the patient is receiving the investigational product candidate or either an existing approved drug or placebo. Most open-label clinical trials test only the investigational product candidate and sometimes may do so at different dose levels. Open-label clinical trials are subject to various limitations that may exaggerate any therapeutic effect as patients in open-label clinical trials are aware when they are receiving treatment. Open-label clinical trials may be subject to a “patient bias” where patients perceive their symptoms to have improved merely due to their awareness of receiving an experimental treatment. In addition, open-label clinical trials may be subject to an “investigator bias” where those assessing and reviewing the physiological outcomes of the clinical trials are aware of which patients have received treatment and may interpret the information of the treated group more favorably given this knowledge. The results from an open-label trial may not be predictive of future clinical trial results of a product candidate when studied in a controlled environment with a placebo or active control.

Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses and many companies that believed their product candidates performed satisfactorily in preclinical studies and clinical trials nonetheless failed to obtain FDA, European Commission, or comparable foreign regulatory authority approval.

We may incur unexpected costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of verekitug or any other potential future product candidates, which could prevent us from achieving our projected development and commercialization goals in the timeframes we announce and expect, and harm our business and results of operations. Many of the factors that cause or lead to a delay in the initiation or completion of clinical trials may also lead to the denial of regulatory approval or limit market acceptance of verekitug or any other potential future product candidates.

We may experience delays in completing our clinical trials or preclinical studies and initiating or completing additional clinical trials or preclinical studies, including as a result of regulators not allowing or delay in allowing clinical trials to proceed under an IND or similar foreign authorization, or not approving or delaying approval for any clinical trial grant or similar approval we need to initiate a clinical trial. We may also experience numerous unforeseen events during our clinical trials that could delay or prevent our ability to receive marketing approval or commercialize verekitug or any other potential future product candidates we develop, including:

- regulators, institutional review boards (“IRBs”), ethics committees, or other reviewing bodies may not authorize us or our investigators to commence a clinical trial, or to conduct or continue a clinical trial at a prospective or specific trial site, or provide a related positive opinion permitting such activities;
- we may not reach 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;

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- we may experience challenges or delays in recruiting principal investigators or study sites to lead our clinical trials;
- the number of subjects or patients required for clinical trials of verekitug or any other potential future product candidates may be larger than we anticipate, enrollment in these clinical trials may be insufficient or slower than we anticipate, and the number of clinical trials being conducted at any given time may be high and result in fewer available patients for any given clinical trial, or patients may drop out of these clinical trials at a higher rate than we anticipate;
- our third-party contractors, including those manufacturing verekitug or any other potential future product candidates or conducting clinical trials on our behalf, may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;
- we may have to amend clinical trial protocols submitted to regulatory authorities or conduct additional studies to reflect changes in regulatory requirements or guidance, which may be required to resubmit to an IRB, ethics committee and regulatory authorities for re-examination;
- regulators or other reviewing bodies may find deficiencies with, fail to approve or subsequently find fault with the manufacturing processes or facilities of third-party manufacturers with which we enter into agreements for clinical and commercial supplies, or the supply or quality of any product candidate or other materials necessary to conduct clinical trials of verekitug or any other potential future product candidates may be insufficient, inadequate or not available at an acceptable cost, or we may experience interruptions in supply; and
- the potential for approval policies or regulations of the FDA, the EMA, and the European Commission, or the applicable regulatory authorities to significantly change in a manner rendering our clinical data insufficient for approval.

Regulators, IRBs, or ethics committees of the institutions in which clinical trials are being conducted may suspend, limit or terminate a clinical trial, or data monitoring committees may recommend that we suspend or terminate a clinical trial, due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA, the competent authorities of individual EU Member States, or other comparable foreign regulatory authorities resulting in the imposition of a clinical hold, 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. Negative or inconclusive results from our clinical trials or preclinical studies could mandate repeated or additional clinical trials and, to the extent we choose to conduct clinical trials in other indications, could result in changes to or delays in clinical trials of verekitug or any other potential future product candidates in such other indications. We do not know whether any clinical trials that we conduct will demonstrate adequate efficacy and safety to result in regulatory approval to market verekitug or any other potential future product candidates for the indications that we are pursuing. If later-stage clinical trials do not produce favorable results, our ability to obtain regulatory approval for verekitug or any other potential future product candidates will be adversely impacted.

For planning purposes, we sometimes estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development objectives. These milestones may include our expectations regarding the commencement or completion of scientific studies and clinical trials, the submission of regulatory filings or commercialization objectives. From time to time, we may publicly announce the expected timing of some of these milestones, such as the completion of an ongoing clinical trial, the initiation of other clinical programs, receipt of marketing approval or a commercial launch of a product. The achievement of many of

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these milestones may be outside of our control. All of these milestones are based on a variety of assumptions which, if not realized as expected, may cause the timing of achievement of the milestones to vary considerably from our estimates, including:

- our available capital resources or capital constraints we experience;
- the rate of progress, costs and results of our clinical trials and research and development activities, including the extent of scheduling conflicts with participating clinicians and collaborators;
- our ability to identify and enroll patients who meet clinical trial eligibility criteria;
- our receipt of approvals by the FDA and other comparable foreign regulatory authorities and the timing thereof;
- other actions, decisions or rules issued by regulators;
- our ability to access sufficient, reliable and affordable supplies of materials used to manufacture verekitug or any other potential future product candidates;
- the efforts of our collaborators with respect to the commercialization of verekitug or any other potential future product candidates; and
- the securing of, costs related to, and timing issues associated with, product manufacturing as well as sales and marketing activities.

If we fail to achieve announced milestones in the timeframes we expect, the development and commercialization of verekitug or any other potential future product candidates may be delayed, and our business, financial condition, results of operations and growth prospects may be harmed.

Our failure to successfully initiate and complete clinical trials and to demonstrate the efficacy and safety necessary to obtain regulatory approval to market verekitug or any other potential future product candidates would also significantly harm our business. Our development costs will also increase if we experience delays in testing or regulatory approvals and we may be required to obtain additional funds to complete clinical trials. We cannot assure you that our clinical trials will begin as planned or be completed on schedule, if at all, or that we will not need to restructure or otherwise modify our trials after they have begun. Significant clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize verekitug or any other potential future product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize verekitug or any other potential future product candidates, which may harm our business, financial condition, results of operations and growth prospects. In addition, many of the factors that cause, or lead to, delays of clinical trials may ultimately lead to the denial of regulatory approval of verekitug or any other potential future product candidates.

If we experience delays in obtaining approval or if we fail to obtain approval of verekitug or any other potential future product candidates we may develop, the commercial prospects for such product candidate may be harmed, and our ability to generate revenues will be materially impaired.

Interim, initial, topline and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data becomes available and are subject to audit and verification procedures that could result in material changes in the final data.

Interim, initial, topline and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures

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that could result in material changes in the final data. From time to time, we publicly disclose preliminary or top-line data from our preclinical studies and clinical trials, which are based on preliminary analyses of then-available data, and the results and related findings and conclusions are subject to change following a more comprehensive review of the data related to the particular preclinical study or clinical 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. As a result, the top-line or preliminary results that we report may differ from future results of the same studies or trials, or different conclusions or considerations may qualify such results, once additional data have been received and fully evaluated. Top-line data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, top-line data should be viewed with caution until the final data are available. From time to time, we may also disclose interim data from our preclinical studies and clinical trials. 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 participants enrollment continues and more participants' data become available or as participants from our clinical trials continue other treatments for their disease. Adverse differences between interim data and final data could significantly harm our business prospects. 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 product candidate and could adversely affect the success of our business. In addition, the information we choose to publicly disclose regarding a particular study or 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, verekitug or any other potential future product candidates may be harmed, which could harm our business, financial condition, results of operations and growth prospects. Further, disclosure of interim, top-line or preliminary data by us or by our competitors could result in volatility in the price of our common stock after this offering. Furthermore, if we fail to replicate the positive results from our preclinical studies or clinical trials in our future clinical trials, we may be unable to successfully develop, obtain regulatory approval for and commercialize verekitug or any other potential future product candidates.

If we encounter difficulties enrolling patients in our clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with our protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the study until its conclusion. Patient enrollment is affected by many factors, including:

- the patient eligibility and exclusion criteria defined in the protocol;
- the size of the patient population required for analysis of the trial's primary endpoints;
- the number and location of study sites and proximity of patients to study sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- competing clinical trials and clinicians' and patients' perceptions as to the potential advantages and risks of the product candidate being studied in relation to other available therapies, including any new drugs that may be approved for the indications that we are investigating;

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- our ability to obtain and maintain patient consents; and
- the risk that patients enrolled in our clinical trials will drop out of the trials before completion.

We may experience challenges in recruiting principal investigators and patients to participate in ongoing and future clinical trials for verekitug or any other potential future product candidates if we are unable to sufficiently demonstrate the potential of such product candidate. In addition, our clinical trials may compete with other clinical trials for product candidates that are in the same therapeutic areas as verekitug or any other potential future product candidates, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we may conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials in such clinical trial site. Furthermore, if significant adverse events or other side effects are observed in any of our clinical trials, we may have difficulty recruiting patients to our trials and patients may drop out of our trials.

If we are unable to enroll a sufficient number of patients for our clinical trials, it would result in significant delays or might require us to abandon one or more clinical trials or our development efforts altogether. Delays in patient enrollment may result in increased costs, affect the timing or outcome of the planned clinical trials, product candidate development and approval process and jeopardize our ability to seek and obtain the regulatory approval required to commence product sales and generate revenue, which could prevent completion of these trials, adversely affect our ability to advance the development of verekitug or any other potential future product candidates, cause the value of the company to decline and limit our ability to obtain additional financing if needed.

Verekitug or any other potential future product candidates may cause undesirable side effects or have other properties that could delay or prevent regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following regulatory approval, if obtained.

Undesirable side effects caused by verekitug or any other potential future product candidates could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA, European Commission, or other comparable foreign regulatory authorities. We may also observe additional safety or tolerability issues with verekitug or any other potential future product candidates in ongoing or future clinical trials.

Many compounds that initially showed promise in clinical or earlier-stage testing are later found to cause undesirable or unexpected side effects that prevented further development of the compound. Results of ongoing or future clinical trials of verekitug or any other potential future product candidates could reveal a high and unacceptable severity and prevalence of side effects or unexpected characteristics, despite a favorable tolerability profile observed in earlier-stage testing.

If unacceptable side effects arise in the development of verekitug or any other potential future product candidates, we, the FDA, competent authorities of individual EU Member States, or other comparable foreign regulatory authorities, the IRBs, or independent ethics committees at the institutions in which our trials are conducted, could suspend, limit or terminate our clinical trials, or the independent safety monitoring committee could recommend that we suspend, limit or terminate our trials, or the FDA, competent authorities of individual EU Member States or other comparable foreign regulatory authorities could order us to cease clinical trials, or the FDA, the European Commission, or other comparable foreign regulatory authorities could deny approval of verekitug or any other potential future product candidates for any or all targeted indications. Treatment-emergent side effects that are deemed to be drug-related could delay recruitment of clinical trial subjects or

may cause subjects that enroll in our clinical trials to discontinue participation in our clinical trials. In addition, these side effects may not be appropriately recognized or managed by the treating medical staff. We may need to train medical personnel using verekitug or any other potential future product candidates to understand the side effect profiles for our clinical trials and upon any commercialization of verekitug or any other potential future product candidates. Inadequate training in recognizing or managing the potential side effects of verekitug or any other potential future product candidates could result in harm to patients that are administered verekitug or any other potential future product candidates. Any of these occurrences may adversely affect our business, financial condition, results of operations and growth prospects significantly.

Moreover, clinical trials are conducted in carefully defined sets of patients who have agreed to enter into clinical trials. Consequently, it is possible that our clinical trials may indicate an apparent positive effect of a product candidate that is greater than the actual positive effect, if any, or alternatively fail to identify undesirable side effects.

If we fail to expand our development of verekitug into additional indications, or discover or acquire, and subsequently develop and commercialize other product candidates, we may be unable to grow our business and our ability to achieve our strategic objectives would be impaired.

Although the development and commercialization of verekitug in severe asthma, CRSwNP and COPD are our initial focus, as part of our longer-term growth strategy, we plan to initiate and advance development of verekitug in additional indications. Expansion into new indications will require additional, time-consuming development efforts prior to commercial sale, including preclinical studies, clinical trials and approval by the FDA, the European Commission, and comparable foreign regulatory authorities. All product candidates are prone to the risks of failure that are inherent in pharmaceutical product development, including the possibility that the product candidate will not be shown to be sufficiently safe and effective for approval by regulatory authorities. In addition, we cannot assure you that any such products that are approved will be manufactured or produced economically, successfully commercialized or widely accepted in the marketplace or be more effective than other commercially available alternatives.

Risks related to the commercialization of Verekitug or any other potential future product candidates

Even if verekitug or any other potential future product candidates receive regulatory approval, such product candidate may fail to achieve the degree of market acceptance by physicians, patients, third-party payors and others in the medical community necessary for commercial success, in which case we may not generate significant revenues or become profitable.

We have never commercialized a product, and even if verekitug or any other potential future product candidate is approved by the appropriate regulatory authorities for marketing and sale, such product candidate may nonetheless fail to achieve sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. Many of the indications for verekitug have well-established standards of care that physicians, patients and payors are familiar with. Even if verekitug or any other potential future product candidates are successful in registrational clinical trials, such product candidate may not be successful in displacing these current standards of care if we are unable to demonstrate superior efficacy, safety, ease of administration and/or cost-effectiveness. For example, physicians may be reluctant to take their patients off their current medications and switch their treatment regimen to verekitug or any other potential future product candidates. Further, patients often acclimate to the treatment regimen that they are currently taking and do not want to switch unless their physicians recommend switching products or they are required to switch due to lack of coverage and adequate reimbursement. Even if we are able to demonstrate verekitug's or any other

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potential future product candidates' safety and efficacy to the FDA, the European Commission, and other regulators, safety or efficacy concerns in the medical community may hinder market acceptance.

Efforts to educate the medical community and third-party payors on the benefits of verekitug or any other potential future product candidates may require significant resources, including management time and financial resources, and may not be successful. If verekitug or any other potential future product candidates are approved but do not achieve an adequate level of market acceptance, we may not generate significant revenues and we may not become profitable. The degree of market acceptance of verekitug or any other potential future product candidates, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and safety of the product;
- the potential advantages of the product compared to competitive therapies;
- the prevalence and severity of any side effects;
- whether the product is designated under physician treatment guidelines as a first-, second- or third-line therapy;
- our ability, or the ability of any future collaborators, to offer the product for sale at competitive prices;
- the product's convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try, and of physicians to prescribe, the product;
- limitations or warnings, including distribution or use restrictions contained in the product's approved labeling;
- the strength of sales, marketing and distribution support;
- changes in the standard of care for the targeted indications for the product; and
- availability and adequacy of coverage and reimbursement from government payors, managed care plans and other third-party payors.

Any failure by verekitug or any other potential future product candidate that obtains regulatory approval to achieve market acceptance or commercial success would adversely affect our business prospects.

Competitive products may reduce or eliminate the commercial opportunity for verekitug or any other potential future product candidates, if approved. If our competitors develop technologies or product candidates more rapidly than we do, or their technologies or product candidates are more effective or safer than ours, our ability to develop and successfully commercialize verekitug or any other potential future product candidates may be adversely affected.

The clinical and commercial landscapes for the treatment of inflammatory diseases are highly competitive and subject to rapid and significant technological change. We face competition with respect to our indications for verekitug 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, such as Sanofi, Regeneron, AstraZeneca and Amgen, that currently market and sell drugs 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.

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We believe that a significant number of product candidates are currently under development for the same indications we are currently pursuing, and some or all may become commercially available in the future for the treatment of conditions for which we are trying or may try to develop product candidates. Our potential competitors include large pharmaceutical and biotechnology companies, specialty pharmaceutical and generic drug companies, academic institutions, government agencies and research institutions. See the section titled “Business—Competition” in this prospectus for examples of the competition that verekitug faces.

In most cases, we do not currently plan to run head-to-head clinical trials evaluating verekitug or any other potential future product candidates against the current standards of care, which may make it more challenging for verekitug or any other potential future product candidates to compete against the current standards of care due to the lack of head-to-head clinical trial data.

Our competitors may have significantly greater financial resources, established presence in the market, expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and reimbursement and marketing approved products than we do. Accordingly, our competitors may be more successful than we may be in obtaining regulatory approval for therapies and achieving widespread market acceptance. Our competitors’ products may be more effective, or more effectively marketed and sold, than verekitug or any other potential future product candidates we may commercialize and may render our therapies obsolete or non-competitive before we can recover development and commercialization expenses. If verekitug or any other potential future product candidates are approved, it could compete with a range of therapeutic treatments that are in development. In addition, our competitors may succeed in developing, acquiring or licensing technologies and drug products that are more effective or less costly than verekitug or any other potential future product candidates, which could render verekitug or any other potential future product candidates obsolete and noncompetitive.

If we obtain approval for verekitug or any other potential future product candidates, we may face competition based on many different factors, including the efficacy, safety and tolerability of our products, the ease with which our products can be administered, the timing and scope of regulatory approvals for these products, the availability and cost of manufacturing, marketing and sales capabilities, price, reimbursement coverage and patent position. Existing and future competing products could present superior treatment alternatives, including being more effective, safer, less expensive or marketed and sold more effectively than any products we may develop. Competitive products may make any products we develop obsolete or noncompetitive before we recover the expense of developing and commercializing verekitug or any other potential future product candidates. Such competitors could also recruit our employees, which could negatively impact our level of expertise and our ability to execute our business plan.

In addition, our competitors may obtain patent protection, regulatory exclusivities or FDA approval and commercialize products more rapidly than we do, which may impact future approvals or sales of verekitug or any other potential future product candidates that receive regulatory approval. If the FDA approves the commercial sale of verekitug or any other potential future product candidates, we will also be competing with respect to marketing capabilities and manufacturing efficiency. We expect competition among products will be based on product efficacy and safety, the timing and scope of regulatory approvals, availability of supply, marketing and sales capabilities, product price, reimbursement coverage by government and private third-party payors, regulatory exclusivities and patent position. Our profitability and financial position will suffer if verekitug or any other potential future product candidates receives regulatory approval but cannot compete effectively in the marketplace.

Mergers and acquisitions in the pharmaceutical and biotechnology industries may result in even more resources being concentrated among a smaller number of our competitors. Smaller and other early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with

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large and established companies. These third parties compete with us in recruiting and retaining qualified scientific and management personnel and establishing clinical trial sites, as well as in acquiring technologies complementary to, or necessary for, our programs.

If we are unable to develop our sales, marketing and distribution capability on our own or through collaborations with marketing partners, we will not be successful in commercializing verekitug or any other potential future product candidates.

We currently have no marketing, sales or distribution capabilities. We intend to establish a sales and marketing organization, either on our own or in collaboration with third parties, with technical expertise and supporting distribution capabilities to commercialize verekitug or any other potential future product candidates that may receive regulatory approval in key territories. These efforts will require substantial additional resources, some or all of which may be incurred in advance of any approval of the product candidate. Any failure or delay in the development of our or third parties' internal sales, marketing and distribution capabilities would adversely impact the commercialization of verekitug or any other potential future product candidates.

Factors that may inhibit our efforts to commercialize verekitug or any other potential future product candidates on our own include:

- our inability to recruit and retain an adequate number of effective sales and marketing personnel;
- the inability of sales personnel to obtain access to or persuade an adequate number of physicians to prescribe any future products;
- the lack of complementary products to be offered by sales personnel, which may put us at a competitive disadvantage relative to companies with more extensive product lines; and
- unforeseen costs and expenses associated with creating an independent sales and marketing organization.

With respect to verekitug or any other potential future product candidates, we may choose to collaborate with third parties that have direct sales forces and established distribution systems to serve as an alternative to our own sales force and distribution systems. Our future product revenue may be lower than if we directly marketed or sold verekitug or any other potential future product candidates, if approved. In addition, any revenue we receive will depend in whole or in part upon the efforts of these third parties, which may not be successful and are generally not within our control. If we are not successful in commercializing any approved products, our future product revenue will suffer and we may incur significant additional losses.

If we do not establish sales and marketing capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing verekitug or any other potential future product candidates.

The increasing use of social media platforms presents new risks and challenges.

Social media is increasingly being used to communicate about our clinical development programs and the diseases our therapeutics are being developed to treat, and we intend to utilize appropriate social media in connection with our commercialization efforts following approval of our product candidates, if any. Social media practices in the biopharmaceutical industry continue to evolve and regulations and regulatory guidance relating to such use are evolving and not always clear. This evolution creates uncertainty and risk of noncompliance with regulations applicable to our business, resulting in potential regulatory actions against us, along with the potential for litigation related to off-label marketing or other prohibited activities. For example, patients may use social media channels to comment on their experience in an ongoing blinded clinical trial or to report an alleged adverse event. When such disclosures occur, there is a risk that trial enrollment may be adversely impacted, that we fail to monitor and comply with applicable adverse event reporting obligations or

that we may not be able to defend our business or the public's legitimate interests in the face of the political and market pressures generated by social media due to restrictions on what we may say about our product candidates. There is also a risk of inappropriate disclosure of sensitive information or negative or inaccurate posts or comments about us on any social networking website. If any of these events were to occur or we otherwise fail to comply with applicable regulations, we could incur liability, face regulatory actions or incur other harm to our business.

Risks related to employee matters and managing growth

We expect to expand our organization, 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 regulatory affairs and sales, marketing and distribution, as well as to support our public company operations. To manage these growth activities, we must continue to implement and improve our managerial, operational, quality and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Our management may need to devote a significant amount of its attention to managing these growth activities. 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 or relocation of our operations, retain key employees, or identify, recruit and train additional qualified personnel. Our inability to manage the expansion or relocation of our operations effectively may result in weaknesses in our infrastructure, give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could also require significant capital expenditures and may divert financial resources from other projects, such as the development of additional product candidates. If we are unable to effectively manage our expected growth, our expenses may increase more than expected, our ability to generate revenues could be reduced and we may not be able to implement our business strategy, including the successful commercialization of verekitug or any other potential future product candidates.

Our ability to develop verekitug or any other potential future product candidates and our future growth depends on attracting, hiring and retaining our key personnel and recruiting additional qualified personnel.

Our success depends upon the continued contributions of our key management and scientific personnel, many of whom have been instrumental for us and have substantial experience with developing therapies, identifying potential product candidates and building the technologies related to the clinical development of verekitug or any other potential future product candidates. As we continue developing verekitug or any other potential future product candidates, we will require personnel with medical, scientific, or technical qualifications specific to each program. The loss of key personnel would delay our research and development activities. Despite our efforts to retain valuable employees, members of our team may terminate their employment with us on short notice. The competition for qualified personnel in the biotechnology and biopharmaceutical industries is intense, and our future success depends upon our ability to attract, retain, and motivate highly skilled scientific, technical and managerial employees. We face competition for personnel from other companies, universities, public and private research institutions, and other organizations. If our recruitment and retention efforts are unsuccessful in the future, it may be difficult for us to implement our business strategy, which would have a material adverse effect on our business.

In addition, our clinical operations and research and development programs depend on our ability to attract and retain highly skilled scientists, data scientists, and engineers, particularly in Massachusetts. There is powerful competition for skilled personnel in these geographical markets, and we have from time to time experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with

appropriate qualifications on acceptable terms, or at all. Many of the companies with which we compete for experienced personnel have greater resources than we do, and any of our employees may terminate their employment with us at any time. If we hire employees from competitors or other companies, their former employers may attempt to assert that these employees or we have breached legal obligations, resulting in a diversion of our time and resources and, potentially, damages. In addition, job candidates and existing employees often consider the value of the stock awards they receive in connection with their employment. If the perceived benefits of our stock awards decline, it may harm our ability to recruit and retain highly skilled employees. If we fail to attract new personnel or fail to retain and motivate our current personnel, our business and future growth prospects would be harmed.

Risks related to our dependence on third parties

We currently rely, and plan to rely in the future, on third parties to conduct and support our clinical trials. If they do not perform satisfactorily, we may not be able to obtain regulatory approval or commercialize verekitug or any other potential future product candidates, or such approval or commercialization may be delayed, and our business could be substantially harmed.

We have relied upon and plan to continue to rely on third parties, such as CROs, clinical data management organizations, medical institutions and clinical investigators, to conduct our clinical trials and expect to rely on these third parties to conduct clinical trials for verekitug or any other potential future product candidates that we develop. Our ability to complete clinical trials in a timely fashion depends on a number of key factors. These factors include protocol design, regulatory and IRB approval, or positive opinions from ethics committees, patient enrollment rates and compliance with GCPs. We have opened clinical trial sites and are enrolling patients in a number of countries where our experience is limited. In most cases, we use the services of third parties, including CROs, to carry out our clinical trial-related activities and rely on such parties to accurately report their results. Our reliance on third parties for clinical development activities may impact or limit our control over the timing, conduct, expense and quality of our clinical trials. Moreover, the FDA requires us to comply 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. The FDA enforces these GCPs through periodic inspections of clinical trial sponsors, principal investigators, clinical trial sites and IRBs. For certain commercial prescription drug products, manufacturers and other parties involved in the supply chain must also meet chain of distribution requirements and build electronic, interoperable systems for product tracking and tracing and for notifying the FDA of counterfeit, diverted, stolen and intentionally adulterated products or other products that are otherwise unfit for distribution in the United States. Comparable requirements and enforcement actions apply in foreign countries.

We remain responsible for ensuring that each of our trials is conducted in accordance with the applicable protocol, informed consent forms submitted to competent regulatory authorities, legal and regulatory requirements and scientific standards. Our failure or the failure of third parties to comply with the applicable protocol, informed consent forms, legal and regulatory requirements and scientific standards can result in rejection of our clinical trial data or other sanctions. If we or our third-party clinical trial providers or third-party CROs do not successfully carry out these clinical activities, our clinical trials or the potential regulatory approval of a product candidate may be delayed or be unsuccessful. Additionally, if we or our third-party contractors fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving verekitug or any other potential future product candidates, which would delay the regulatory approval process. We cannot be certain that, upon inspection, the FDA or comparable foreign regulatory authorities will determine that any of our clinical trials comply with GCPs. We are also required to register certain clinical trials and post the results of completed clinical trials on a government-sponsored

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database, ClinicalTrials.gov, within certain timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions. Comparable transparency and publication requirements apply in foreign countries.

Furthermore, the third parties conducting clinical trials on our behalf are not our employees, and except for remedies available to us under our agreements with such contractors, we cannot control whether or not they devote sufficient time, skill and resources to our ongoing development programs. Moreover, many CROs, including some of those that we have engaged to conduct our clinical trials, are experiencing enrollment challenges as a result of, among other things, high employee turnover driven by the post-COVID macroeconomic environment and the inexperience of new employees. Furthermore, at clinical trial sites, the availability of staff and trial participants has been limited due to a decrease in the number of clinical investigative sites across the globe. These contractors may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other drug development activities, which could impede their ability to devote appropriate time to our clinical programs. If these third parties, including clinical investigators, do not successfully carry out their contractual duties, meet expected deadlines or conduct our clinical trials in accordance with regulatory requirements or our stated protocols, we may not be able to obtain, or may be delayed in obtaining, regulatory approvals for verekitug or any other potential future product candidates. If that occurs, we will not be able to, or may be delayed in our efforts to, successfully commercialize verekitug or any other potential future product candidates. In such an event, our financial results and the commercial prospects for verekitug or any other potential future product candidates that we seek to develop could be harmed, our costs could increase and our ability to generate revenues could be delayed, impaired or foreclosed.

We also rely on other third parties to store and distribute drug supplies for our clinical trials. Any performance failure on the part of our distributors could delay clinical development or regulatory approval of verekitug or any other potential future product candidates or commercialization of any resulting products, producing additional losses and depriving us of potential product revenue.

Any of the third-party organizations we utilize may terminate their engagements with us under certain circumstances. The replacement of an existing CRO or other third party may result in the delay of the affected trials or otherwise adversely affect our efforts to obtain regulatory approvals and commercialize verekitug or any other potential future product candidates. For example, although we believe there are a number of other CROs we could engage, we may not be able to enter into alternative arrangements or do so on commercially reasonable terms. In addition, while we believe there may be suitable replacements for one or more of these service providers, there is a natural transition period when a new service provider begins work. As a result, delays may occur, which could negatively impact our ability to meet our expected clinical development timelines and harm our business, financial condition, results of operations and growth prospects.

Our information technology systems, or those used by our CROs or other contractors or consultants, may fail or suffer security breaches, which could adversely affect our business.

Our information technology systems and data and those of our current or future contract research organizations or other contractors and consultants are vulnerable to compromise or damage from computer hacking, computer viruses, and malware (e.g., ransomware malicious software), fraudulent activity, employee misconduct, human error, telecommunication and electrical failures, natural disasters, or other cybersecurity attacks or accidents. Future acquisitions could expose us to additional cybersecurity risks and vulnerabilities from any newly acquired information technology infrastructure. Cybersecurity attacks are increasing in frequency and sophistication and are made by groups and individuals with a wide range of motives (including industrial espionage) and expertise, including by organized criminal groups, "hacktivists," nation states, and others. As a result of a continued hybrid working environment, we may also face increased cybersecurity risks

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due to our reliance on internet technology and the number of our employees who are working remotely, which may create additional opportunities for cybercriminals to exploit vulnerabilities. Furthermore, because the techniques used to obtain unauthorized access to, or to sabotage systems change frequently and often are not recognized until launched against a target, we may be unable to anticipate these techniques or implement adequate preventative measures. Further, as a company with an increasingly global presence, our systems are subject to frequent attacks, which are becoming more commonplace in the industry, including attempted hacking, phishing attempts, such as cyber-related threats involving spoofed or manipulated electronic communications, which increasingly represent considerable risk. Due to the nature of some of the attacks described herein, there is a risk that an attack may remain undetected for a period of time. Even if identified, we may be unable to adequately investigate or remediate incidents or breaches due to attackers increasingly using tools and techniques that are designed to circumvent controls, to avoid detection, and to remove or obfuscate forensic evidence. While we continue to make investments to improve the protection of data and information technology, including in the hiring of information technology ("IT") personnel, periodic cyber security awareness trainings, and improvements to IT infrastructure and controls, and conduct regular testing of our systems, there can be no assurance that our efforts will prevent service interruptions or security breaches.

We and certain of our service providers are from time to time subject to cyberattack attempts or incidents and security incidents. Any cybersecurity incident could adversely affect our business, by leading to, for example, the loss of trade secrets or other intellectual property, demands for ransom or other forms of blackmail, or the unauthorized disclosure of personal or other sensitive information of our employees, clinical trial patients, customers, and others. Although to our knowledge we have not experienced any significant cybersecurity incident to date, if such an event were to occur, it could seriously harm our development programs and our business operations. We could be subject to breach notification requirements, regulatory actions taken by governmental authorities, litigation under laws that protect the privacy of personal information, or other forms of legal proceedings, which could result in significant liabilities or penalties, result in substantial costs and distract management. Further, a cybersecurity incident may disrupt our business or damage our reputation, which could have a material adverse effect on our business, financial condition, results of operations, growth prospects, share price and shareholder value. We could also incur substantial remediation costs, including the costs of investigating the incident, repairing or replacing damaged systems, restoring normal business operations, implementing increased cybersecurity protections, and paying increased insurance premiums.

For example, the loss of clinical trial data from completed, ongoing or future clinical trials could result in delays in or denials of our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. If a security breach or other incident were to result in the unauthorized access to or unauthorized use, disclosure, release or other processing of clinical trial data or personal data, it may be necessary to notify individuals, governmental authorities, supervisory bodies, the media, and other parties pursuant to privacy and security laws. Likewise, we rely on our third-party research collaborators for research and development of verekitug and other third parties to conduct clinical trials, and similar events relating to their information technology systems could also seriously harm our business. Any security compromise affecting us, our collaborators or our industry, whether real or perceived, could harm our reputation, erode confidence in the effectiveness of our security measures, and lead to regulatory scrutiny. To the extent that any disruption or security breach were to result in a loss of, or damage to, our data or systems, or inappropriate disclosure of confidential or proprietary or personal information, we could incur liability, our competitive position could be harmed, and the further development and commercialization of verekitug or any other potential future product candidates could be delayed, result in substantial costs and distract management.

We may seek to establish collaborations and, if we are not able to establish them on commercially reasonable terms, we may have to alter our development and commercialization plans.

The advancement, development programs and potential commercialization of verekitug or any other potential future product candidates will require substantial additional cash to fund expenses. For some of our programs, we may decide to collaborate with other pharmaceutical and biotechnology companies with respect to development and potential commercialization. Likely collaborators may include large and mid-size pharmaceutical companies, regional and national pharmaceutical companies and biotechnology companies. In addition, if we are able to obtain regulatory approval for verekitug or any other potential future product candidates from foreign regulatory authorities, we may enter into collaborations with international biotechnology or pharmaceutical companies for the commercialization of such product candidate.

We face significant competition in seeking appropriate collaborators. Whether we 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 potential differentiation of verekitug or any other potential future product candidates from competing product candidates, design or results of clinical trials, the likelihood of approval by the FDA, the European Commission, or other comparable foreign regulatory authorities and the regulatory pathway for any such approval, the potential market for the product candidate, the costs and complexities of manufacturing and delivering the product to patients and the potential of competing products. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available for collaboration and whether such a collaboration could be more attractive than the one with us for verekitug or any other potential future product candidates. If we elect to increase our expenditures to fund development or commercialization activities on our own, we may need to obtain additional capital, which may not be available to us on acceptable terms or at all. If we do not have sufficient funds, we may not be able to further develop verekitug or any other potential future product candidates or bring them to market and generate product revenue.

Collaborations are complex and time-consuming to negotiate and document. Further, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators. Any collaboration agreements that we enter into in the future may contain restrictions on our ability to enter into potential collaborations or to otherwise develop specified product candidates. We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of verekitug or any other potential future product candidates for which we are seeking to collaborate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization or reduce the scope of any sales or marketing activities, or increase our expenditures and undertake development or commercialization activities at our own expense.

Our existing research and development arrangement as well as any future collaborations with third parties for the development and commercialization of verekitug or any other potential future product candidates may not be successful, which could adversely affect our ability to advance verekitug or any other potential future product candidates.

We have entered into a research and development arrangement and may in the future enter into collaborations for the development and commercialization of verekitug or any other potential future product candidates. Any collaborations may limit our control over the amount and timing of resources that our collaborators will dedicate to the development or commercialization of verekitug or any other potential future product candidates. Our ability to generate revenues from these arrangements will depend on any future

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collaborators' abilities to successfully perform the functions assigned to them in these arrangements. For example, we granted Maruho Co., Ltd. ("Maruho") an exclusive, irrevocable, perpetual, royalty-free, sublicensable license for the development and commercialization of verekitug in Japan (the "Maruho License Agreement"). Under the Maruho License Agreement, we are responsible for and control the global research and development of verekitug in Japan. In addition, any future collaborators may have the right to abandon research or development projects and terminate applicable agreements, including funding obligations, prior to or upon the expiration of the agreed upon terms.

Collaborations involving verekitug or any other potential future product candidates pose a number of risks, including the following:

- collaborators have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not perform their obligations as expected;
- collaborators may not pursue development and commercialization of verekitug or any other potential future product candidates or may elect not to continue or renew development or commercialization programs, based on clinical trial results, changes in the collaborators' strategic focus or available funding or external factors, such as an acquisition, which divert resources or create competing priorities;
- collaborators may delay clinical trials, provide insufficient funding for a clinical trial program, stop a clinical trial or abandon verekitug or any other potential future product candidates, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators could independently develop, or develop with third parties, products that compete directly or indirectly with verekitug or any other potential future product candidates;
- a collaborator with marketing and distribution rights to one or more products may not commit sufficient resources to the marketing and distribution of such product or products;
- disagreements with collaborators, including disagreements over proprietary rights, including trade secrets and intellectual property rights, contract interpretation, or the preferred course of development might cause delays or termination of the research, development or commercialization of verekitug or any other potential future product candidates, might lead to additional responsibilities for us with respect to such product candidate, or might result in litigation or arbitration, any of which would be time-consuming and expensive;
- collaborators 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;
- collaborators may infringe the intellectual property rights of third parties, which may expose us to litigation and potential liability; and
- collaborations may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidate.

Collaboration agreements may not lead to development or commercialization of verekitug or any other potential future product candidates in the most efficient manner or at all. If any future collaborator of ours is involved in a business combination, it could decide to delay, diminish or terminate the development or commercialization of verekitug or any other potential future product candidates licensed to it by us.

Our use of third parties to manufacture verekitug or any other potential future product candidates may increase the risk that we will not have sufficient quantities of verekitug or any other potential future product candidates, raw materials, active pharmaceutical ingredients (“APIs”) or drug products when needed or at an acceptable cost.

We do not own or operate manufacturing facilities for the production of clinical or commercial quantities of verekitug or any other potential future product candidates, and we lack the resources and the capabilities to do so. Our current strategy is to outsource all manufacturing of verekitug or any other potential future product candidates to third parties.

We currently rely on and engage third-party manufacturers to provide all of the APIs and the final drug product formulation of verekitug that is being used in our clinical trials and preclinical studies. Although we believe that there are several potential alternative manufacturers who could manufacture verekitug, we primarily rely on one manufacturer, WuXi Biologics (Hong Kong) Limited (“WuXi”), for the production of product necessary to complete our ongoing clinical trials. If a replacement manufacturer becomes necessary in the future, we may incur added costs and delays in identifying and qualifying another manufacturer. There have been Congressional legislative proposals, such as the bill titled the BIOSECURE Act, which would, among other things, prohibit U.S. federal funding in connection with biotechnology equipment or services produced or provided by certain named Chinese “biotechnology companies of concern” (which includes WuXi) and loans and grants to, and federal contracts with any entity that uses biotechnology equipment or services from one of these entities in performance of the government contract, grant, or loan. The legislation also gives the federal government the authority to name additional “biotechnology companies of concern” that are engaged in research activities with the Chinese government and that pose a risk of U.S. national security. We continue to monitor the status of the BIOSECURE Act, the implementation of which could materially impact our agreement with WuXi.

In addition, we typically order raw materials, APIs and drug product and services on a purchase order basis and do not enter into long-term dedicated capacity or minimum supply arrangements with any commercial manufacturer. We may not be able to timely secure needed supply arrangements on satisfactory terms, or at all. Our failure to secure these arrangements as needed could have a material adverse effect on our ability to complete the development of verekitug or any other potential future product candidates or, to commercialize them, if approved. We may be unable to conclude agreements for commercial supply with third-party manufacturers or may be unable to do so on acceptable terms. There may be difficulties in scaling up to commercial quantities and formulation of verekitug or any other potential future product candidates, and the costs of manufacturing could be prohibitive.

If our manufacturers have difficulty or suffer delays in successfully manufacturing material that meets our specifications, it may limit supply of verekitug or any other potential future product candidates and could delay our clinical trials. For example, during routine evaluation of drug samples as part of stability testing of material produced by a previous manufacturing process, particles were observed. This resulted in a brief pause in dosing in our Phase 1b MAD clinical trial of verekitug for the treatment of asthma while a standard investigation was conducted, after which dosing resumed. We cannot assure you that similar or longer delays will not be necessary in the future.

Even if we are able to establish and maintain arrangements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- the failure of the third-party manufacturer to comply with applicable regulatory requirements and reliance on third parties for manufacturing process development, regulatory compliance and quality assurance;

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- manufacturing delays if our third-party manufacturers give greater priority to the supply of other products over verekitug or any other potential future product candidates or otherwise do not satisfactorily perform according to the terms of the agreement between us;
- limitations on supply availability resulting from capacity and scheduling constraints of third parties;
- the possible breach of manufacturing agreements by third parties because of factors beyond our control;
- the possible termination or non-renewal of the manufacturing agreements by the third party, at a time that is costly or inconvenient to us; and
- the possible misappropriation of our proprietary information, including our trade secrets and know-how.

If we are unable to maintain our key manufacturing relationships, we may fail to find replacement manufacturers or develop our own manufacturing capabilities, which could delay or impair our ability to obtain regulatory approval for verekitug or any other potential future product candidates. If we do find replacement manufacturers, we may not be able to enter into agreements with them on terms and conditions favorable to us and there could be a substantial delay before new facilities could be qualified and registered with the FDA and comparable foreign regulatory authorities.

Additionally, if any third-party manufacturer with whom we contract fails to perform its obligations, we may be forced to manufacture the materials ourselves, for which we may not have the capabilities or resources, or enter into an agreement with a different manufacturer. In either scenario, our clinical trials supply could be delayed significantly as we establish alternative supply sources. In some cases, the technical skills required to manufacture verekitug or any other potential future product candidates may be unique or proprietary to the original manufacturer and we may have difficulty, or there may be contractual restrictions prohibiting us from, transferring such skills to a back-up or alternate supplier, or we may be unable to transfer such skills at all. In addition, if we are required to change third-party manufacturers for any reason, we will be required to verify that the new manufacturer maintains facilities and procedures that comply with quality standards and with all applicable regulations. We will also need to verify, such as through a manufacturing comparability study, that any new manufacturing process will produce verekitug or any other potential future product candidates according to the specifications previously submitted to the FDA, the EMA and the European Commission, or another comparable foreign regulatory authority. We may be unsuccessful in demonstrating the comparability of clinical supplies, which could require the conduct of additional clinical trials. The delays associated with the verification of a new third-party manufacturer could negatively affect our ability to develop or commercialize verekitug or any other potential future product candidates in a timely manner or within budget. Furthermore, a third-party manufacturer may possess technology related to the manufacture of verekitug or any other potential future product candidates that such third party owns independently. This would increase our reliance on such third-party manufacturer or require us to obtain a license from such third-party manufacturer in order to have another third party manufacture verekitug or any other potential future product candidates.

If verekitug is approved by any regulatory authority, we intend to utilize arrangements with third-party contract manufacturers for the commercial production of that product. This process is difficult and time consuming and we may face competition for access to manufacturing facilities as there are a limited number of contract manufacturers operating under cGMPs that are capable of manufacturing verekitug. Consequently, we may not be able to reach agreement with third-party manufacturers on satisfactory terms, which could delay our commercialization.

Some of our manufacturers are located outside of the United States. There is currently significant uncertainty about the future relationship between the United States and various other countries, including China, with respect to trade policies, treaties, government regulations and tariffs. It is possible further tariffs may be

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imposed that could affect imports of APIs used in verekitug or any other potential future product candidates, or our business may be adversely impacted by retaliatory trade measures taken by China or other countries, including restricted access to such raw materials used in verekitug or any other potential future product candidates. Given the unpredictable regulatory environment in China and the United States and uncertainty regarding how the U.S. or foreign governments will act with respect to tariffs, international trade agreements and policies, further governmental action related to tariffs, additional taxes, contracting matters, regulatory changes or other retaliatory trade measures in the future could occur with a corresponding detrimental impact on our business, financial condition, results of operations and growth prospects.

Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including shutdown of the third-party vendor or rejection of drug product lots or processes, clinical holds, fines, injunctions, civil penalties, delays, suspension, variation or withdrawal of approvals, license revocation, seizures or voluntary recalls of product candidates or drugs if approved, operating restrictions and criminal prosecutions, any of which could significantly affect supplies of verekitug or any other potential future product candidates. The facilities used by our contract manufacturers to manufacture verekitug or any other potential future product candidates must be evaluated by the FDA and comparable foreign regulatory authorities. We have limited control over the manufacturing process of, and are dependent on, our contract manufacturing partners for compliance with cGMPs. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA, the European Union, or other comparable foreign regulatory authorities, we may not be able to secure and/or maintain regulatory approval for verekitug or any other potential future product candidates manufactured at these facilities. In addition, we limited control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or a comparable foreign regulatory authority finds deficiencies or does not approve these facilities for the manufacture of verekitug or any other potential future product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market verekitug or any other potential future product candidates, if approved. Contract manufacturers may face manufacturing or quality control problems causing drug substance production and shipment delays or a situation where the contractor may not be able to maintain compliance with the applicable cGMP requirements. Any failure to comply with cGMP requirements or other FDA, European Union, and comparable foreign regulatory requirements could adversely affect our clinical research activities and our ability to develop, and if approved, market verekitug or any other potential future product candidates.

The FDA and comparable foreign regulatory authorities require manufacturers to register manufacturing facilities. The FDA and corresponding foreign regulators also inspect these facilities to confirm and monitor compliance with cGMPs.

If any third-party manufacturer of verekitug or any other potential future product candidates is unable to increase the scale of its production or the product yield of its manufacturing, then our manufacturing costs may increase and commercialization may be delayed.

In order to produce sufficient quantities to meet the demand for clinical trials and, if approved, subsequent commercialization of verekitug or any other potential future product candidates, our third-party manufacturers will be required to increase their production and optimize their manufacturing processes while maintaining the quality of verekitug or any other potential future product candidates. The transition to larger scale production could prove difficult. In addition, if our third-party manufacturers are not able to optimize their manufacturing processes to increase the product yield for verekitug or any other potential future product candidates, or if they are unable to produce increased amounts of verekitug or any other potential future product candidates while

maintaining the same quality then we may not be able to meet the demands of clinical trials or market demands, which could decrease our ability to generate profits and have a material adverse impact on our business and results of operations.

Changes in methods of product candidate manufacturing or formulation may result in additional costs or delay.

As verekitug or any other potential future product candidates proceed through preclinical studies to late-stage clinical trials towards potential approval and commercialization, it is common that various aspects of the development program, such as the vendors used to manufacture drug product or manufacturing methods and formulation, are altered along the way in an effort to optimize processes and results. Such changes carry the risk that they will not achieve these intended objectives. Any of these changes could cause verekitug or any other potential future product candidates to perform differently and affect the results of planned clinical trials or other future clinical trials conducted with the materials manufactured using altered processes. Such changes may also require additional testing, notification or approval by the FDA, or comparable foreign regulatory authorities. This could delay or prevent completion of clinical trials, require conducting bridging clinical trials or the repetition of one or more clinical trials, increase clinical trial costs, delay or prevent approval of verekitug or any other potential future product candidates and jeopardize our ability to commence sales and generate revenue.

Risks related to Government Regulation

Obtaining and maintaining regulatory approval of verekitug or any other potential future product candidates in one jurisdiction does not mean that we will be successful in obtaining regulatory approval in other jurisdictions.

Obtaining and maintaining regulatory approval of verekitug or any other potential future product candidates in one jurisdiction does not guarantee that we will be able to obtain or maintain regulatory approval in any other jurisdiction, while a failure or delay in obtaining regulatory approval in one jurisdiction may have a negative effect on the regulatory approval process in others. For example, even if the FDA grants marketing approval of a product candidate, the European Commission, or other comparable foreign regulatory authorities must also approve the manufacturing and marketing of the product candidate in those territories. Approval procedures vary among jurisdictions and can involve requirements and administrative review periods different from, and greater than, those in the United States, including additional preclinical studies or clinical trials, as clinical trials conducted in one jurisdiction may not be accepted by regulatory authorities in other jurisdictions. In many jurisdictions outside the United States, a product candidate must be approved for reimbursement before it can be approved for sale in that jurisdiction. In some cases, the price that we intend to charge for our products is also subject to approval.

We may also submit marketing applications in other countries. Regulatory authorities in jurisdictions outside of the United States have requirements for approval of product candidates with which we must comply prior to marketing in those jurisdictions. Obtaining foreign regulatory approvals and compliance with foreign regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our products in certain countries. If we fail to comply with the regulatory requirements in international markets and/or receive applicable marketing approvals, our target market will be reduced and our ability to realize the full market potential of verekitug or any other potential future product candidates will be harmed.

Even if we receive regulatory approval of verekitug or any other potential future product candidates, we will be subject to ongoing regulatory obligations and continued regulatory review, which may result in significant additional expense and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with verekitug or any other potential future product candidates.

If verekitug or any other potential future product candidates are approved, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies and submission of safety, efficacy and other post-market information, including both federal and state requirements in the United States and requirements of comparable foreign regulatory authorities. In addition, we will be subject to continued compliance with cGMP and GCP requirements for any clinical trials that we conduct post-approval.

Manufacturers and manufacturers' facilities are required to comply with extensive FDA, European Union, and comparable foreign regulatory requirements, including ensuring that quality control and manufacturing procedures conform to cGMP regulations and applicable product tracking and tracing requirements. As such, we and our contract manufacturers will be subject to continual review and inspections to assess continuous compliance with cGMP and adherence to commitments made in any BLA, other marketing application and previous responses to inspection observations. Accordingly, we and others with whom we work must continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

Any regulatory approvals that we receive for verekitug or any other potential future product candidates may be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials and surveillance to monitor the safety and efficacy of the product candidate. Certain endpoint data we hope to include in any approved product labeling also may not make it into such labeling, including exploratory or secondary endpoint data such as patient-reported outcome measures. The FDA may also require Risk Evaluation and Mitigation Strategies ("REMS") as a condition of approval of verekitug or any other potential future product candidates, which could entail requirements for long-term patient follow-up, a medication guide, physician communication plans or additional elements to ensure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Comparable requirements may apply in foreign countries. In addition, if the FDA, the European Commission, or a comparable foreign regulatory authority approves verekitug or any other potential future product candidates, we will have to comply with requirements including submissions of safety and other post-marketing information and reports and registration.

The FDA or comparable foreign regulatory authorities may impose consent decrees or withdraw or vary 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 verekitug or any other potential future product candidates, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in 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 restrictions or other restrictions under a REMS program or a comparable foreign program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of our products, withdrawal of the product from the market or voluntary product recalls;
- fines, warning letters or holds on clinical trials;

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- refusal by the FDA or comparable foreign regulatory authorities to approve pending applications or supplements to approved applications filed by us or suspension, variation or withdrawal of approvals;
- product seizure or detention or refusal to permit the import or export of verekitug or any other potential future product candidates;
- total or partial suspension of production, distribution, manufacturing or clinical trials;
- operating restrictions;
- suspension of licenses; and
- injunctions, fines or the imposition of civil or criminal penalties.

Additionally, the FDA and comparable foreign regulatory authorities strictly regulate marketing, labeling, advertising and promotion of products that are placed on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label.

The policies of the FDA, the EMA, and the European Commission, and comparable foreign regulatory authorities may change and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of verekitug or any other potential future product candidates. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. For more information, see the section titled “Business—Government regulation.”

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.

Verekitug or any other potential future product candidates for which we intend to seek approval as biological products may face competition sooner than anticipated.

The Biologics Price Competition and Innovation Act of 2009 (the “BPCIA”) created an abbreviated approval pathway for biological products that are biosimilar to or interchangeable with an FDA-licensed reference biological product. Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date that the reference product was first licensed by the FDA. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still market a competing version of the reference product if the FDA approves a full BLA for the competing product containing the sponsor’s own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of its product.

We believe any of our potential future product candidates approved as a biological product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to Congressional action or otherwise, or that the FDA will not consider verekitug or any other potential future product candidates to be reference products for competing products, potentially creating the opportunity for biosimilar competition sooner than anticipated. Moreover, the extent to which a biosimilar, once approved, could be substituted for any one of our reference products in a way that is similar to traditional generic substitution for non-biological products will depend on a number of marketplace and regulatory factors that are still developing.

In the European Union, there is a special regime for biosimilars, or biological medicinal products that are similar to a reference medicinal product but that do not meet the definition of a generic medicinal product. For

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such products, the results of appropriate preclinical or clinical trials must be provided in support of an application. Guidelines from the EMA detail the type of quantity of supplementary data to be provided for different types of biological product.

While we may in the future seek designations for verekitug or any other potential future product candidates with the FDA and comparable foreign regulatory authorities that are intended to confer benefits such as a faster development process, an accelerated regulatory pathway or regulatory exclusivity, there can be no assurance that we will successfully obtain such designations. In addition, even if verekitug or any other potential future product candidates are granted such designations, we may not be able to realize the intended benefits of such designations.

The FDA and comparable foreign regulatory authorities offer certain designations for product candidates that are designed to encourage the research and development of product candidates that are intended to address conditions with significant unmet medical need. These designations may confer benefits such as additional interaction with regulatory authorities, a potentially accelerated regulatory pathway and priority review. However, there can be no assurance that we will successfully obtain such designations for verekitug or any other potential future product candidates. In addition, while such designations could expedite the development or approval process, they generally do not change the standards for approval. Even if we obtain such designations for verekitug or any other potential future product candidates, there can be no assurance that we will realize their intended benefits.

For example, we may seek a Fast Track Designation for verekitug or any other potential future product candidates we develop. If a product is intended for the treatment of a serious or life-threatening condition and preclinical or clinical data demonstrate the potential to address an unmet medical need for this condition, the product sponsor may apply for Fast Track Designation. The FDA has broad discretion whether or not to grant this designation, so even if we believe a particular product candidate is eligible for this designation, we cannot assure you that the FDA would decide to grant it. Even if we do receive Fast Track Designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may rescind the Fast Track Designation if it believes that the designation is no longer supported by data from our clinical development activities.

We also may seek Breakthrough Therapy Designation for verekitug or any other potential future product candidates we 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 currently approved 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 are also eligible for accelerated approval and priority review.

Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe a product candidate we develop meets the criteria for designation as a breakthrough therapy, the FDA may disagree and instead determine not to make such designation. In any event, the receipt of Breakthrough Therapy Designation for a product candidate may not result in a faster development process, review or approval compared to drugs considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if any product candidate we develop qualifies as a breakthrough therapy, the FDA may later decide that the drug no longer meets the conditions for qualification and rescind the designation.

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Even in the absence of obtaining fast track and/or breakthrough therapy designations, a sponsor can seek priority review at the time of submitting a marketing application. The FDA may designate a product for priority review if it is a product that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting adverse reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes, or evidence of safety and effectiveness in a new subpopulation. A priority review designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA's goal for taking action on a marketing application from ten months to six months. Priority review designation may be rescinded if a product no longer meets the qualifying criteria.

We may be unsuccessful in obtaining or may be unable to maintain the benefits associated with orphan drug designation, including the potential for market exclusivity.

Under the Orphan Drug Act, 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 annually in the United States, or a patient population greater than 200,000 in the United States where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the U.S. 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.

Similarly, in the EU, a medicinal product can be designated as an orphan medicinal product by the European Commission if its sponsor can establish that: (i) the product is intended for the diagnosis, prevention or treatment of life-threatening or chronically debilitating conditions; (ii) either (a) such conditions affect not more than 5 in 10,000 persons in the EU when the application is made, or (b) the product without the benefits derived from orphan status, would not generate sufficient return in the EU to justify the necessary investment in developing the medicinal product; and (iii) there exists no satisfactory authorized method of diagnosis, prevention, or treatment of the condition that has been authorized in the EU, or even if such method exists, the product will be of significant benefit to those affected by that condition. In the EU, orphan medicinal product designation entitles a party to incentives such as reduction of fees or fee waivers protocol assistance, and access to the centralized marketing authorization procedure.

Generally, if a product with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, the drug is entitled to a period of marketing exclusivity, which precludes the FDA from approving another marketing application for the same product and indication for that time period, except in limited circumstances. In the EU, marketing exclusivity prevents the EMA from accepting another marketing authorization application or accepting an application to extend for a similar product and the European Commission cannot grant a marketing authorization for the same indication. The applicable period is seven years in the U.S. and ten years in the EU. The EU exclusivity period is extended by two years for orphan medicinal products that have also complied with an agreed Pediatric Investigation Plan. However, the EU exclusivity period can be reduced to six years, if at the end of the fifth, it is established that a product no longer meets the criteria on the basis of which it received orphan medicinal product designation, including where it can be demonstrated on the basis of available evidence that the product is sufficiently profitable so that market exclusivity is no longer justified or where the prevalence of the condition has increased above the threshold.

Even if we obtain orphan drug exclusivity for a drug, that exclusivity may not effectively protect the designated drug from competition because different drugs can be approved for the same condition. Even after an orphan drug is approved, the FDA or the European Commission can subsequently approve the same drug for the same condition if the FDA or the European Commission concludes that the later drug is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care.

Where appropriate, we may secure approval from the FDA, the European Commission or other comparable foreign regulatory authorities through the use of expedited approval pathways, such as accelerated approval or comparable foreign abbreviated pathways. If we are unable to obtain such approvals, we may be required to conduct additional preclinical studies or clinical trials beyond those that we contemplate, which could increase the expense of obtaining, and delay the receipt of, necessary marketing approvals. Even if we receive accelerated approval from the FDA or approval following comparable foreign abbreviated pathways by foreign regulatory authorities, if our confirmatory trials do not verify clinical benefit, or if we do not comply with rigorous post-marketing requirements, the FDA or such comparable foreign regulatory authorities may seek to withdraw the accelerated approval.

Where possible, we plan to pursue accelerated development strategies in areas of high unmet need. We may seek an accelerated approval pathway for our one or more of our potential future product candidates from the FDA, EMA or other comparable foreign regulatory authorities. Under the accelerated approval provisions in the Federal Food, Drug, and Cosmetic Act, and the FDA's implementing regulations, the FDA may grant accelerated approval to a product candidate designed to treat a serious or life-threatening condition that provides meaningful therapeutic benefit over available therapies upon a determination that the product candidate has an effect on a surrogate endpoint or intermediate clinical endpoint that is reasonably likely to predict clinical benefit. The FDA considers a clinical benefit to be a positive therapeutic effect that is clinically meaningful in the context of a given disease, such as irreversible morbidity or mortality. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. An intermediate clinical endpoint is a clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit. The accelerated approval pathway may be used in cases in which the advantage of a new drug over available therapy may not be a direct therapeutic advantage but is a clinically important improvement from a patient and public health perspective. 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 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 status updates on such studies to the FDA every 180 days to be publicly posted by the agency, or if such post-approval studies fail to verify the drug's predicted clinical benefit. 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.

Prior to seeking accelerated approval, or approval following comparable foreign abbreviated pathways, we would seek feedback from the FDA or other comparable foreign regulatory authorities and would otherwise evaluate our ability to seek and receive such accelerated approval or approval following comparable foreign abbreviated pathways. There can be no assurance that after our evaluation of the feedback and other factors we will decide to pursue or submit a BLA for accelerated approval or any other form of expedited development, review or approval. Similarly, there can be no assurance that after subsequent feedback from the FDA, or other comparable foreign regulatory authorities, we will continue to pursue or apply for accelerated approval or any other form of expedited development, review or approval, even if we initially decide to do so. Furthermore, if we decide to submit an application for accelerated approval, or comparable foreign abbreviated pathways, there can be no assurance that such application will be accepted or that any approval will be granted on a timely basis, or at all. The FDA, the EMA, or the European Commission, or other comparable foreign regulatory authorities could also require us to conduct further studies prior to considering our application or granting

approval of any type, including, for example, if other products are approved via the accelerated pathway, or comparable foreign abbreviated pathway, and subsequently converted by FDA or comparable foreign regulatory authorities to full approval. A failure to obtain accelerated approval or any other form of expedited development, review or approval for our product candidate would result in a longer time period to commercialization of such product candidate, could increase the cost of development of such product candidate and could harm our competitive position in the marketplace.

Our relationships with healthcare professionals and physicians and third-party payors will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

It is possible that governmental and enforcement authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law interpreting applicable fraud and abuse or other healthcare laws and regulations. Healthcare professionals, physicians and third-party payors in the United States and elsewhere play a primary role in the recommendation and prescription of pharmaceutical products. Arrangements with third-party payors and customers can expose pharmaceutical manufacturers to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we conduct research and would sell, market and distribute our products. As a pharmaceutical company, even though we do not and will not control referrals of healthcare services or bill directly to Medicare, Medicaid or other third-party payors, supranational, national, federal and state healthcare laws and regulations that may affect our ability to operate may apply. For more information on healthcare laws and regulations that may impact our company, see the section titled “Business—Government regulation—Other healthcare laws.”

The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform, especially in light of the lack of applicable precedent and regulations. Federal and state enforcement bodies have recently increased their scrutiny of interactions between healthcare companies and healthcare professionals, which has led to a number of investigations, prosecutions, convictions and settlements in the healthcare industry. Ensuring business arrangements comply with applicable healthcare and privacy laws, as well as responding to possible investigations by government authorities, can be time and resource-consuming and can divert a company’s attention from the business.

Ensuring that our internal operations and future 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 or other competent authority 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 these laws or any other governmental laws and regulations that may apply to us, we may be subject to significant penalties, including administrative, civil and criminal penalties, damages, fines, disgorgement, the exclusion from participation in federal and state healthcare programs, individual imprisonment, reputational harm and the curtailment or restructuring of our operations, as well as additional reporting obligations and oversight if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with these laws. Further, defending against any such actions can be costly and time consuming, and may require significant financial and personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired. If any of the physicians or other professionals or entities with whom we expect to do business is found to not be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government

funded healthcare programs and imprisonment. If any of the above occur, our ability to operate our business and our results of operations could be adversely affected.

Coverage and reimbursement may be limited or unavailable in certain market segments for verekitug or any other potential future product candidates, if approved, which could make it difficult for us to sell them profitably.

The success of verekitug or any other potential future product candidates, if approved, depends on the availability of coverage and adequate reimbursement from third-party payors. Patients who are provided medical treatment for their conditions generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Coverage and adequate reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance.

Government authorities and other third-party payors, such as private health insurers and health maintenance organizations, decide which drugs and treatments they will cover and the amount of reimbursement. Coverage and reimbursement by a third-party payor may depend upon a number of factors, including the third-party payor's determination that use of a product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

In the United States, no uniform policy of coverage and reimbursement for products exists among third-party payors, and the principal decisions about reimbursement for new medicines are typically made by the Centers for Medicare & Medicaid Services ("CMS"). CMS decides whether and to what extent a new medicine will be covered and reimbursed under Medicare and private payors tend to follow CMS to a substantial degree. Even if we obtain coverage for a given product, the resulting reimbursement payment rates might not be adequate for us to achieve or sustain profitability or may require co-payments that patients find unacceptably high. Additionally, third-party payors may not cover, or provide adequate reimbursement for, long-term follow-up evaluations required following the use of product candidates, once approved. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for verekitug or any other potential future product candidates. Even if we do receive a favorable coverage determination for our products by third-party payors, coverage policies and third-party payor reimbursement rates may change at any time.

Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. 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. We cannot be sure that reimbursement will be available for verekitug or any other potential future product candidates that we commercialize and, if reimbursement is available, the level of reimbursement. In addition, many pharmaceutical manufacturers must calculate and report certain price reporting metrics to the government, such as average sales price and best price. Penalties may apply in some cases when such metrics are not submitted accurately and timely. Further, these prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs. Payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives.

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Moreover, increasing efforts by governmental and other third-party payors in the United States and abroad 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 for verekitug or any other potential future product candidates. There has been increasing legislative and enforcement interest in the United States with respect to specialty drug pricing practices. Specifically, there have been several recent U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, review the relationship between pricing and manufacturer patient programs and reform government program reimbursement methodologies for drugs. At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing.

We expect that healthcare reform measures that may be adopted in the future may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved product. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability, or commercialize our products. Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals or clearances of verekitug or any other potential future product candidates, if any, may be.

In addition, in some foreign countries, the proposed pricing for a product must be approved before it may be lawfully marketed. The requirements governing product pricing vary widely from country to country. 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. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost effectiveness of a particular product candidate to currently available therapies. 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. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for verekitug or any other potential future product candidates. Historically, products launched in the European Union do not follow price structures of the United States and generally prices tend to be significantly lower.

For more information on the laws and regulations that may impact coverage and reimbursement of verekitug or any other potential future product candidates, see the section titled “Business—Government regulation—Coverage and reimbursement.”

Ongoing healthcare legislative and regulatory reform measures may have a material adverse effect on our business and results of operations.

Changes in regulations, statutes or the interpretation of existing regulations could impact our business in the future by requiring, for example, (1) changes to our manufacturing arrangements, (2) additions or modifications to product labeling, (3) the recall or discontinuation of our products or (4) additional record-keeping requirements. If any such changes were to be imposed, they could adversely affect the operation of our business. See the sections titled “Business—Government regulation—Coverage and reimbursement” and “—Healthcare reform.”

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The containment of healthcare costs has become a priority of federal, state and foreign governments, and the prices of products have been a focus in this effort. There have been a number of federal and state proposals during the last few years regarding the pricing of pharmaceutical products, limiting coverage and the amount of reimbursement for drugs and other medical products, government control and other changes to the healthcare system in the United States. Governments have shown significant interest in implementing cost-containment programs, including price controls, restrictions on reimbursement and requirements for substitution of generic 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 our revenue generated from the sale of any approved products.

Moreover, payment methodologies may be subject to changes in healthcare legislation and regulatory initiatives. For example, CMS may develop new payment and delivery models, such as bundled payment models. In addition, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their commercial products, which has resulted in several Congressional inquiries and proposed and enacted state and federal legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient programs, and reform government program reimbursement methodologies for pharmaceutical products. Congress has indicated that it will continue to seek new legislative measures to control drug costs.

In December 2021, Regulation No 2021/2282 on Health Technology Assessment (“HTA”) amending Directive 2011/24/EU, was adopted in the EU. This Regulation, which entered into force in January 2022 and will apply in January 2025, is intended to boost cooperation among EU Member States in assessing health technologies, including new medicinal products, and providing the basis for cooperation at EU level for joint clinical assessments in these areas. The Regulation foresees a three-year transitional period and will permit EU Member States to use common HTA tools, methodologies, and procedures across the EU, working together in four main areas, including joint clinical assessment of the innovative health technologies with the most potential impact for patients, joint scientific consultations whereby developers can seek advice from HTA authorities, identification of emerging health technologies to identify promising technologies early, and continuing voluntary cooperation in other areas. Individual EU Member States will continue to be responsible for assessing non-clinical (e.g., economic, social, ethical) aspects of health technologies, and making decisions on pricing and reimbursement.

These laws, and future supranational, national state and federal healthcare reform measures may be adopted in the future, any of which may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices we may obtain for verekitug or any other potential future product candidates for which we may obtain regulatory approval or the frequency with which any such product candidate is prescribed or used.

Our employees, independent contractors, consultants, and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk of employee fraud or other illegal activity by our current and any future employees, independent contractors, consultants, contract manufacturing organizations, CROs and vendors. Misconduct by these parties could include intentional, reckless, and/or negligent conduct that fails to comply with FDA or other regulations, provide true, complete and accurate information to the FDA, the national competent authorities of individual EU Member States, and other comparable foreign regulatory authorities, comply with manufacturing standards we may establish, comply with healthcare fraud and abuse laws and regulations, report financial information or data accurately, or disclose unauthorized activities to us. If we obtain FDA approval of verekitug or any other potential future product candidates and begin commercializing those products in the United States, our potential exposure under these laws will increase significantly, and our costs associated with compliance with these laws are likely to increase. Employee misconduct could also involve the

improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. Additionally, we are subject to the risk that a person could allege such fraud or other misconduct, even if none occurred. It is not always possible to identify and deter employee misconduct, 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. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a material and adverse effect on our business, financial condition, results of operations and growth prospects.

Off-label use or misuse of verekitug or any other potential future product candidates may harm our reputation in the marketplace or result in injuries that lead to costly product liability suits.

If verekitug or any other potential future product candidates are approved by the FDA, we may only promote or market them in a manner consistent with their FDA-approved labeling. We will train our marketing and sales force against promoting verekitug or any other potential future product candidates for uses outside of the approved indications for use, known as “off-label uses.” We cannot, however, prevent a physician from verekitug or any other potential future product candidates off-label, when in the physician’s independent professional medical judgment he or she deems it appropriate. Furthermore, the use of verekitug or any other potential future product candidates for indications other than those approved by the FDA may not effectively treat such conditions. Any such off-label use of verekitug or any other potential future product candidates could harm our reputation in the marketplace among physicians and patients. There may also be increased risk of injury to patients if physicians attempt to use verekitug or any other potential future product candidates for these uses for which they are not approved, which could lead to product liability suits that might require significant financial and management resources and that could harm our reputation. Similar requirements and considerations apply abroad.

Inadequate funding for the FDA, other government agencies or comparable foreign regulatory authorities could hinder their ability to hire and retain key leadership and other personnel, prevent new products and services from being developed or commercialized in a timely manner or otherwise prevent those agencies from performing normal business functions on which the operation of our business may rely, which could negatively impact our business.

The ability of the FDA or comparable foreign regulatory authorities 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 or comparable foreign regulatory authorities on which our operations may rely, including those that fund research and development activities, is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA, other government agencies or comparable foreign regulatory authorities may also slow the time necessary for new drugs to be reviewed and/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, including as a result of reaching the debt ceiling, 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. Further, future government shutdowns could impact our ability to access the public markets and obtain necessary capital in order to properly capitalize and continue our operations.

EU drug marketing and reimbursement regulations may materially affect our ability to market and receive coverage for our products in the EU Member States.

We intend to seek approval to market verekitug or any other potential future product candidates in both the United States and in selected foreign jurisdictions. If we obtain approval in one or more foreign jurisdictions for verekitug or any other potential future product candidates, we will be subject to rules and regulations in those jurisdictions. In some foreign countries, particularly those in the European Union, the pricing of products is subject to governmental control and other market regulations which could put pressure on the pricing and usage of verekitug or any other potential future product candidates. In these countries, pricing negotiations with governmental authorities can take considerable time after obtaining marketing approval of a product candidate. In addition, market acceptance and sales of verekitug or any other potential future product candidates will depend significantly on the availability of adequate coverage and reimbursement from third-party payors for them and may be affected by existing and future healthcare reform measures.

Much like the federal Anti-Kickback Statute prohibition in the United States, the provision of benefits or advantages to physicians and other healthcare professionals to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order or use of medicinal products is also prohibited in the European Union. Interactions between pharmaceutical companies and healthcare professionals, including the provision of benefits or advantages, are governed by strict laws, such as national anti-bribery laws of individual EU Member States and the Bribery Act 2010 in the United Kingdom, national sunshine rules, regulations, industry self-regulation codes of conduct and physicians' codes of professional conduct. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment. Infringement of these laws could result in substantial fines and imprisonment.

Payments made to physicians and other healthcare professionals in certain EU Member States must be publicly disclosed. Moreover, agreements with physicians often may require prior notification or approval by the healthcare professional's employer, his or her competent professional organization and/or the regulatory authorities of the individual EU Member States. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

In addition, in some foreign countries, including some countries in the European Union, the proposed pricing for a product must be approved before it may be lawfully marketed. The requirements governing product pricing and reimbursement vary widely from country to country. 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. An EU Member State may approve a specific price for the medicinal product, it may refuse to reimburse a product at the price set by the manufacturer 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. Many EU Member States also periodically review their reimbursement procedures for medicinal products, which could have an adverse impact on reimbursement status. We expect that legislators, policymakers and healthcare insurance funds in the individual EU Member States will continue to propose and implement cost-containing measures, such as lower maximum prices, lower or lack of reimbursement coverage and incentives to use cheaper, usually generic, products as an alternative to branded products, and/or branded products available through parallel import to keep healthcare costs down. Moreover, in order to obtain reimbursement for our products in some European countries, including some EU Member States, we may be required to compile additional data comparing the cost-effectiveness of our products to other available therapies. This HTA of medicinal products is becoming an increasingly common part of the pricing and reimbursement procedures in some EU Member States, including those representing the larger markets. The HTA process is the procedure to assess therapeutic, economic and societal impact of a given medicinal product in the national healthcare systems of the individual country. The outcome of an HTA will often influence the pricing and reimbursement status granted to these medicinal products by the

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competent authorities of individual EU Member States. The extent to which pricing and reimbursement decisions are influenced by the HTA of the specific medicinal product currently varies between EU Member States. Reference pricing used by various EU Member States and parallel distribution, or arbitrage between low-priced and high-priced EU Member States, can further reduce prices. There can be no assurance that any country that has price controls or reimbursement limitations for biopharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the European Union do not follow price structures of the United States and generally prices tend to be significantly lower. Publication of discounts by third-party payors or authorities may lead to further pressure on the prices or reimbursement levels within the country of publication and other countries. If pricing is set at unsatisfactory levels or if reimbursement of our products is unavailable or limited in scope or amount, our revenues from sales and the potential profitability of verketig or any other potential future product candidates in those countries would be negatively affected.

We are subject to export and import controls, economic sanctions, and anti-corruption laws and regulations of the United States and other jurisdictions. We can face criminal liability and other serious consequences for violations of these laws and regulations, which can harm our business.

We are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, and various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Control. Export controls and trade sanctions laws and regulations may restrict or prohibit altogether the provision, sale, or supply of our products to certain governments, persons, entities, countries, and territories, including those that are the target of comprehensive sanctions or an embargo. We are also subject to anti-corruption and anti-bribery laws, including the U.S. Foreign Corrupt Practices Act of 1977, as amended, the U.S. domestic bribery statute contained in 18 U.S.C. § 201, the U.S. Travel Act, and other state and national anti-bribery laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, contractors, and other partners from authorizing, promising, offering, or providing, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. The FCPA also requires public companies to make and keep books and records that accurately and fairly reflect the transactions of the corporation and to devise and maintain an adequate system of internal accounting controls. We can be held liable for the corrupt or other illegal activities of our employees, agents, contractors, and other partners, even if we do not explicitly authorize or have actual knowledge of such activities. Any violation of the laws and regulations described above may result in substantial civil and criminal fines and penalties, imprisonment, the loss of export or import privileges, debarment, tax reassessments, breach of contract and fraud litigation, reputational harm, and other consequences.

If we or any third-party manufacturer we engage now or in the future fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs or liabilities that could have a material adverse effect on our business.

We and third-party manufacturers we engage now are, and any third-party manufacturer we may engage in the future will be, subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

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Although we maintain general liability insurance as well as workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or commercialization efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

Further, with respect to the operations of our current and any future third-party contract manufacturers, it is possible that if they fail to operate in compliance with applicable environmental, health and safety laws and regulations or properly dispose of wastes associated with our products, we could be held liable for any resulting damages, suffer reputational harm or experience a disruption in the manufacture and supply of verekitug or any other potential future product candidates. In addition, our supply chain may be adversely impacted if any of our third-party contract manufacturers become subject to injunctions or other sanctions as a result of their non-compliance with environmental, health and safety laws and regulations.

Risks related to our intellectual property

Our success is largely based upon our intellectual property and proprietary technologies, and we may be unable to protect and/or enforce our intellectual property.

Our success will depend, in large part, on obtaining and maintaining patent protection and trade secret protection for verekitug or any other potential future product candidates and their formulations and uses, as well as successfully enforcing our patents against third-party infringers and/or defending these patents against third-party challenges. If we (or our licensees should such licensees be granted the right to prosecute or enforce certain patents within our portfolio) fails to appropriately prosecute or is unable to obtain and maintain patent protection for verekitug or any other potential future product candidates (or aspects thereof), our ability to develop, license and/or commercialize these product candidates may be adversely affected and we may not be able to prevent competitors from making, using, selling or importing competing products. This failure or inability to properly or adequately protect the intellectual property rights relating to these product candidates could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

The patent application process is subject to numerous risks and uncertainties, and there can be no assurance that we or our partners will be successful in protecting verekitug or any other potential future product candidates by obtaining, enforcing and defending patents. These risks and uncertainties include the following:

- patent applications may not result in any patent being issued;
- patents that may be issued may not include claims that cover a broad enough scope to prevent design around solutions by competitors;
- patents that may be issued may be challenged, invalidated, modified, revoked, circumvented, found to be unenforceable, or otherwise may not provide adequate barriers to entry or any competitive advantage;
- because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that before a potential product can be commercialized, any related patent may expire, or remain in existence for only a short period following commercialization, reducing, or eliminating any advantage of the patent;

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- our competitors, many of which have substantially greater resources than us or our partners do, and many of which have made significant investments in competing technologies, may seek, or may already have sought or obtained, patents that will limit, interfere with, or eliminate our ability to make, use, and sell our potential products;
- there may be significant pressure on the U.S. government and other international governmental bodies to limit the scope of patent protection for disease treatments that prove successful as a matter of public policy regarding worldwide health concerns;
- countries other than the United States may have patent laws less favorable to patentees than those upheld by United States courts, allowing foreign competitors a better opportunity to create, develop, and market competing products; and
- we may be involved in lawsuits to protect or enforce our patents or the patents we have rights to enforce, which could be expensive, time consuming and/or unsuccessful.

In addition to patents, we also rely on trade secrets and proprietary know-how. Although we have taken steps to protect our trade secrets and unpatented know-how, including entering into confidentiality agreements with third parties, and confidential information and assignment agreements with employees, consultants, and advisors, there exists the potential that third parties may still somehow obtain this information or arrive at the same or similar information independently, which would reduce or eliminate our competitive advantage. Moreover, we may become subject to claims that we directly or indirectly (through our consultants, advisors, or independent contractors that we may engage to assist us in developing verokitug or any other potential future product candidates) have wrongfully or inadvertently disclosed, acquired or used trade secrets or other proprietary information of third parties.

We may be forced to litigate to enforce or defend our intellectual property rights.

We may be forced to litigate to enforce or defend our intellectual property rights against infringement by competitors, and to protect our trade secrets against unauthorized use. In so doing, we may place our intellectual property at risk of being invalidated, rendered unenforceable, or limited or narrowed in scope such that we may no longer be used to adequately prevent the manufacture, sale or import of competitive product. Further, an adverse result in any litigation or other proceedings before government agencies such as the United States Patent and Trademark Office (the "USPTO"), may place pending applications at risk of non-issuance or limitations in scope. Further, derivation proceedings, entitlement proceedings, ex parte reexamination, inter partes review, post grant review, and opposition proceedings provoked by third parties or brought by the USPTO or any foreign patent authority may be used to challenge the inventorship, ownership, claim scope, or validity of our patents. Additionally, because of the substantial amount of discovery typically required in connection with intellectual property litigation, there is a risk that some of our confidential and proprietary information or trade secrets could be compromised by disclosure during this type of litigation. 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 value of the company. 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 more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

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If we enter into future arrangements involving government funding, and we make inventions as a result of such funding, our intellectual property rights to such discoveries may be subject to the applicable provisions of the Bayh Dole Act of 1980. To the extent any of our current or future intellectual property is generated through the use of U.S. government funding, the provisions of the Bayh Dole Act may similarly apply. Any exercise by the government of certain of our rights could harm our competitive position, business, financial condition, results of operations and growth prospects.

If we or our partners are sued for infringing or misappropriating the intellectual property rights of third parties, it could be costly and time consuming, and an unfavorable outcome in any such litigation could have a material adverse effect on our business.

Our success also depends upon our ability and the ability of us any of our future partners to develop, manufacture, market and sell verekitug or any other potential future product candidates without infringing on the proprietary rights of third parties. Numerous United States and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing products, some of which may be directed at claims that overlap with the subject matter of our intellectual property. Because patent applications can take many years to issue, there may be currently pending applications, now unknown to us, which may later result in issued patents that verekitug or any other potential future product candidates or proprietary technologies may be alleged to infringe upon. Similarly, there may be issued patents relevant to verekitug or any other potential future product candidates of which we are not aware.

In addition, third parties may sue us alleging that we infringe, or have infringed, on their patents. Even if we are successful in defending any claims of infringement, the defense of such claims may be costly and present a time consuming distraction. In the event of a successful claim of infringement against us, we may be required to:

- pay substantial damages and/or ongoing royalty payments;
- stop using some or all of our technologies and methods;
- stop certain research and development efforts;
- develop non infringing products or methods (i.e., develop or design around); and/or
- obtain one or more licenses from third parties for an upfront lump sum, an ongoing royalty, or a combination thereof.

If required, we cannot assure you that we will be able to obtain such licenses on acceptable terms, or at all. If we are sued for infringement, we could encounter substantial delays in the development, manufacture, and commercialization of verekitug or any other potential future product candidates. Any litigation, whether to enforce our patent rights or to defend against allegations that we allegedly infringe on third-party rights, could be costly, time consuming, and may distract management from other important tasks.

As is commonplace in the biotechnology and pharmaceutical industry, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. To the extent our employees are involved in research endeavors that are similar to those which they were involved in at their former place of employment, we may be subject to claims that such employees and/or we have inadvertently or otherwise used or disclosed the alleged trade secrets or other proprietary information of such former employers. Litigation may be necessary to defend against such claims, which could result in substantial costs, be a distraction to management and ultimately have a material adverse effect on us, even if we are successful in defending such claims.

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The biotechnology and pharmaceutical industries have experienced substantial litigation and other proceedings concerning intellectual property rights, and third parties may initiate legal proceedings alleging that we are infringing, misappropriating, or otherwise violating their intellectual property rights, the outcome of which could be uncertain and may prevent, delay, or otherwise interfere with our product discovery and development efforts. Our commercial success depends upon our ability or may depend on the ability of future collaborators to develop, manufacture, market, and sell our products. The biotechnology and pharmaceutical industries are characterized by extensive litigation regarding patents and other intellectual property rights as well as administrative proceedings for challenging patents, including derivation, inter partes review, post grant review, and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. We may be subject to, and may in the future become party to, or threatened with, adversarial proceedings or litigation concerning intellectual property rights with respect to verekitug or any other potential future product candidates we may develop, 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 United States and foreign issued patents and pending patent applications that are owned by third parties exist in the fields in which we are developing verekitug or any other potential future product candidates and infringement claims may be asserted against us or our partners based on existing patents or patents that may be granted in the future, regardless of their merit.

It is not always clear to industry participants, including us, which patents cover various types of therapies, products or their methods of use or manufacture. Moreover, as with many technology-based products, there may be third-party patent applications that, if issued, may include the claims that could be or are construed to cover components of verekitug or any other potential future product candidates. There may also be third-party patents of which we are currently unaware with claims to our technologies, compositions, methods of manufacture or methods of use.

Our ability to commercialize verekitug or any other potential future product candidates in the United States and abroad may be adversely affected if we cannot successfully defend against infringement claims or obtain a license on commercially reasonable terms to relevant third-party patents that cover verekitug or any other potential future product candidates. Even if we have a strong defense and/or believe that third-party intellectual property claims are without merit, there can be no assurance that a court would find in our favor on questions of infringement, validity, enforceability, and/or priority. A court of competent jurisdiction could hold that these third-party patents are valid and enforceable and have been infringed upon, which could materially and adversely affect our ability to commercialize verekitug or any other potential future product candidates or technologies covered by the asserted third-party patents. In order to successfully challenge the validity of any such U.S. patent in federal court, we would need to overcome a presumption of validity. As this burden is a high one requiring us to present clear and convincing evidence as to the invalidity of any such U.S. patent claims, there is no assurance that a court of competent jurisdiction would invalidate the asserted claims of any such U.S. patent. If we are found to be infringing on a third party's intellectual property rights, and we are unsuccessful in demonstrating that any such patents are invalid or unenforceable, we could be required to pay damages and/or an ongoing royalty or obtain a license from such third party to continue developing, manufacturing, and marketing verekitug or any other potential future product candidates and our technologies. 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 such a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to it, and it could require us to pay substantial licensing fees and/or make ongoing royalty payments. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, we may be unable to commercialize verekitug or any other potential future product candidates or such commercialization efforts may be significantly delayed, which could in turn significantly harm our business. While less likely given the high bar required for injunction, we also could be temporarily or permanently forced, including by court order, to cease developing, manufacturing, and

commercializing the infringing technology or product candidates. 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 on a patent or other intellectual property right. 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 growth prospects.

The defense of third-party claims of alleged infringement or misappropriation of a third party's intellectual property rights often involves substantial litigation expense and could also be a substantial diversion of management and employee time and resources from our business. Some third parties may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, financial condition, results of operations and growth prospects. There could also 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, this could have a substantial adverse effect on the price of our common stock.

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

Periodic maintenance fees, renewal fees, annuity fees, and various other government fees on patents and applications are due to be paid to the USPTO and foreign patent agencies outside of the United States over the lifetime of our patents and applications. If, in the future, we in-license patent rights, in the case of any in-licensed patent rights, we generally rely on our licensors to pay these fees due to U.S. and non U.S. patent agencies. For patent rights we own, we may rely on our outside patent counsel and/or annuity services in the United States and foreign countries to monitor these deadlines and to pay these fees when so instructed by us.

The USPTO and foreign patent agencies require compliance with procedural, documentary, fee payment, and other similar provisions, such as the requirement to disclose known prior art, during the patent application process. In the case of any in-licensed patent rights, we will generally depend on our licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property, and for our owned patent applications, we engage counsel and other professionals to help us comply with these requirements. While certain inadvertent lapses can be cured by payment of a late fee, by petition, or by other means in accordance with the applicable rules, there are situations in which non-compliance can result in a partial or complete loss of patent rights in the relevant jurisdiction. In the unlikely event that a non-compliance event were to occur, our competitors might be able to enter the market with similar or identical products or technology given our partial or complete loss of patent rights, which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Patent terms may be inadequate to protect our competitive position on verekitug or any other potential future product candidates for an adequate amount of time.

Patents have a limited lifespan. The terms of individual patents depend upon the legal term for patents in the countries in which they are granted. In most countries, including the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from the earliest non provisional filing date in the applicable country. However, the actual protection afforded by a patent varies from country to country, and also depends upon many factors, including the type of patent, the scope of coverage, the availability of regulatory related extensions, the availability of legal remedies in a particular country and the validity and

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enforceability of the patent, and whether a portion of the patent term has been terminally disclaimed based on other patents. Various extensions including patent term extension and patent term adjustment may be available, but the lives of such extensions, and the protections they afford, are limited. Even if patents covering verekitug or any other potential future product 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 product candidates, patents protecting verekitug or any other potential future product candidates might expire before or shortly after we or our partners commercialize those candidates. As a result, our patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours for an adequate time period.

If we do not obtain sufficient patent term protections for verekitug or any other potential future product candidates, our business may be materially harmed.

Patents have a limited term. In the United States, the statutory expiration of a patent is generally 20 years after it is filed. Additional patent terms may be available through a patent term adjustment process, resulting from USPTO delays during prosecution. Although various extensions may be available, the life of a patent, and the protection it affords, is limited. Even if patents covering verekitug or any other potential future product candidates are obtained, once the patent life has expired for a product candidate, we may be open to competition from generics or biosimilars.

Depending upon the timing, duration, and specifics of FDA regulatory approval of verekitug or any other potential future product candidates, one or more patents issued from U.S. patent applications that we file or those of our future licensors may be eligible for limited patent term restoration under the Drug Price Competition and Patent Term Restoration Act of 1984 (the "Hatch-Waxman Amendments"). The Hatch-Waxman Amendments permit a patent restoration term of up to five years as compensation for patent term lost during the FDA regulatory review process based on the first regulatory approval for a particular drug or biologic. A maximum of one patent may be extended per FDA-approved drug as compensation for the patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of drug approval, and only those claims covering such approved drug product, a method for using it or a method for manufacturing it may be extended. Patent term extension may also be available in certain foreign countries upon regulatory approval of verekitug or any other potential future product candidates.

Despite the possibility of an extension, we may not be granted an extension for which it applies in the United States or any other jurisdiction 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 applicable time or the scope of patent protection afforded could be less than we request.

If we are unable to obtain patent term extension or restoration, or the foreign equivalent, or the term of any such extension is less than we request, our competitors or other third parties may obtain approval of competing drugs following our patent expiration, and our revenue could be reduced, possibly materially. Further, if this occurs, our competitors or other third parties may take advantage of our investment in development and trials by referencing our clinical and preclinical data and launch their drug earlier than might otherwise be the case. Any of the foregoing could materially harm our business, financial condition, results of operations and growth prospects.

Changes in patent law in the United States and in non U.S. jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our technologies and verekitug or any other potential future product candidates.

As is the case with other biotech and pharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involves both technological and legal complexity, and are therefore costly, time consuming and inherently uncertain. Recent rulings from the U.S. Supreme Court and the Court of Appeals for the Federal Circuit have narrowed the scope of patent protection available in specified circumstances and weakened the rights of patent owners in specified situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

In addition, U.S. Supreme Court rulings over the past decade have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the validity and enforceability of issued patents. 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 weaken our ability to obtain new patents or to enforce and/or defend our existing patents and patents that we might obtain in the future.

The USPTO has issued subject matter eligibility guidance instructing USPTO examiners on the ramifications of the Supreme Court rulings in *Mayo Collaborative Services v. Prometheus Laboratories, Inc.* and *Association for Molecular Pathology v. Myriad Genetics, Inc.*, and applied the *Myriad* ruling to natural products and principles including all naturally occurring molecules. In addition, the USPTO continues to provide updates to its guidance continues to be a developing area. The USPTO guidance may make it impossible for us to obtain similar patent claims in future patent applications. Currently, our patent portfolio contains claims of various types and scope, including methods of medical treatment. The presence of varying types of claims in our patent portfolio significantly reduces, but may not eliminate, our exposure to potential validity challenges.

On May 10, 2024, the USPTO issued a proposed rule to change terminal disclaimer practice to add a new requirement for terminal disclaimers filed to obviate (overcome) nonstatutory double patenting. Under the proposed rule, to overcome double patenting a patentee would need to agree that a patent with a terminal disclaimer will be enforceable only if the patent is not tied and has never been tied through one or more terminal disclaimers to a patent in which any claim has been finally held unpatentable or invalid over prior art. If this proposed rule becomes a final rule, it could significantly limit our patent rights and the ability to enforce them.

For our U.S. patent applications, which contain claims entitled to priority after March 16, 2013, there is a greater level of uncertainty due to the Leahy-Smith Act. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These include provisions that affect the way patent applications will be prosecuted and may also affect patent litigation. The USPTO has promulgated regulations and developed procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first to file provisions, did not come into effect until March 16, 2013. 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 growth prospects.

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An important change introduced by the Leahy-Smith Act is that, as of March 16, 2013, the United States transitioned to a “first-to-file” system for deciding which party should be granted a patent when two or more patent applications are filed by different parties claiming the same invention. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Furthermore, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our technology and the prior art allow our technology to be patentable over the prior art. Since patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that we were the first to either: (i) file any patent application related to verekitug or any other potential future product candidates or (ii) invent any of the inventions claimed in our patents or patent applications.

Among some of the other changes introduced by the Leahy-Smith Act are changes that limit where a patentee may file a patent infringement suit and new procedures providing opportunities for third parties to challenge any issued patent in the USPTO. Included in these new procedures is a process known as Inter Partes Review (“IPR”), which has been generally used by many third parties since the enactment of the Leahy-Smith Act to invalidate patents. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in U.S. federal court necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Additionally, the rights of review and appeal for IPR decisions is an area of law that is still developing.

Geopolitical actions in the United States and in foreign countries could increase the uncertainties and costs surrounding the prosecution or maintenance of patent applications and the maintenance, enforcement or defense of issued patents. For example, the United States and foreign government actions related to Russia’s invasion of Ukraine may limit or prevent filing, prosecution and maintenance of patent applications in Russia. Government actions may also prevent maintenance of issued patents in Russia. These actions could result in abandonment or lapse of patents or patent applications, resulting in partial or complete loss of patent rights in Russia. If such an event were to occur, it could have a material adverse effect on our business. In addition, a decree was adopted by the Russian government in March 2022, allowing Russian companies and individuals to exploit inventions owned by patentees that have citizenship or nationality in, are registered in, or have predominately primary place of business or profit-making activities in the United States and other countries that Russia has deemed unfriendly without consent or compensation. Consequently, we would not be able to prevent third parties from practicing its inventions in Russia or from selling or importing products made using its inventions in and into Russia. Accordingly, our competitive position may be impaired, and our business, financial condition, results of operations and growth prospects may be adversely affected.

In addition, a European Unified Patent Court (“UPC”) came into force on June 1, 2023. The UPC will be a common patent court to hear patent infringement and revocation proceedings effective for member states of the European Union. This could enable third parties to seek revocation of a European patent in a single proceeding at the UPC rather than through multiple proceedings in each of the jurisdictions in which the European patent is validated. Although we do not currently own any European patents, if we obtain such patents and applications in the future, any such revocation and loss of patent protection could have a material adverse impact on our business and our ability to commercialize or license our technology and products. Moreover, the controlling laws and regulations of the UPC will develop over time and may adversely affect our ability to enforce or defend the validity of any European patents obtained. We may decide to opt out from the UPC for any future European patent applications that we may file and any patents we may obtain. If certain formalities and requirements are not met, however, such European patents and patent applications could be challenged for non-compliance and

brought under the jurisdiction of the UPC. We cannot be certain that future European patents and patent applications will avoid falling under the jurisdiction of the UPC, if we decide to opt out of the UPC.

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

In addition to seeking patents for our technologies and vereditug or any other potential future product candidates, we also rely on trade secret protection, as well as confidentiality agreements, non-disclosure agreements and assignment agreements with our employees, consultants and third parties, to protect our know-how and other confidential and proprietary information, especially where we do not believe patent protection is appropriate or obtainable.

It is our policy to require our employees, corporate collaborators, outside scientific collaborators, CROs, contract manufacturers, consultants, advisors, and other third parties to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements generally provide that all confidential information concerning our business or financial affairs developed by or made known to an individual or entity during the course of that party's relationship with us are to be kept confidential and not disclosed to third parties, except in certain specified circumstances. In the case of employees, the agreements also provide that all inventions conceived by the individual, and that are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property. In the case of consultants and other third-party service providers, the agreements provide us with certain rights to all inventions arising from the services provided to us by those individuals or entities. However, we cannot guarantee that we have entered into such agreements with each party that may have or have had access to our trade secrets or proprietary technologies and processes. Additionally, the assignment of intellectual property rights may not be self-executing, or assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. We may not be able to obtain adequate remedies for any breaches of such agreements. Ultimately, enforcing a claim that a party illegally disclosed or misappropriated a trade secret can be difficult, expensive, and time consuming, and the outcome is unpredictable.

In addition to contractual measures, we protect the confidential nature of our proprietary information through other appropriate precautions, such as physical and technological security measures. However, trade secrets and know-how can be difficult to protect despite these precautions. These measures may not, for example, in the case of misappropriation of a trade secret by an employee or third party with authorized access, provide adequate protection for our proprietary information. Our security measures may not prevent an employee or consultant from misappropriating our trade secrets and providing them to a competitor, and any recourse we might take against this type of misconduct may not provide an adequate remedy to protect our interests fully. In addition, our trade secrets may be independently developed by others in a manner that could prevent us from receiving legal recourse. If any of our confidential or proprietary information, such as our trade secrets, were to be disclosed or misappropriated, or if any of that information was independently developed by a competitor, our competitive position could be harmed.

If we choose to go to court to stop a third party from using any of our trade secrets, we may incur substantial costs. In addition, courts inside and outside the United States are sometimes less willing or unwilling to protect trade secrets. Even if we are successful, these types of lawsuits may consume, in addition to substantial costs, significant amounts of our time and other resources. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Third parties may assert that our employees, consultants, or advisors have wrongfully used or disclosed confidential information or misappropriated trade secrets.

As is common in the biotechnology and pharmaceutical industries, we employ individuals that are currently or were previously employed at universities, research institutions or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we employ measures to ensure that our employees, consultants, and advisors do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or these individuals have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. We may then be directly or indirectly involved in litigation proceedings to defend against these claims. If we fail in defending against any such claims, in addition to potentially paying monetary damages, we may lose valuable intellectual property rights and/or personnel. Even if we are successful in defending against such claims, litigation could result in substantial costs and 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, that perception could have a substantial adverse effect on the price of our common stock. Ultimately, any such litigation could substantially increase our operating losses and reduce our resources available for development activities, and we may not have sufficient financial or other resources to adequately engage in such litigation. For example, some of our competitors may be able to sustain the costs of such litigation more effectively than we can because of their substantially greater financial resources. In any case, uncertainties resulting from the initiation and continuation of intellectual property litigation or other intellectual property related proceedings could adversely affect our ability to compete in the marketplace.

Any trademarks we may obtain may be infringed or successfully challenged, resulting in harm to our business.

We expect to rely on trademarks as one means to distinguish verkitug or any other potential future product candidates that are approved for marketing from the products of our competitors. However, our trademarks or trade names may be challenged, infringed, circumvented, or 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 benefit from to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties 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 allegations of trade name or trademark infringement claims brought by owners of other registered trademarks or trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, 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 trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversions of resources and could adversely affect our business, financial condition, results of operations and growth prospects.

In addition, any proprietary name we propose to use with verkitug or any other potential future product candidates in the United States must be approved by the FDA, regardless of whether we have registered it, or applied to register it, as a trademark. The FDA typically conducts a review of proposed product names, including an evaluation of the potential for confusion with other product names. If the FDA objects to any of our proposed proprietary product names, we may be required to expend significant additional resources in an effort to identify a suitable proprietary product name that would qualify under applicable trademark laws, not infringe the existing rights of third parties, and be acceptable to the FDA.

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 it to maintain our competitive advantage. For example:

- verekitug or any other potential future product candidates, if approved, may eventually become commercially available in generic or biosimilar product forms;
- others may be able to make similar antibodies to verekitug or any other potential future product candidates that are not covered by the claims of the patents that we license or may own in the future;
- we, or current or future licensors or collaborators, might not have been the first to make the inventions covered by the issued patent or pending patent application that we license or may own in the future, potentially resulting in the invalidation of such patents or refusal of such applications;
- we, or current or future licensors or collaborators, might not have been the first to file patent applications covering certain of our or their inventions;
- we, or current or future licensors or collaborators, may fail to meet our obligations to the U.S. government regarding any in licensed patents and patent applications funded by U.S. government grants, leading to the loss or unenforceability of patent rights;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing on our owned or licensed intellectual property rights;
- it is possible that our pending patent applications or those that we may own or license in the future will not lead to issued patents;
- it is possible that there are prior public disclosures that could invalidate our patents;
- it is possible that there are unpublished patent applications that may later issue with claims covering verekitug or any other potential future product candidates or technology similar to ours;
- it is possible that our patents or patent applications omit individual(s) that should be listed as inventor(s) or include individual(s) that should not be listed as inventor(s), which may cause these patents or patents issuing from these patent applications to be held invalid or unenforceable or result in a change in ownership;
- issued patents to which we hold rights may be held invalid, unenforceable, or narrowed in scope, including as a result of legal challenges by our competitors;
- the claims of our issued patents or patent applications, if and when issued, may not cover verekitug or any other potential future product candidates or narrowly cover them in such a way that competitors may be able to design around to avoid infringement allegations;
- the laws of foreign countries may not protect our proprietary rights or the proprietary rights of current or future licensors or collaborators to the same extent as the laws of the United States;
- the inventors of our patents or patent applications may become involved with competitors, develop products or processes that design around our patents, or become hostile to it or the patents or patent applications on which they are named as inventors;
- 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;

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- we have engaged in scientific collaborations in the past and we intend to continue to do so in the future, and our collaborators may develop adjacent or competing products that are outside the scope of our patents;
- we may not develop additional proprietary technologies that are patentable;
- verekitug or any other potential future product candidates we develop may be covered by third-party patents or other exclusive rights;
- the patents of others may prohibit or otherwise harm our business; or
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently commercialize the technology and/or 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 growth prospects.

Risks related to this offering and ownership of our common stock

There has been no prior public market for our common stock, and an active trading market may not develop or be sustained.

There has been no public market for our common stock prior to this offering. The initial public offering price for our common stock was determined through negotiations among the underwriters and us and may vary from the market price of our common stock following this offering. An active or liquid market in our common stock may not develop upon closing of this offering or, if it does develop, it may not be sustainable. The lack of an active market may impair the value of your shares, your ability to sell your shares at the time you wish to sell them and the prices that you may obtain for your shares. An inactive market may also impair our ability to raise capital by selling our common stock and our ability to acquire other companies, products, or technologies by using our common stock as consideration.

The price of our stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock following this offering is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control, including limited trading volume. In addition to the factors discussed in this section and elsewhere in this prospectus, these factors include:

- the commencement, enrollment, completion or results of our current or future preclinical and clinical trials for verekitug or any other potential future product candidates;
- any delay in identifying and advancing a clinical candidate for our other programs;
- any delay in our regulatory filings for verekitug or any other potential future product candidates and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings, including without limitation the FDA's issuance of a "refusal to file" letter or a request for additional information;
- adverse results or delays, suspensions or terminations in future preclinical studies or clinical trials;
- our decision to initiate a clinical trial, not to initiate a clinical trial or to terminate an existing clinical trial;
- adverse regulatory decisions, including failure to receive regulatory approval of verekitug or any other potential future product candidates or the failure of a regulatory authority to accept data from preclinical studies or clinical trials conducted in other countries;

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- changes in laws or regulations applicable to verekitug or any other potential future product candidates, including but not limited to clinical trial requirements for approvals;
- adverse developments concerning our manufacturers;
- our inability to obtain adequate product supply for any approved product or inability to do so at acceptable prices;
- our inability to establish collaborations, if needed;
- our failure to commercialize verekitug or any other potential future product candidates, if approved;
- additions or departures of key scientific or management personnel;
- unanticipated serious safety concerns related to verekitug or any other potential future product candidates;
- introduction of new products or services offered by us or our competitors;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- our ability to effectively manage our growth;
- actual or anticipated variations in quarterly operating results;
- our cash position;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- publication of research reports about us or our industry, or verekitug or any other potential future product candidates in particular, or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- changes in the market valuations of similar companies;
- changes in the structure of the healthcare payment systems;
- overall performance of the equity markets;
- sales of our common stock by us or our stockholders in the future;
- trading volume of our common stock;
- changes in accounting practices, such as the adoption of a new accounting standard;
- ineffectiveness of our internal controls;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- significant lawsuits, including patent or stockholder litigation;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

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In addition, the stock market in general, and the market for biopharmaceutical companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. If the market price of our common stock after this offering does not exceed the initial public offering price, you may not realize any return on your investment in us and may lose some or all of your investment. In the past, securities class action litigation has often been instituted against companies following periods of volatility in the market price of a company's securities. This type of litigation, if instituted, could result in substantial costs and a diversion of management's attention and resources.

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations.

Our quarterly and annual operating results may fluctuate significantly, due to a variety of factors, many of which are outside of our control and may be difficult to predict, including:

- the timing and cost of, and level of investment in, research, development and, if approved, commercialization activities relating to verekitug or any other potential future product candidates, which may change from time to time;
- the timing and status of enrollment for clinical trials;
- the cost of manufacturing verekitug or any other potential future product candidates, as well as building out our supply chain, which may vary depending on the quantity of production and the terms of our agreements with manufacturers;
- expenditures that we may incur to acquire, develop or commercialize additional product candidates and technologies;
- timing and amount of any milestone, royalty or other payments due under any collaboration or license agreement;
- future accounting pronouncements or changes in our accounting policies;
- the timing and success or failure of preclinical studies and clinical trials for verekitug or any other potential future product candidates or competing product candidates, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners;
- the timing of receipt of approvals for verekitug or any other potential future product candidates from regulatory authorities in the United States and internationally;
- exchange rate fluctuations;
- coverage and reimbursement policies with respect to verekitug or any other potential future product candidates, if approved, and potential future drugs that compete with our products; and
- the level of demand for verekitug or any other potential future product candidates, if approved, which may vary significantly over time.

The cumulative effects of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

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This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our future revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if any forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue or earnings guidance we may provide.

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 that securities or industry analysts publish about us or our business. Securities and industry analysts do not currently, and may never, publish research on our company. If no securities or industry analysts commence coverage of our company, the trading price for our stock would likely be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who covers us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price may decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

Our executive officers, directors, principal stockholders and their respective affiliates own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

Based on the beneficial ownership of our common stock as of _____, 2024, prior to this offering, our executive officers, directors, holders of 5% or more of our capital stock and their respective affiliates beneficially owned approximately _____% of our voting stock and, upon the completion of this offering, that same group will hold approximately _____% of our outstanding voting stock (assuming no exercise of the underwriters' option to purchase additional shares, no exercise of outstanding options and no purchases of shares in this offering by any of this group), in each case assuming the conversion of all outstanding shares of our preferred stock into shares of our common stock. As a result, these stockholders, if acting together, will continue to have significant influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, amendment of our organizational documents, any merger, consolidation or sale of all or substantially all of our assets and any other significant corporate transaction. In addition, certain of our principal stockholders, including Maruho Deutschland GmbH, entities affiliated with OrbiMed, AI Upstream LLC, Decheng Capital Global Life Sciences Fund IV, L.P., Upstream Aggregator, LP, and entities affiliated with Venrock, have designated certain members of our board of directors. The interests of these stockholders may not be the same as or may even conflict with your interests. For example, these stockholders could delay or prevent a change of control of our company, even if such a change of control would benefit our other stockholders, which could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company or our assets and might affect the prevailing market price of our common stock. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

Future sales of our common stock in the public market could cause our common stock price to fall.

Our common stock price could decline as a result of sales of a large number of shares of common stock after this offering or the perception that these sales could occur. These sales, or the possibility that these sales may occur, might also make it more difficult for us to sell equity securities in the future at a time and price that we deem appropriate.

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Upon the completion of this offering, _____ shares of common stock will be outstanding (or _____ shares if the underwriters exercise their option to purchase additional shares from us in full), based on the number of shares outstanding as of June 30, 2024.

All shares of common stock expected to be sold in this offering will be freely tradable without restriction or further registration under the Securities Act of 1933, as amended (“Securities Act”) unless held by our “affiliates” as defined in Rule 144 under the Securities Act. The resale of the remaining _____ shares, or _____ % of our outstanding shares of common stock following this offering, is currently prohibited or otherwise restricted, subject to certain limited exceptions, as a result of securities law provisions, market standoff agreements entered into by certain of our stockholders with us or lock-up agreements entered into by our stockholders with the underwriters in connection with this offering. However, subject to applicable securities law restrictions, these shares will be able to be sold in the public market beginning on the 181st day after the date of this prospectus. Shares issued upon the exercise of stock options outstanding under our equity incentive plans or pursuant to future awards granted under those plans will become available for sale in the public market to the extent permitted by the provisions of applicable vesting schedules, market stand-off agreements and/or lock-up agreements, as well as Rules 144 and 701 under the Securities Act. For more information, see the section titled “Shares eligible for future sale.”

Upon the completion of this offering, the holders of approximately _____ shares, or _____ % of our outstanding shares following this offering, of our common stock will have rights, subject to some conditions, to require us to file registration statements covering the sale of their shares or to include their shares in registration statements that we may file for ourselves or our other stockholders. We also intend to register the offer and sale of all shares of common stock that we may issue under our equity compensation plans. Once we register the offer and sale of shares for the holders of registration rights and shares that may be issued under our equity incentive plans, these shares will be able to be sold in the public market upon issuance, subject to the lock-up agreements described in the section titled “Underwriting.”

In addition, in the future, we may issue additional shares of common stock, or other equity or debt securities convertible into common stock, in connection with a financing, acquisition, employee arrangement, or otherwise. Any such issuance could result in substantial dilution to our existing stockholders and could cause the price of our common stock to decline.

We will have broad discretion in how we use the proceeds of this offering and may not use these proceeds effectively, which could affect our results of operations and cause our stock price to decline.

We will have considerable discretion in the application of the net proceeds of this offering, including for any of the purposes described in the section of this prospectus titled “Use of proceeds,” and you will not have the opportunity as part of your investment decision to assess whether the net proceeds are being used appropriately. As a result, investors will be relying upon management’s judgment with only limited information about our specific intentions for the use of the net proceeds of this offering. We may use the net proceeds for purposes that do not yield a significant return or any return at all for our stockholders. In addition, pending their use, we may invest the net proceeds from this offering in a manner that does not produce income or that loses value.

If you purchase shares of our common stock in our initial public offering, you will experience substantial and immediate dilution.

The assumed initial public offering price of \$ _____ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, is substantially higher than the pro forma as adjusted net tangible book

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value per share of our outstanding common stock immediately following the completion of this offering. If you purchase shares of common stock in this offering, you will experience substantial and immediate dilution in the pro forma as adjusted net tangible book value per share of \$ _____ per share as of June 30, 2024. That is because the price that you pay will be substantially greater than the pro forma as adjusted net tangible book value per share of the 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 if the underwriters exercise their option to purchase additional shares in this offering, when those holding stock options exercise their right to purchase common stock under our equity incentive plans, upon the vesting of outstanding restricted stock awards or when we otherwise issue additional shares of common stock. For additional details see the section titled "Dilution."

Participation in this offering by our existing stockholders and/or their affiliated entities may reduce the public float for our common stock.

To the extent our existing stockholders who are our affiliates or their affiliated entities participate in this offering, such purchases would reduce the non-affiliate public float of our common stock after this offering, which is the number of shares of common stock that are not held by our officers, directors and affiliated stockholders. A reduction in the public float could reduce the number of shares of common stock that can be traded at any given time, which could adversely impact the liquidity of our common stock and depress the price at which you may be able to sell shares of common stock purchased in this offering.

Our issuance of additional capital stock in connection with financings, acquisitions, investments, our stock incentive plans or otherwise will dilute all other stockholders.

We expect to issue additional capital stock in the future that will result in dilution to all other stockholders. We expect to grant equity awards to employees, directors and consultants under our stock incentive plans. We may also raise capital through equity financings in the future. As part of our business strategy, we may acquire or make investments in complementary companies, products or technologies and issue equity securities to pay for any such acquisition or investment. Any such issuances of additional capital stock may cause stockholders to experience significant dilution of their ownership interests and the per share value of our common stock to decline.

We do not currently intend to pay dividends on our common stock and, consequently, our stockholders' ability to achieve a return on their investment will depend on appreciation of the value of our common stock.

We have never declared or paid cash dividends on our common stock. 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. We do not intend to declare or pay any cash dividends on our capital stock in the foreseeable future. As a result, any investment return on our common stock will depend upon increases in the value for our common stock, which is not certain.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current directors and members of management.

Our third amended and restated certificate of incorporation, which will become effective immediately prior to the completion of this offering, and amended and restated bylaws, which will become effective upon the effectiveness of the registration statement of which this prospectus forms a part, will contain provisions that may discourage, delay or prevent a merger, acquisition or other change in control of our company that

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stockholders may consider favorable, including transactions in which our stockholders might otherwise receive a premium for their shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions:

- establish a classified board of directors such that only one of three classes of directors is elected each year;
- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- limit the manner in which stockholders can remove directors from our board of directors;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call stockholder meetings;
- authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a “poison pill” that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and
- require the approval of not less than two-thirds of the votes that all our stockholders would be entitled to cast to amend or repeal specified provisions of our third amended and restated certificate of incorporation or amended and restated bylaws.

Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law (the “DGCL”), which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Our bylaws that will become effective upon the effectiveness of this registration statement designate certain courts as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by 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 bylaws that will become effective upon the completion of this offering provide that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for any state law claims for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of, or a claim based on, fiduciary duty owed by any of our current or former directors, officers, and employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws (including the interpretation, validity or enforceability thereof), or (iv) any action asserting a claim that is governed by the internal affairs doctrine (the “Delaware Forum Provision”). The Delaware Forum Provision will not apply to any causes of action arising under the Securities Act or the Exchange Act. Our bylaws that will become effective upon the completion of this offering further provide that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States shall be the sole and exclusive

forum for resolving any complaint asserting a cause or causes of action arising under the Securities Act (the “Federal Forum Provision”). In addition, our amended and restated bylaws provide that any person or entity purchasing or otherwise acquiring any interest in shares of our common stock is deemed to have notice of and consented to the foregoing provisions; provided, however, that stockholders cannot and will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

The Delaware Forum Provision and the Federal Forum Provision in our bylaws may impose additional litigation costs on stockholders in pursuing any such claims. Additionally, the forum selection clauses in our bylaws may limit our stockholders’ ability to bring a claim in a judicial forum that they 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 even though an action, if successful, might benefit our stockholders. In addition, while the Delaware Supreme Court and others state courts have upheld the validity of federal forum selection provisions purporting to require claims under the Securities Act be brought in federal court, there is uncertainty as to whether other courts will enforce our Federal Forum Provision. If the Federal Forum Provision is found to be unenforceable, we may incur additional costs associated with resolving such matters. The Federal Forum Provision may also impose additional litigation costs on stockholders who assert that the provision is not enforceable or invalid. The Court of Chancery of the State of Delaware and the federal district courts of the United States may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments may be more or less favorable to us than our stockholders.

We may not be able to satisfy listing requirements of Nasdaq or obtain or maintain a listing of our common stock on Nasdaq.

If our common stock is listed on Nasdaq, we must meet certain financial and liquidity criteria to maintain such listing. If we violate Nasdaq’s listing requirements, our common stock may be delisted. If we fail to meet any of Nasdaq’s listing standards, our common stock may be delisted. In addition, our board of directors may determine that the cost of maintaining our listing on a national securities exchange outweighs the benefits of such listing. A delisting of our common stock from Nasdaq may materially impair our stockholders’ ability to buy and sell our common stock and could have an adverse effect on the market price of, and the efficiency of the trading market for, our common stock. The delisting of our common stock could significantly impair our ability to raise capital and the value of your investment.

Other general risks

Unfavorable global economic and geopolitical conditions could adversely affect our business, financial condition, stock price, and results of operations.

The global credit and financial markets have experienced extreme volatility and disruptions (including as a result of actual or perceived changes in interest rates, inflation and macroeconomic uncertainties), which has included severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, high inflation, uncertainty about economic stability, global supply chain disruptions, and increases in unemployment rates. The financial markets and the global economy may also be adversely affected by the current or anticipated impact of military conflict, including the ongoing conflicts between Russia and Ukraine, and Israel and Hamas, terrorism, or other geopolitical events. Sanctions imposed by the United States and other countries in response to such conflicts, including the one in Ukraine, may also continue to adversely impact the financial markets and the global economy, and any economic countermeasures by the affected countries or others could exacerbate market and economic instability. There can be no assurance that further deterioration in credit and financial markets and confidence in economic conditions will not occur. A severe or

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prolonged economic downturn could result in a variety of risks to our business, including a decrease in the demand for verekitug or any other potential future product candidates and in our ability to raise additional capital when needed on acceptable terms, if at all.

There are also current geopolitical tensions with China that may affect our operations. For example, there have been Congressional legislative proposals, such as the bill titled the BIOSECURE Act, which would, among other things, prohibit U.S. federal funding in connection with biotechnology equipment or services produced or provided by certain named Chinese “biotechnology companies of concern” (which includes WuXi) and loans and grants to, and federal contracts with any entity that uses biotechnology equipment or services from one of these entities. The legislation also gives the federal government the authority to name additional “biotechnology companies of concern” that are engaged in research activities with the Chinese government and that pose a risk of U.S. national security. The most recent version of the BIOSECURE Act which would delay the application of the BIOSECURE Act’s provisions (1) until January 1, 2032, with respect to biotechnology equipment and services provided or produced by WuXi and other named biotechnology companies of concern under a contract or agreement entered before the effective date of the legislation and (2) for a period of five years after the identification of new biotechnology companies of concern, with respect to biotechnology equipment and services provided or produced by an entity that the government identifies in the future as a biotechnology company of concern. Any additional executive action, legislative action or potential sanctions with China could materially impact one of our current manufacturing partners, WuXi, and our agreement with them. We continue to assess the legislation as it develops to determine the effect, if any, on our contractual relationships. Furthermore, any disruptions to our supply chain as a result of unfavorable global economic conditions, including due to geopolitical conflicts or public health crises, could negatively impact the timely execution of our ongoing and future clinical trials.

In addition, current inflationary trends in the global economy may impact salaries and wages, costs of goods and transportation expenses, among other things, and recent and potential future disruptions in access to bank deposits or lending commitments due to bank failures may create market and economic instability. We cannot anticipate all of the ways in which the foregoing, and the current economic climate and financial market conditions generally, could adversely impact our business.

We maintain the majority of our cash and cash equivalents in accounts with major U.S. and multi-national financial institutions, and our deposits at certain of these institutions may exceed insured limits. Market conditions and changes in financial regulations and policies can impact the viability of these institutions. In the event of failure of any of the financial institutions where we maintain our cash and cash equivalents, there can be no assurance that we would be able to access uninsured funds in a timely manner or at all. Any inability to access or delay in accessing these funds could adversely affect our business and financial position. In addition, changes in regulations governing financial institutions are beyond our control and difficult to predict; consequently, the impact of such changes on our business and results of operations is difficult to predict and may have an adverse effect on us.

We, or the third parties upon whom we depend, may be adversely affected by natural disasters, public health crises or other business interruptions and our business continuity and disaster recovery plans may not adequately protect us from a serious disaster.

Natural disasters or public health crises could severely disrupt our operations, and have a material adverse impact on our business, financial condition, results of operations and growth prospects. If a natural disaster, power outage, public health crisis or other event occurred that prevented us from conducting our clinical trials, releasing clinical trial results or delaying our ability to obtain regulatory approval for verekitug or any other potential future product candidates, it may be difficult or, in certain cases, impossible for us to continue our business for a substantial period of time.

We are eligible to be treated as an “emerging growth company” and a “smaller reporting company” and our election of reduced reporting requirements applicable to emerging growth companies and smaller reporting companies may make our common stock less attractive to investors.

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act (“JOBS Act”). For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including:

- reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports, proxy statements and registration statements;
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved;
- being permitted to provide only two years of audited financial statements in addition to any required unaudited interim financial statements and a correspondingly reduced “Management’s discussion and analysis of financial condition and results of operations” disclosure in this prospectus;
- an exemption from compliance with the auditor attestation requirements of Section 404 in the assessment of our internal control over financial reporting; and
- an exemption from compliance with the requirements of the Public Company Accounting Oversight Board regarding the communication of critical audit matters in the auditor’s report on the financial statements.

We may take advantage of these exemptions for up to five years or such earlier time that we are no longer an emerging growth company. We would cease to be an emerging growth company on the date that is the earliest of (i) the last day of the fiscal year in which we have total annual gross revenue of \$1.235 billion; (ii) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering; (iii) the date on which we have issued more than \$1.0 billion in non-convertible debt during any three-year period before that time; or (iv) the date on which we are deemed to be a “large accelerated filer”, which would occur if the aggregate market value of our equity securities held by non-affiliates exceeds \$700.0 million as of the last business day of our most recently completed second fiscal quarter. For so long as we remain an emerging growth company, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not emerging growth companies.

In addition, the JOBS Act provides that an emerging growth company can also take advantage of an extended transition period for complying with new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards, and therefore we will not be subject to the same requirements to adopt new or revised accounting standards as other public companies that are not emerging growth companies.

Even after we no longer qualify as an emerging growth company, we could still qualify as a “smaller reporting company,” which would allow us to take advantage of many of the same exemptions from disclosure requirements and reduced disclosure obligations regarding executive compensation in this prospectus and our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may 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 share price may be more volatile.

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives and corporate governance practices.

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As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. We will be subject to the reporting requirements of the Exchange Act, which will require, among other things, that we file with the SEC annual, quarterly and current reports with respect to our business and financial condition. In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and The Nasdaq Global Select Market to implement provisions of the Sarbanes-Oxley Act, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial reporting controls and changes in corporate governance practices. Further, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the “Dodd-Frank Act”) was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as “say on pay” and proxy access. Recent legislation permits emerging growth companies to implement many of these requirements over a longer period and up to five years from the pricing of this offering. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

We expect the rules and regulations applicable to public companies to substantially increase our legal and financial compliance costs and to make some activities more time-consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have an adverse effect on our business. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. For example, we expect these rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

If we fail to establish and maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, stockholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common stock.

Ensuring that we have adequate internal financial and accounting controls and procedures in place so that we can produce accurate financial statements on a timely basis is a costly and time-consuming effort that needs to be reevaluated frequently. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with generally accepted accounting principles. In connection with this offering, we intend to begin the process of documenting, reviewing and improving our internal controls and procedures for compliance with Section 404 of the Sarbanes-Oxley Act, which will require annual management assessment of the effectiveness of our internal control over financial reporting. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. In addition, any testing by us conducted in connection with Section 404, or any subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal controls over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock.

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We will be required to disclose changes made in our internal controls and procedures on a quarterly basis and our management will be required to assess the effectiveness of these controls annually. However, for as long as we are an emerging growth company or a non-accelerated filer, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act. We could be an emerging growth company for up to five years following completion of this initial public offering. An independent assessment of the effectiveness of our internal controls over financial reporting could detect problems that our management's assessment might not. Undetected material weaknesses in our internal controls over financial reporting could lead to restatements of our financial statements and require us to incur the expense of remediation.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Upon the completion of this offering, we will become subject to the periodic reporting requirements of the Exchange Act. We must design our disclosure controls and procedures to reasonably assure that information we must disclose in reports we file or submit under the Exchange Act is accumulated and communicated to management, and recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures, no matter how well-conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. For example, our directors or executive officers could inadvertently fail to disclose a new relationship or arrangement causing us to fail to make a required related party transaction disclosure. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the controls. Accordingly, because of the inherent limitations in our control system, misstatements due to error or fraud may occur and not be detected.

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

As of December 31, 2023, we had federal and state net operating loss ("NOLs") carryforwards of \$25.0 million and \$27.6 million, respectively. The federal NOLs are not subject to expiration and are limited in utilization to 80% of our taxable income and the state NOLs begin to expire in 2041. As of December 31, 2023, we had \$0.8 million of federal and state research and development credits, which will begin to expire in 2043 and 2037, respectively.

Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change," generally defined as a greater than 50 percentage point change (by value) in its equity ownership by "5 percent shareholders" over a three-year period, the corporation's ability to use its pre-change NOLs and other pre-change tax attributes (such as research and development tax credits) to offset its post-change income or taxes may be limited. A corporation that experiences an ownership change will generally be subject to an annual limitation on the use of its pre-ownership change NOLs equal to the value of the corporation immediately before the ownership change, multiplied by the long-term tax-exempt rate (subject to certain adjustments). We may have experienced ownership changes in the past and may experience ownership changes as a result of our acquisitions of assets and as a result of this offering and/or subsequent shifts in our stock ownership (some of which are outside our control). There is also a risk that due to regulatory changes, such as suspensions on the use of NOLs by federal or state taxing authorities or other unforeseen reasons, our existing NOLs could expire or otherwise be unavailable to reduce future income tax liabilities. As a result, our ability to use our pre-change NOLs and tax credits to offset future taxable income, if any, could be subject to

limitations. Similar provisions of state tax law may also apply. As a result, even if we attain profitability, we may be unable to use a material portion of our NOLs and tax credits.

Changes in tax law could adversely affect our business and financial condition.

The rules dealing with U.S. federal, state, and local income taxation are constantly under review by persons involved in the legislative process and by the U.S. Internal Revenue Service and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application), including with respect to net operating losses and research and development tax credits, could adversely affect us or holders of our common stock. In recent years, many such changes have been made and changes are likely to continue to occur in the future. Future changes in tax laws could have a material adverse effect on our business, cash flow, financial condition or results of operations. We urge investors to consult with their legal and tax advisers regarding the implications of potential changes in tax laws on an investment in our common stock.

We may become involved in securities class action litigation that could divert management's attention and harm our business, and insurance coverage may not be sufficient to cover all costs and damages.

In the past, securities class action litigation has often followed certain significant business transactions, such as the sale of a company or announcement of any other strategic transaction, or the announcement of negative events, such as negative results from clinical trials. These events may also result in or be concurrent with investigations by the SEC. We may be exposed to such litigation or investigation even if no wrongdoing occurred. Litigation and investigations are usually expensive and divert management's attention and resources, which could adversely affect our business and cash resources and our ability to consummate a potential strategic transaction or the ultimate value our stockholders receive in any such transaction.

Special note regarding forward-looking statements

This prospectus, including the sections titled “Prospectus summary,” “Risk factors,” “Management’s discussion and analysis of financial condition and results of operations,” and “Business,” contains express or implied forward-looking statements that are based on our management’s belief and assumptions and on information currently available to our management. These statements relate to future events or our future operational or financial performance, and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Forward-looking statements in this prospectus include, but are not limited to, statements about:

- the initiation, timing, progress, and results of our planned and future clinical trials for verekitug, including our ongoing Phase 2 clinical trials in severe asthma and CRSwNP and the planned initiation of an additional development program in COPD;
- our ability to replicate positive results from earlier preclinical studies or clinical trials conducted by us or third parties in current or future clinical trials;
- our ability to demonstrate that verekitug and any potential future product candidates are safe and effective for their proposed indications and our expectations around the beneficial characteristics and therapeutic effects;
- our ability to advance verekitug and any potential future product candidates through applicable regulatory approval processes, including timing of INDs and final FDA approval of verekitug or any future product candidate;
- our estimates of the number of patients that we will enroll and our ability to initiate, recruit and enroll patients in and conduct and successfully complete our clinical trials at the pace we project;
- the implementation of our business model and strategic plans;
- our ability to rely on third-party manufacturers and successfully manufacture verekitug for preclinical use, for clinical trials and on a larger scale for commercial use, if approved;
- our ability to commercialize verekitug, if approved, and obtain favorable pricing and reimbursement;
- the size and growth potential of the markets for verekitug and our ability to serve those markets;
- our ability to realize the benefits of collaborations for the development and commercialization of verekitug or any other potential future product candidates;
- our ability to maintain, expand and protect our intellectual property;
- developments relating to our competitors and our industry;
- existing regulations and regulatory developments in the United States and other jurisdictions;
- general economic, industry, and market conditions, including rising interest rates and inflation;
- our ability to attract, hire, and retain our key personnel and additional qualified personnel;
- our anticipated use of our existing cash, cash equivalents and short-term investments and the net proceeds from this offering;

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- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing; and
- other risks and uncertainties, including those listed under the caption “Risk factors.”

In some cases, forward-looking statements can be identified by terminology such as “may,” “should,” “expects,” “intends,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential,” “continue,” or the negative of these terms or other comparable terminology. These statements are only predictions. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties and other factors, which are, in some cases, beyond our control and which could materially affect results. Factors that may cause actual results to differ materially from those implied or projected by forward-looking statements include, among other things, those listed under the section titled “Risk factors” and elsewhere in this prospectus. If one or more of these risks or uncertainties occur, or if our underlying assumptions prove to be incorrect, actual events or results may vary significantly from those implied or projected by the forward-looking statements. No forward-looking statement is a guarantee of future performance. 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, completely and with the understanding that our actual future results may be materially different from any future results expressed or implied by these forward-looking statements.

While we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should therefore not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus. You should, however, review the factors and risks and other information we describe in the reports we will file from time to time with the Securities and Exchange Commission (“SEC”) after the date of this prospectus.

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, statistical data and other information concerning our industry, market and competitive position, including data regarding the estimated size and patient populations of those and related markets, existing therapeutic options and the incidence of certain medical conditions, from our own internal estimates and research, as well as from independent market research, industry and general publications and surveys, governmental agencies and publicly available information in addition to research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, our internal research and our industry experience, and are based on assumptions made by us based on such data and our knowledge of our industry and market, which we believe to be reasonable. In some cases, we do not expressly refer to the sources from which this data is derived. In that regard, when we refer to one or more sources of this type of data in any paragraph, you should assume that other data of this type appearing in the same paragraph is derived from the same sources, unless otherwise expressly stated or the context otherwise requires.

While we believe the industry, market and competitive position data included in this prospectus is reliable and based on reasonable assumptions, such data involve risks and uncertainties and are subject to change based on various factors, including those discussed in "Risk factors." These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties or by us.

Use of proceeds

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

Each \$1.00 increase or 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 or decrease, as applicable, our net proceeds 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 commissions and estimated offering expenses payable by us. Similarly, each 1.0 million share increase or decrease in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease our net proceeds from this offering by \$ million, assuming no change in the assumed initial public offering price of \$ per share, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The principal purposes of this offering are to create a public market for our common stock and thereby facilitate future access to the public equity markets, increase our visibility in the marketplace and obtain additional capital. We currently intend to use the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, for the following:

- approximately \$ million to advance verekitug through the completion of our multi-national, placebo-controlled, randomized Phase 2 clinical trial in severe asthma, and to initiate subsequent Phase 3 clinical development;
- approximately \$ million to advance verekitug through the completion of our multi-national, placebo-controlled, randomized Phase 2 clinical trial in chronic rhinosinusitis with nasal polyps (“CRSwNP”), and to initiate subsequent Phase 3 clinical development;
- approximately \$ million to expand the development of verekitug for the treatment of chronic obstructive pulmonary disease (“COPD”), including for external clinical trial-related costs for the initiation of a Phase 2 clinical trial;
- approximately \$ million in external costs associated with verekitug drug substance, drug product, process development or other manufacturing activities to support the continued development of verekitug in severe asthma, CRSwNP, COPD and potential future additional indications; and
- the remainder for additional continued research and development efforts relating to verekitug, including expansion into potential additional indications, as well as for working capital and other general corporate purposes.

Based on our current plans, we believe that our existing cash, cash equivalents and short-term investments, together with the net proceeds from this offering, will be sufficient to enable us to fund our operating expenses and capital expenditure requirements at least through . We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. We do not have any committed external source of funds.

Our 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

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actually spend on the uses set forth above and we expect that we will require additional funds in order to fully accomplish the specified uses of the proceeds of this offering. We may also use a portion of the net proceeds to in-license, acquire, or invest in complementary businesses or technologies to continue to build our pipeline, research and development capabilities and our intellectual property position, although we currently have no agreements, commitments, or understandings with respect to any such transaction.

Due to the many inherent uncertainties in the development of verekitug and other potential future product candidates, the amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our research and development, the timing of patient enrollment and evolving regulatory requirements, the timing and success of preclinical studies, our ongoing clinical studies or clinical studies we may commence in the future, the timing of regulatory submissions, any strategic alliances that we may enter into with third parties for verekitug and other potential future product candidates, or strategic opportunities that become available to us, and any unforeseen cash needs.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation instruments, including direct or guaranteed obligations of the U.S. government, money market fund shares, and bank accounts that are insured by the Federal Deposit Insurance Corporation. We cannot predict whether the proceeds invested will yield a favorable return. Our management will retain broad discretion in the application of the net proceeds we receive from our initial public offering, and investors will be relying on the judgment of our management regarding the application of the net proceeds.

Dividend policy

We have never declared or paid cash dividends on our capital stock. We do not intend to pay cash dividends to our stockholders in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the growth and development of our business. Any future determination to declare dividends will be made at the discretion of our board of directors and will depend on then-existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

In addition, our ability to pay cash dividends on our capital stock in the future may be limited by the terms of any future debt or preferred securities we issue or any credit facilities we enter into.

Capitalization

The following table sets forth our cash, cash equivalents and short-term investments and our capitalization as of June 30, 2024:

- on an actual basis;
- on a pro forma basis, to give effect to (i) the automatic conversion of all 31,764,693 outstanding shares of our Series A and Series B redeemable convertible preferred stock in the aggregate into the equivalent number of shares of common stock prior to the completion of this offering and (ii) the filing and effectiveness of our third amended and restated certificate of incorporation, which will occur immediately prior to the completion of this offering; and
- on a pro forma as adjusted basis to give further effect to (i) the pro forma adjustments set forth above and (ii) the issuance and sale of shares of common stock in this offering at an 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, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only, and our capitalization following the completion of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read the information in this table together with our consolidated financial statements and the related notes and "Management's discussion and analysis of financial condition and results of operations" included elsewhere in this prospectus.

(in thousands, except share and per share amounts)	As of June 30, 2024		
	Actual	Pro forma	Pro forma as adjusted ⁽¹⁾
Cash, cash equivalents and short-term investments	\$ _____	\$ _____	\$ _____
Redeemable convertible preferred stock (Series A, B), \$0.001 par value; authorized, shares issued and outstanding, actual; shares authorized, issued or outstanding, pro forma and pro forma as adjusted	\$ _____	\$ _____	\$ _____
Stockholders' (deficit) equity:			
Preferred stock, \$0.001 par value, shares authorized, issued or outstanding, actual; shares authorized and shares issued or outstanding, pro forma and pro forma as adjusted			
Common stock, \$0.001 par value, shares authorized, 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			
Accumulated other comprehensive income			
Accumulated deficit			
Total stockholders' (deficit) equity			
Total capitalization	\$ _____	\$ _____	\$ _____

(1) Each \$1.00 increase or decrease in 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, would increase or decrease, as applicable, the pro forma as adjusted

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amount of each of cash, cash equivalents and short-term investments, total stockholders' (deficit) equity and total capitalization by \$ million, assuming that 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 commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase or decrease, as applicable, the pro forma as adjusted amount of each of cash, cash equivalents and short-term investments, total stockholders' (deficit) equity and total capitalization by \$ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The number of shares of our common stock in the table above is based on shares of common stock outstanding as of June 30, 2024, after giving effect to the automatic conversion of all outstanding shares of our redeemable convertible preferred stock as of June 30, 2024 into the aggregate of 31,764,693 shares of common stock immediately prior to the completion of this offering, and excludes:

- shares of common stock issuable upon the exercise of outstanding stock options as of June 30, 2024 under our 2021 Stock Option and Grant Plan ("2021 Plan"), with a weighted-average exercise price of \$ per share;
- shares of common stock reserved for future issuance as of June 30, 2024 under the 2021 Plan, which will cease to be available for issuance at the time that our 2024 Stock Option and Incentive Plan ("2024 Plan") becomes effective (which includes options to purchase an aggregate of shares of our common stock, at a weighted-average exercise price of \$ per share, that were granted subsequent to June 30, 2024);
- shares of our common stock reserved for future issuance under our 2024 Plan, which will become effective on the date immediately prior to the effectiveness of the registration statement of which this prospectus forms a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan and any shares underlying outstanding stock awards granted under the 2021 Plan that expire or are repurchased, forfeited, cancelled, or withheld; and
- shares of common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan ("ESPP"), which will become effective on the date immediately prior to the effectiveness of the registration statement of which this prospectus forms a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the ESPP.

Dilution

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Our historical net tangible book value as of June 30, 2024 was a deficit of \$ million, or \$ per share of our common stock. Our historical net tangible book value (deficit) is the amount of our total tangible assets less our total liabilities and the carrying values of our redeemable convertible preferred stock, which is not included within stockholders' deficit. Our historical net tangible book value per share represents historical net tangible book value (deficit) divided by the number of shares of our common stock outstanding as of June 30, 2024.

Our pro forma net tangible book value as of June 30, 2024 was \$ million, or \$ per share of our common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, after giving effect to the automatic conversion of all 31,764,693 outstanding shares of our Series A and Series B redeemable convertible preferred stock in the aggregate into the equivalent number of shares of common stock prior to the completion of this offering. Pro forma net tangible book value per share represents pro forma net tangible book value divided by the total number of shares outstanding as of June 30, 2024, after giving effect to the pro forma adjustments described above.

After giving further effect to our issuance and sale of shares of our common stock in this offering at an assumed initial public offering price of \$ per share, the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of June 30, 2024 would have been \$ million, or \$ per share. This amount represents an immediate increase in pro forma as adjusted net tangible book value per share of \$ to our existing stockholders and immediate dilution of \$ in pro forma as adjusted net tangible book value per share to new investors purchasing common stock in this offering.

Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the initial public offering price per share paid by new investors. The following table illustrates this dilution (without giving effect to any exercise by the underwriters of their option to purchase additional shares):

Assumed initial public offering price per share		\$
Historical net tangible book value (deficit) per share as of June 30, 2024	\$	
Pro forma increase in net tangible book value per share as of June 30, 2024 attributable to the pro forma adjustments described above		
Pro forma net tangible book value per share as of June 30, 2024		
Increase in pro forma net tangible book value per share attributable to new investors participating in this offering		
Pro forma as adjusted net tangible book value per share after this offering		
Dilution per share to new investors purchasing common stock in this offering		\$

The dilution information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing.

Each \$1.00 increase (decrease) in the assumed initial public offering price of \$ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value per share after this offering by \$ and dilution per share to new

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investors purchasing common stock in this offering by \$, assuming that 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 commissions and estimated offering expenses payable by us. Similarly, each increase of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase our pro forma as adjusted net tangible book value per share after this offering by \$ and decrease dilution per share to new investors purchasing common stock in this offering by \$, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. Each decrease of 1.0 million shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease our pro forma as adjusted net tangible book value per share after this offering by \$ and increase dilution per share to new investors purchasing common stock in this offering by \$, assuming no change in the assumed initial public offering price and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their option to purchase up to additional shares of our common stock in full, our pro forma as adjusted net tangible book value per share after this offering would be \$ per share, representing an immediate increase in pro forma as adjusted net tangible book value per share of \$ per share to existing stockholders and immediate dilution in pro forma as adjusted net tangible book value per share of \$ per share to new investors purchasing common stock in this offering, based on the assumed initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The following table summarizes on the pro forma as adjusted basis described above, as of June 30, 2024, the total number of shares of common stock purchased from us on an as converted basis to common stock, the total consideration paid or to be paid, and the average price per share paid or to be paid by existing stockholders and by new investors in this offering at an assumed initial public offering price of \$ per share, which is the midpoint of the estimated price range set forth on the cover of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. New investors purchasing shares of our common stock in this offering will pay an average price per share substantially higher than our existing stockholders paid.

(in thousands, except share, per share and percent data)	Shares purchased		Total consideration		Weighted-average price per share
	Number	Percent	Number	Percent	
Existing stockholders		%	\$	%	\$
New investors					
Total		100%	\$	100%	\$

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters' option to purchase additional shares of our common stock is exercised in full, the number of shares of our common stock held by existing stockholders would be reduced to % of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors purchasing common stock in this offering would be increased to % of the total number of shares of our common stock outstanding after this offering.

The foregoing discussion and calculations above (other than the historical net tangible book value calculations) are based on shares of common stock outstanding as of June 30, 2024, after giving effect to the automatic conversion of all outstanding shares of our redeemable convertible preferred stock into the

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aggregate of 31,764,693 shares of common stock immediately prior to the completion of this offering, and excludes:

- shares of common stock issuable upon the exercise of outstanding stock options as of June 30, 2024 under our 2021 Plan, with a weighted-average exercise price of \$ per share;
- shares of common stock reserved for future issuance as of June 30, 2024 under the 2021 Plan, which will cease to be available for issuance at the time that our 2024 Plan becomes effective (which includes options to purchase an aggregate of shares of our common stock, at a weighted-average exercise price of \$ per share, that were granted subsequent to June 30, 2024);
- shares of our common stock reserved for future issuance under our 2024 Plan, which will become effective on the date immediately prior to the effectiveness of the registration statement of which this prospectus forms a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan and any shares underlying outstanding stock awards granted under the 2021 Plan that expire or are repurchased, forfeited, cancelled, or withheld; and
- shares of common stock reserved for future issuance under our ESPP, which will become effective on the date immediately prior to the effectiveness of the registration statement of which this prospectus forms a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the ESPP.

To the extent that new stock options are issued or any outstanding options are exercised, or we issue additional shares of common stock in the future, there will be further dilution to new investors. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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, considered and evaluated together with our audited consolidated financial statements as of and for the years ended December 31, 2023 and 2022 and the related notes included elsewhere in this prospectus. This discussion and analysis as well as other parts of this prospectus contain forward-looking statements that involve risks and uncertainties, including but not limited to, information with respect to our plans and strategy for our business and related financing. As a result of many factors, including those factors set forth in the section titled "Risk factors," our actual results could differ materially from the results described in or implied by the forward-looking statements. You should carefully read, consider and evaluate the section titled "Risk factors" to gain an understanding of the factors that could cause actual results to differ materially from our forward-looking statements. Please also see "Special note regarding forward-looking statements." Our historical results are not necessarily indicative of the results that may be expected for any period in the future. For convenience of presentation, some of the numbers have been rounded in the text below.

Overview

We are a clinical-stage biotechnology company developing treatments for inflammatory diseases, with an initial focus on severe respiratory disorders. We are developing verekitug, a first-in-class antagonist of the receptor for Thymic Stromal Lymphopoietin ("TSLP"), a cytokine which is a clinically validated driver of inflammatory response positioned upstream of multiple signaling cascades that affect a variety of immune mediated diseases. Preclinical and clinical data to date demonstrate verekitug's highly potent inhibition of the TSLP receptor, which we believe will translate to a differentiated product profile, including improved clinical outcomes, substantially extended dosing intervals and the potential to treat a broad spectrum of patients. We have advanced this highly potent monoclonal antibody into separate Phase 2 trials for the treatment of severe asthma and chronic rhinosinusitis with nasal polyps ("CRSwNP") and plan to initiate development in chronic obstructive pulmonary disease ("COPD"). Our experienced team is committed to maximizing verekitug's unique attributes to address the substantial unmet needs for patients underserved by today's standard of care.

Through the date of this filing, we have historically financed our operations principally through the issuance and sale of our Series A redeemable convertible preferred stock ("Series A Preferred Stock") and Series B redeemable convertible preferred stock ("Series B Preferred Stock"), which are collectively referred to as the "Preferred Stock." As of December 31, 2023, we have received total gross proceeds of \$250.0 million from the issuance and sale of our Preferred Stock and we have also received cash of \$3.5 million in connection with research and development services we provided to Maruho Co., Ltd ("Maruho"), a related party. In April 2024, we received \$150.0 million in gross cash proceeds from the closing of the Series B Preferred Stock Purchase Agreement (the "Series B Agreement").

We have incurred significant net operating losses and negative cash flows since our inception. Since our inception, we have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, establishing licensing, building our proprietary platform technologies, developing verekitug, establishing our intellectual property portfolio, conducting research, preclinical studies, and clinical trials, establishing arrangements with third parties for the manufacture of verekitug and related raw materials, and providing general and administrative support for these operations. Our ability to generate product revenue sufficient to achieve profitability, if ever, will depend on the successful development, regulatory approval and eventual commercialization of verekitug and any other potential future product candidates, which we expect will take a number of years. For the years ended December 31, 2023 and 2022, we reported net losses of \$20.5 million and \$23.9 million, respectively. Our net losses have resulted principally from costs incurred in our

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research and development activities. As of December 31, 2023, we had an accumulated deficit of \$128.0 million, and we had cash, cash equivalents and short-term investments of \$109.8 million, which does not include the gross cash proceeds of \$150.0 million we received from the additional sale of Series B Preferred Stock in April 2024 (the "Series B Option"). We believe that the anticipated net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, will enable us to fund our operating expenses and capital expenditure requirements through . We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect. See the subsection titled "—Liquidity and Capital Resources" below. Even if this offering is successful, we will require additional funding in order to finance operations and complete our ongoing and planned clinical trials. Access to such funding on acceptable terms cannot be assured.

We expect to continue to incur significant net operating losses for the foreseeable future. We anticipate that our expenses will increase substantially if, and as we:

- continue to conduct our ongoing clinical trials of verekitug, including advancement into Phase 2 global clinical trials, as well as initiate and complete additional clinical trials of verekitug in new indications or patient populations;
- conduct larger-scale clinical trials for verekitug or any potential future product candidates;
- manufacture, or have manufactured, clinical and commercial supplies of verekitug;
- seek regulatory approvals, prepare for and, if approved, proceed to commercialization for verekitug in current or new indications or any potential future product candidates;
- attract, hire and retain additional clinical, scientific, and management personnel;
- implement operational, financial, and management information systems;
- add quality control, quality assurance, legal, compliance, and other groups to support our operations;
- obtain, maintain, protect, expand and enforce our intellectual property portfolio, including intellectual property obtained through license agreements;
- defend against any claims by third parties that we have infringed, misappropriated or otherwise violated any intellectual property of any such third party;
- make royalty, milestone or other payments under current, and any future, license or collaboration agreements;
- establish a sales, marketing and distribution infrastructure, either ourselves or in partnership with others, to commercialize verekitug, if approved;
- potentially experience any delays, challenges, or other issues associated with the clinical development of verekitug and any potential future product candidates, including with respect to our regulatory strategies; and
- incur additional legal, accounting, investor relations and other general and administrative expenses associated with operating as a public company.

Our net operating losses may fluctuate significantly from period to period, depending upon the timing of our expenditures on research and development activities. Cash used to fund operating expenses is impacted by the timing of when we pay these expenses, as reflected in the change in our accounts payable and accrued expenses and other current liabilities.

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As a result, we will need additional financing to support our continuing operations. To date, we have funded our operations primarily with the proceeds from the issuance and sale of our Preferred Stock. We do not have any products approved for sale and have not generated any revenue from product sales since our inception. We do not expect to generate revenue from any product candidates that we develop until we obtain regulatory approval for one or more of such product candidates and commercialize our products or enter into collaboration arrangements with third parties. Until we can generate sufficient product revenue to finance our cash requirements, if ever, we expect to fund our operations through equity offerings or debt financings, credit or loan facilities, potentially other capital resources, or a combination of one or more of these funding sources. We may be unable to raise additional funds or enter into other agreements or arrangements when needed on favorable terms, or at all. If we fail to raise capital or enter into such agreements as and when needed, we may have to significantly delay, scale back, or discontinue the development or commercialization of verekitug and one or more potential future product candidates, which could have a material adverse effect on our business, results of operations or financial condition.

Because of the numerous risks and uncertainties associated with research and development of product candidates, we are unable to predict the timing or amount of increased expenses or when or if we will be able to achieve or maintain profitability. Even if we are able to generate revenue from product sales, we may not become profitable. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce or terminate our operations.

Asset purchase and license agreements

Below is a summary of the key terms for certain of our asset purchase and license agreements. For a more detailed description of these agreements, see the section titled “Business—Asset purchase and license agreements.”

Asset purchase agreement with Astellas and related letter agreement with Astellas and Regeneron

In October 2021, we entered into an asset purchase agreement (the “Astellas Asset Purchase Agreement”) with Astellas Pharma, Inc. (“Astellas”). Pursuant to the Astellas Asset Purchase Agreement, we purchased from Astellas the compound designated by Astellas as ASP7266 (the “Compound,” which was subsequently renamed by us as verekitug). There are no future payments owed to Astellas under the Astellas Asset Purchase Agreement.

In connection with the Astellas Asset Purchase Agreement, we concurrently entered into a letter agreement (the “Regeneron Letter Agreement”) with Astellas and Regeneron Pharmaceuticals, Inc. (“Regeneron”).

The Regeneron Letter Agreement relates to a prior Non-Exclusive License and Material Transfer Agreement (the “Terminated Regeneron License Agreement”) that Regeneron and Astellas entered into in March 2007, as amended in July 2010 and subsequently terminated in June 2018, subject to certain surviving rights and obligations of both Regeneron and Astellas. Under the Terminated Regeneron License Agreement, Astellas utilized Regeneron’s human antibody technology in its internal research programs to discover certain product candidates, including the Compound, which it sold to us under the Astellas Asset Purchase Agreement.

Under the Regeneron Letter Agreement, Astellas assigned and transferred to us and we assumed and accepted certain of Astellas’ surviving rights and obligations under the Terminated Regeneron License Agreement, including Astellas’ royalty payment, reporting and indemnification obligations in connection with activities conducted by us or on our behalf with respect to the Compound. By assuming and accepting Astellas’ surviving obligations under the Terminated Regeneron License Agreement, we are required to pay Regeneron mid-single-

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digit percentage royalties on aggregate worldwide net sales of any product developed by or on behalf of us that contains the Compound as an ingredient or component of the materials sold (a “Royalty Product”) during the royalty term. The royalties are determined on a product-by-product and country-by-country basis and expire on the later of (i) a specified number of years after the launch of a given Royalty Product in a given country and (ii) the expiration of the last valid claim of royalty bearing company patent rights claiming or covering such Royalty Product in such country. To date, we have not made any royalty payments to Regeneron under the Regeneron Letter Agreement.

Exclusive license agreement with Maruho

In October 2021, we entered into a license agreement with Maruho (as amended, the “Maruho License Agreement”), under which we granted Maruho an exclusive, irrevocable, perpetual, royalty-free, sublicensable (subject to our right of first negotiation) license. Under the Maruho License Agreement, Maruho is responsible for and controls, at its sole expense, (i) the preparation, filing, prosecution, obtaining and maintaining all regulatory approvals in Japan and (ii) the promotion, marketing, sale and commercialization in Japan.

Pursuant to the Maruho License Agreement, we maintain our responsibility for and control the global research and development of the Maruho license product, including in Japan. We will conduct specified clinical trial activities for Japan as part of our global research and development plan. Maruho will reimburse us for the costs of these research and development activities, including the cost of drug supply. Apart from reimbursement of qualifying research and development expenses, Maruho is not obligated to make any future payments under the Maruho License Agreement.

License agreement with Lonza

In October 2021, in connection with the Astellas Asset Purchase Agreement, we entered into a license agreement with Lonza Sales AG (“Lonza”) (as amended, the “Lonza License Agreement”). Pursuant to the Lonza License Agreement, we obtained a worldwide, non-exclusive, sublicensable (subject to Lonza’s right of pre-approval with respect to any sublicense of manufacturing activities) license to certain intellectual property rights owned by Lonza. Lonza was the originator of the master cell bank for the Compound developed by Astellas. As consideration for the rights and licenses granted to us under the Lonza License Agreement, we agreed to pay Lonza a less-than-one-percent royalty on net sales of the Compound if Lonza manufactures the Compound for us. If we, our affiliates or a strategic partner manufactures the Compound, we agreed to pay a less-than-one-percent royalty on net sales of the Compound and a low-six-figure annual payment. If we sublicense the manufacturing of the Compound to a third-party manufacturer, we agreed to pay a low-single-digit percentage royalty on net sales of the Compound and a mid-six-figure annual payment per sublicense for the duration of such sublicense. Any royalties due under the Lonza License Agreement are payable on a country-by-country basis until ten years from the first commercial sale of the Compound in that particular country. We have the right to terminate the Lonza License Agreement at any time by providing 60 days prior written notice to Lonza. During each of the years ended December 31, 2023 and 2022, we made an annual payment to Lonza pursuant to the Lonza License Agreement and recognized it as research and development expense in the consolidated statement of operations and comprehensive loss. To date, we have not made any royalty payments to Lonza under the Lonza License Agreement.

Components of our results of operations

Collaboration revenue—related party

To date, we have not generated any revenue from product sales and do not expect to generate any revenue from product sales in the foreseeable future. All of our collaboration revenue has been derived from the

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Maruho License Agreement. If our development efforts for verekitug or any potential future product candidates are successful and result in regulatory approval, or if we enter into collaboration or license agreements with third parties, we may generate revenue in the future from product sales, royalties or payments from such collaboration or license agreements, or a combination of product sales and payments from such agreements.

Operating expenses

Research and development expenses

Research and development expenses consist primarily of costs incurred for our preclinical research and clinical development of verekitug, which include:

- expenses incurred under agreements with third parties, including contract research organizations, (“CROs”), CMOs and investigative sites that conduct clinical trials on our behalf, and costs related to the Maruho License Agreement;
- salaries, benefits and other related costs, including stock-based compensation expense, for personnel engaged in research and development functions and costs related to the Maruho License Agreement;
- costs of outside consultants, including their fees and related travel expenses; and
- costs associated with license agreements to support the development of our technology.

We expense all research and development expenses in the periods in which they are incurred. Our direct research and development expenses are tracked on an indication-by-indication basis and consist of costs that include CROs and investigative sites that conduct clinical trials on our behalf, third party vendors that conduct research and preclinical studies on our behalf and outside consulting costs directly allocable to an indication. We do not allocate costs related to CMOs that manufacture verekitug for use in our preclinical studies and clinical trials as they are not distinguishable by indication but support all current and potential indications under the verekitug program. Additionally, we do not allocate costs for employee costs, including stock-based compensation, consulting, or other indirect costs that cannot be directly allocated to a specific indication.

We expect that our research and development expenses will increase in the future as we advance verekitug through clinical trials and any potential future product candidates that we may develop through preclinical studies and clinical trials, in pursuit of regulatory approval. Product 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 estimated costs of the efforts that will be necessary to complete the development of verekitug and any potential future product candidates. We are also unable to predict when, if ever, material net cash inflows will commence from sales or licensing of verekitug or any potential future product candidates. This is due to the numerous risks and uncertainties associated with drug development, including the uncertainty of:

- the scope, timing, progress, costs and results of the ongoing development of verekitug as well as for potential discovery, preclinical development and clinical trials for other potential future product candidates;
- the number of clinical trials required for regulatory approval of verekitug or our potential future product candidates;
- the costs, timing and outcome of regulatory review of verekitug or our potential future product candidates;

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- the costs associated with acquiring or licensing additional product candidates, technologies or assets, including the timing and amount of any milestones, royalties or other payments due in connection with our acquisitions and licenses;
- the cost of manufacturing clinical supplies of verekitug or our potential future product candidates;
- the costs associated with hiring additional clinical, quality control, medical, scientific and other technical personnel to support the ongoing development of verekitug;
- the costs associated with increasing our headcount as we expand our research and development organization and market development and pre-commercial planning activities;
- the effectiveness of our approach to identifying target patient populations;
- our ability to maintain existing, and establish new, strategic collaborations or other arrangements and the financial terms of any such agreements, including the timing and amount of any future milestone, royalty or other payments due under any such agreement prior to regulatory approval;
- the effect of macroeconomic trends including inflation and rising interest rates; and
- addressing any potential supply chain interruptions or delays.

A change in the outcome of any of these factors or underlying variables with respect to the development of a product candidate could significantly change the costs and timing associated with the development of that product candidate.

General and administrative expenses

General and administrative expenses consist primarily of salaries and benefits, including stock-based compensation expense, for personnel in executive, finance, accounting, legal, human resources, business development, information technology, and other administrative functions. General and administrative expenses also include legal fees relating to patents and corporate matters; professional fees for accounting, auditing, tax, and consulting services; insurance costs; travel expenses; and facility-related expenses, which include depreciation costs and expenses for rent and maintenance of facilities and other operating costs.

We expect that our general and administrative expenses will increase in the future as we increase our headcount and expand our infrastructure to support the continued research and development of our programs and the growth of our business. We also expect to incur increased expenses associated with operating as a public company, including costs of accounting, audit, legal, regulatory, tax-related services, compliance with SEC rules and regulations and listing requirements, director and officer insurance premiums and investor relations costs.

Other income (expense)

Change in fair value of preferred stock tranche right liability

In connection with our Preferred Stock financings, we issued shares under stock purchase agreements that provided an obligation for us to issue additional Preferred Stock in subsequent closings upon the satisfaction of certain conditions. The Series A and Series B tranche right liabilities were settled in February 2023 and April 2024, respectively, upon the satisfaction of relevant conditions. We classified the preferred stock tranche rights as liabilities on our consolidated balance sheets and initially recorded them at fair value upon the issuance date of the rights. We remeasured the tranche right liabilities to fair value at each reporting date and immediately prior to being settled, and recognized changes in the fair value of the preferred stock tranche right liability as a

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component of other income (expense) in our consolidated statements of operations and comprehensive loss. Upon settlement of the tranche rights, we derecognized the related liability, and stopped recognizing changes in the fair value of the preferred stock tranche right liability.

Interest income

Interest income consists of interest earned on money market funds, U.S. treasury bills and U.S. government agency bond investments.

Other income (expense), net

Other income (expense), net consists of miscellaneous income and expense unrelated to our core operations.

Income taxes

We recorded a full valuation allowance of our deferred tax asset position as of December 31, 2023 and 2022 as we believe it was more likely than not that we would not be able to utilize our deferred tax assets.

As of December 31, 2023, we had federal and state net operating losses (“NOLs”) carryforwards of \$25.0 million and \$27.6 million, respectively. The federal NOLs are not subject to expiration and are limited in utilization to 80% of taxable income and the state NOLs begin to expire in 2041. As of December 31, 2023, we had federal and state research and development credits of \$0.8 million which will begin to expire in 2043 and 2037, respectively.

Results of operations

Comparison of the years ended December 31, 2023 and 2022

The following table summarizes our results of operations for the years ended December 31, 2023 and 2022:

(in thousands)	Year ended December 31,		Change
	2023	2022	
Collaboration revenue—related party	\$ 2,380	\$ 1,212	\$ 1,168
Operating expenses:			
Research and development	31,799	18,657	13,142
General and administrative	10,695	6,464	4,231
Total operating expenses	42,494	25,121	17,373
Loss from operations	(40,114)	(23,909)	(16,205)
Other income (expense):			
Change in fair value of preferred stock tranche right liabilities	15,527	(77)	15,604
Interest income	4,165	205	3,960
Other expense, net	(115)	(87)	(28)
Total other income, net	19,577	41	19,536
Net loss	\$(20,537)	\$(23,868)	\$ 3,331

Collaboration revenue—related party

Related party collaboration revenue was \$2.4 million for the year ended December 31, 2023 compared to \$1.2 million for the year ended December 31, 2022. The increase of \$1.2 million was due to the continued progress under the Maruho License Agreement. This progress is primarily related to the work performed associated with our Phase 2 clinical trial in patients with severe asthma.

Research and development expenses

(in thousands)	Year ended December 31,		Change
	2023	2022	
Direct research and development expenses by program:			
Verekitug program:			
Asthma indication	\$14,537	\$ 7,673	\$ 6,864
CRSwNP indication	3,330	79	3,251
Unallocated research and development expense:			
Personnel expenses (including stock-based compensation)	7,588	2,243	5,345
Manufacturing costs	3,373	7,166	(3,793)
Professional fees	1,495	1,063	432
Other unallocated expenses	1,476	433	1,043
Total research and development expense	\$31,799	\$18,657	\$13,142

Research and development expenses were \$31.8 million for the year ended December 31, 2023 compared to \$18.7 million for the year ended December 31, 2022. The increase of \$13.1 million was primarily driven by an increase of \$10.1 million in expenses directly related to our verekitug program and \$3.0 million of unallocated research and development expenses.

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The increase in direct costs of \$6.9 million related to the asthma indication are primarily due to costs associated with our Phase 1 clinical trial and preparing for our Phase 2 clinical trial during the year ended December 31, 2023 compared to only incurring Phase 1 clinical trial costs during the same period in 2022. The increase in direct costs related to the CRSwNP indication are primarily due to a \$3.2 million increase in costs associated with preparing for our CRSwNP Phase 2 clinical trial at the end of 2023 for which there were no comparable expenses during the same period of 2022.

The increase in personnel expenses of \$5.3 million was primarily due to increased headcount in our research and development function. Personnel expenses for the year ended December 31, 2023 and 2022 included stock-based compensation expense of \$1.1 million and \$0.4 million, respectively. The increase of \$0.4 million in professional fees was related to quality and manufacturing services to support the verekitug program. The increase in other unallocated expenses was primarily driven by a \$0.7 million increase in preclinical studies to support the verekitug clinical trials and a \$0.2 million increase in clinical trial insurance. The decrease in manufacturing costs of \$3.8 million was attributable to a decrease in CMO costs for the development of Phase 2 clinical trial material during the year ended December 31, 2023 compared to the same period in 2022.

We begin to separately track program expenses at candidate nomination, at which point we accumulate all direct external program costs incurred to support that program to date. Through December 31, 2023, we have incurred approximately \$22.9 million and \$3.4 million of direct external expenses for the development of verekitug for severe asthma and CRSwNP, respectively, since their candidate nominations.

General and administrative expenses

(in thousands)	Year ended December 31,		Change
	2023	2022	
Personnel expenses (including stock-based compensation)	\$ 6,352	\$ 3,736	\$ 2,616
Professional fees	3,347	2,211	1,136
Facility-related and other	996	517	479
Total general and administrative expense	\$ 10,695	\$ 6,464	\$ 4,231

General and administrative expenses were \$10.7 million for the year ended December 31, 2023 compared to \$6.5 million for the year ended December 31, 2022. The increase of \$4.2 million was primarily driven by an increase in personnel expenses of \$2.6 million due to increased headcount in our general and administrative functions. Personnel expenses for the year ended December 31, 2023 and 2022 included stock-based compensation expense of \$2.4 million and \$0.9 million, respectively. Additionally, there was an increase of \$1.1 million of professional fees including increased legal and audit fees. Facility-related and other expenses increased by \$0.5 million primarily due to an increase in rent in connection with additional leased office space at the same location on a month-to-month basis during the year ended December 31, 2023.

Other income (expense)

Change in fair value of preferred stock tranche right liabilities

We recorded other income for the change in the fair value of the preferred stock tranche right liabilities of \$15.5 million for the year ended December 31, 2023, including \$6.6 million related to the Series A preferred stock tranche right liability and \$8.9 million related to the Series B preferred stock tranche right liability, as compared to other expense of \$0.1 million for the year ended December 31, 2022 related to the Series A preferred stock tranche right liability. The change in the fair value of the Series A preferred stock tranche right liability was due to changes in the assumptions used in the valuation model during the periods, including the

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expected fair value of the Series A Preferred Stock and the probability and expected timing of achieving certain milestone events. The change in fair value of the Series B preferred stock tranche right liability was due to changes in the assumptions used in the valuation model from its issuance date in June 2023 through December 31, 2023, including the estimated fair value of the Series B Preferred Stock, volatility and estimated time to the tranche closing.

Interest income

Interest income was \$4.2 million and \$0.2 million for the years ended December 31, 2023 and 2022, respectively, representing an increase of \$4.0 million. The increase in interest income was due to the increased balances in our money market funds, U.S. treasury bills and U.S. government agency bonds held during 2023, as compared to 2022.

Liquidity and capital resources

Since our inception, we have incurred significant operating losses. We have not yet commercialized verekitug and we do not expect to generate revenue from product sales of verekitug for the next several years, if at all. We have financed our operations primarily through the issuance and sale of our Preferred Stock. As of December 31, 2023, we have received gross proceeds of \$250.0 million from sales of our Preferred Stock and received \$3.5 million in connection with our research and development arrangement with Maruho. In April 2024, we received gross cash proceeds of \$150.0 million from the Series B Option closing. As of December 31, 2023, we had cash, cash equivalents and short-term investments of \$109.8 million, which does not include the gross proceeds of \$150.0 million we received from the Series B Option closing in April 2024.

Cash flows

The following table summarizes our sources and uses of cash for each of the periods presented:

(in thousands)	Year ended December 31,	
	2023	2022
Net cash used in operating activities	\$ (37,926)	\$ (19,021)
Net cash used in investing activities	(82,842)	(82)
Net cash provided by financing activities	129,550	9,963
Net increase (decrease) in cash and cash equivalents	\$ 8,782	\$ (9,140)

Operating activities

During the year ended December 31, 2023, operating activities used \$37.9 million of cash, primarily resulting from our net loss of \$20.5 million, net non-cash gains of \$13.1 million and net cash used by changes in our operating assets and liabilities of \$4.3 million. Net non-cash gains included a gain related to the change in fair value of preferred stock tranche right liabilities of \$15.5 million, stock-based compensation expense of \$3.4 million, a gain of \$1.3 million related to amortization of premiums and accretion of discounts on short-term investments, issuance costs allocated to the Series B preferred stock tranche right liability of \$0.1 million, depreciation and amortization expense of \$0.1 million and \$0.1 million of non-cash lease expense. Net cash used by changes in operating assets and liabilities was primarily driven by a \$6.2 million increase in prepaid expenses and other current assets due to payments made to a CRO for start-up costs related to our Phase 2 clinical trials, partially offset by a \$1.3 million increase in accounts payable, a \$0.4 million increase in accrued

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expenses and other current liabilities and a \$0.3 million decrease in related party accounts receivable. The decrease in related party accounts receivable resulted primarily from the timing of revenue recognition compared to the timing of payments from Maruho for qualifying reimbursable expenses related to the Maruho License Agreement.

During the year ended December 31, 2022, operating activities used \$19.0 million of cash, primarily resulting from our net loss of \$23.9 million, partially offset by changes in our operating assets and liabilities of \$3.4 million and non-cash charges of \$1.4 million. Net non-cash charges included stock-based compensation expense of \$1.3 million, a charge related to the change in fair value of preferred stock tranche rights liabilities of \$0.1 million and non-cash lease expense of \$0.1 million. Net cash provided by changes in operating assets and liabilities was driven by a \$4.0 million increase in accrued expenses and other current liabilities primarily related to manufacturing and clinical costs and a \$0.5 million increase in accounts payable, partially offset by a \$0.6 million increase in prepaid expenses and other current assets and a \$0.4 million increase in related party accounts receivable. The increase in related party accounts receivable resulted primarily from the timing of revenue recognition compared to the timing of payments from Maruho for qualifying reimbursable expenses related to the Maruho License Agreement.

For all periods presented, changes in prepaid expenses and other assets, accounts payable and accrued expenses and other current liabilities not described above were generally due to the growth in our business, the advancement of our clinical programs, and the timing of vendor invoicing and payments.

Investing activities

During the year ended December 31, 2023, net cash used in investing activities was \$82.8 million, consisting primarily of purchases of short-term investments of \$129.0 million, net of maturities of short-term investments of \$46.3 million and purchases of property and equipment of \$0.1 million.

During the year ended December 31, 2022, net cash used in investing activities was not significant.

Financing activities

During the year ended December 31, 2023, net cash provided by financing activities was \$129.6 million, consisting of \$80.0 million in proceeds from the issuance of Series A Preferred Stock, \$49.4 million in net proceeds from the issuance of Series B Preferred Stock, including the Series B preferred stock tranche right liability, and \$0.1 million in net proceeds from the exercise of stock options.

During the year ended December 31, 2022, net cash provided by financing activities was \$10.0 million, all of which consisted of net proceeds from the issuance of Series A Preferred Stock.

Funding requirements

We expect our research and development and general and administrative expenses and our operating losses will increase in the future as we advance verekitug through clinical trials and any potential future product candidates that we may develop through preclinical studies and clinical trials, in pursuit of regulatory approval. Due to the numerous risks and uncertainties associated with research, development and commercialization of product candidates, changes in the outcome of any factors with respect to the development of a product candidate could mean a significant change in the costs and timing associated with the development of that product candidate. In addition, upon the completion of this offering, we expect to incur increased expenses associated with operating as a public company. Our future capital requirements, both short- and long-term, will depend on a variety of factors, including, but not limited to:

- the rate of progress in the development of verekitug and our potential future product candidates, if any;

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- the scope, progress, results and costs of non-clinical studies, preclinical development, laboratory testing and clinical trials for verekitug and any potential future product candidates and associated development programs;
- the number and scope of preclinical studies and clinical trials that we pursue;
- the costs, timing, and outcomes of seeking and obtaining approvals by the FDA and comparable foreign regulatory authorities, including the potential for such authorities to require that we perform more preclinical studies or clinical trials than those that we currently expect or for such authorities to change their requirements on studies that had previously been agreed to;
- our ability to establish licensing or collaboration agreements or other strategic agreements;
- the achievement of milestones or other developments under any licensing or collaboration agreements;
- the extent to which we are obligated to reimburse, or entitled to reimbursement of, clinical trial costs under any license or collaboration agreements;
- the costs to establish, maintain, expand, enforce, and defend the scope of our intellectual property portfolio, including the amount and timing of any payments we may be required to make, or that we may receive, in connection with licensing, preparing, filing, prosecuting, defending and enforcing any patents or other intellectual property rights;
- the costs associated with successfully defending against any claims by third parties that we have infringed, misappropriated or otherwise violated any intellectual property of any such third party;
- the costs of acquiring, licensing, or investing in additional businesses, products, product candidates, and technologies that we may identify;
- the costs to manufacture or to have manufactured sufficient, reliable, timely, and affordable supply of materials including commercial-grade product formulations that can be used in clinical trials and for commercial launch;
- the costs of commercializing product candidates, if approved, whether alone or in collaboration with others;
- the amount of revenue, if any, received from commercial sales of our product candidates, should any of our product candidates receive marketing approval;
- the costs of building or contracting sales, marketing, and/or distribution capabilities, systems, and internal infrastructure for any product candidate that receives marketing approval;
- the impact of competitors' product candidates and technological advances and other market developments;
- the expenses needed to attract and retain skilled personnel; and
- the size of the markets and degree of market acceptance of any product candidates in territories in which we receive regulatory approval, including product pricing, product coverage, and the adequacy of reimbursement by third-party payors.

Our business plans may change in the future and we will continue to require additional capital to meet the needs of our operating expenses. See the section titled "Risk factors—Risks related to our limited operating history, financial condition and need for additional capital."

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We believe that the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, will enable us to fund our operating expenses and capital expenditure requirements through . We have based this estimate on assumptions that may prove to be wrong, and we could utilize our available capital resources sooner than we expect.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our operations through a combination of equity offerings, debt financings, collaborations, strategic alliances and marketing, distribution or licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. 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 acquisitions or capital expenditures or declaring dividends. If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates, or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings or other arrangements when needed, we would be required to delay, scale back or discontinue our research, product development or future commercialization efforts, or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Contractual obligations and other commitments

Leases

As of December 31, 2023, we had future operating lease liabilities of less than \$0.1 million, with payments due through June 30, 2024, after which we will continue to pay rent on a month-to-month basis.

Asset acquisition from Astellas and related letter agreement with Astellas and Regeneron

In October 2021, we entered into the Astellas Asset Purchase Agreement with Astellas, and concurrently entered into the Regeneron Letter Agreement with Astellas and Regeneron.

Under the Regeneron Letter Agreement, Astellas assigned and transferred to us and we assumed and accepted certain of Astellas' surviving rights and obligations under the Terminated Regeneron License Agreement. By assuming and accepting Astellas' surviving obligations under the Terminated Regeneron License Agreement, we are required to pay Regeneron mid-single-digit percentage royalties on aggregate worldwide net sales of a Royalty Product during the royalty term.

The royalties are determined on a product-by-product and country-by-country basis and expire on the later of (i) a specified number of years after the launch of a given Royalty Product in a given country and (ii) the expiration of the last valid claim of royalty bearing company patent rights claiming or covering such Royalty Product in such country.

To date, we have not made any royalty payments to Regeneron under the Regeneron Letter Agreement.

License agreement with Lonza

As consideration for the rights and licenses granted to us under the Lonza License Agreement, we agreed to pay Lonza the following:

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- If Lonza manufactures the Compound for us, a less-than-one percent royalty on net sales of the Compound;
- If we, our affiliates or a strategic partner manufacture the Compound, a less-than-one percent royalty on net sales of the Compound and a low-six-figure annual payment first payable upon initiation of a phase 2 clinical trial of the Compound and thereafter on each anniversary of such date; and
- If we sublicense the manufacturing of the Compound to a third-party manufacturer, a low-single-digit percentage royalty on net sales of the Compound and a mid-six-figure annual payment per sublicense for the duration of the sublicense, first payable upon the commencement date of such sublicense.

Any royalties due under the Lonza License Agreement are payable on a country-by-country basis until ten years from the first commercial sale of the Compound in that particular country.

During each of the years ended December 31, 2023 and 2022, we made an annual payment to Lonza pursuant to the Lonza License Agreement which was recognized as research and development expense in the consolidated statements of operations and comprehensive loss. To date, we have not made any royalty payments to Lonza under the Lonza License Agreement.

Research and development

We enter into contracts in the normal course of business with CROs and investigator sites that conduct clinical trials on our behalf, CMOs that manufacture product candidates for use in our preclinical studies and clinical trials, and third-party vendors, including CROs, that conduct research and preclinical studies on our behalf. Prepayments under these arrangements can generally be repurposed or the services themselves cancelable upon prior written notice, though cancellation fees are likely. Payments due upon cancellation consist only of payments for services provided and expenses incurred up to the date of cancellation.

Critical accounting estimates and significant judgments

Our management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. Generally Accepted Accounting Principles ("U.S. GAAP"). The preparation of our financial statements and related disclosures requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, revenues and expenses, and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements. We base our estimates on historical experience, known trends and events, and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities and revenues and expenses that are not readily apparent from other sources. We evaluate our estimates and assumptions on an ongoing basis. 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 consolidated financial statements included elsewhere in this prospectus, we believe that the following accounting policies are those most critical to the judgments and estimates used in the preparation of our financial statements.

Prepaid and accrued research and development expenses

As part of the process of preparing our consolidated financial statements, we are required to estimate our research and development expenses. This process involves reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed on our behalf, and estimating the level of service performed and the associated costs incurred for the services when we have not yet been invoiced or otherwise notified of the actual costs. The majority of our service providers invoice us in arrears for services performed, on a pre-determined schedule or when contractual milestones are met; however, some

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require advanced payments. We make estimates of our accrued expenses as of each balance sheet date in our consolidated financial statements based on facts and circumstances known to us at that time. Examples of estimated accrued research and development expenses include:

- expenses incurred under agreements with third parties, including CROs and investigative sites that conduct research, preclinical studies and clinical trials on our behalf, and in connection with the Maruho License Agreement;
- expenses incurred under agreements with third parties, including CMOs, that develop and manufacture our product candidate for use in our preclinical studies and clinical trials; and
- other providers and vendors in connection with research and development activities.

We base our expenses related to preclinical studies and clinical trials on our estimates of the services received and efforts expended pursuant to quotes and contracts with multiple CROs, investigative sites, CMOs, and third-party vendors that conduct research, preclinical studies, and conduct clinical trials on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. 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 expense.

Payments under some of these contracts depend on factors such as the successful enrollment of patients and the completion of clinical trial milestones. In accruing fees, we estimate the time period over which services will be performed, enrollment of patients, number of sites activated, 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 amount of prepaid expense accordingly. Although we do not expect our estimates to be materially different from amounts actually incurred, our understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in us reporting amounts that are too high or too low in any particular period. To date, we have not made any material adjustments to our prior estimates of accrued research and development expenses.

We also record advance payments to service providers as prepaid expenses and other current assets, which are expensed as the contracted services are performed. If the actual timing of the performance of services varies from the estimate, then we adjust the amount of the accrued expense or the prepaid expense accordingly.

Stock-based compensation

We measure stock-based awards granted to employees, directors, and non-employee service providers based on their fair value on the date of the grant and recognize compensation expense for those awards over the requisite service period, which is generally the vesting period of the respective award. Generally, we issue stock option awards with service-based vesting conditions and record the expense for these awards using the straight-line method such that the aggregate amount of expense recognized is at least the fair value of what was legally vested. Certain personnel (including our former Chief Executive Officer, Chief Medical Officer and former Chief Operating Officer) were issued stock option awards with performance-based vesting conditions, in addition to continued service, that are monitored for when it is considered probable that the performance condition will be achieved and we recognize stock-based compensation expense using graded vesting. After the achievement of the performance condition in February 2023, the stock-based compensation for our performance-based stock options was solely subject to continued service until the fourth anniversary of the second closing of our Series A Preferred Stock. The fair value of each stock option grant is estimated on the date of grant using the Black-Scholes option-pricing model, which requires inputs based on certain subjective assumptions. These assumptions include:

- *Fair value of common stock.* See the subsection titled “—Determination of fair value of common stock” below.

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- *Expected term.* The expected term represents the period that our stock option awards granted are expected to be outstanding and is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term).
- *Expected volatility.* Because we do not have any trading history for our common stock, the expected volatility is estimated using averages of the historical volatility of our peer group of companies for a period equal to the expected term of the stock options granted. Our peer group of publicly traded companies was chosen based on their similar size, stage in the life cycle or area of specialty. We intend to continue to consistently apply this process using the same or a similar peer group of public companies, until a sufficient amount of historical information regarding the volatility of our own common stock price becomes available.
- *Risk-free interest rate.* The risk-free interest rate is based on the interest rates paid on securities issued by the U.S. Treasury with a term approximating the expected term of stock options granted.
- *Expected dividend.* We have never paid, and do not anticipate paying, cash dividends on our common stock. Therefore, the expected dividend yield was assumed to be zero.

Changes in the foregoing assumptions can materially affect the estimate of fair value and ultimately how much share-based compensation expense is recognized; and the resulting change in fair value, if any, is recognized in our statements of operations during the period the related services are rendered. These inputs are subjective and generally require significant analysis and judgment to develop.

Determination of fair value of common stock

As a privately held company, there has been no public market for our common stock to date. The estimated fair value of our common stock has been determined by our board of directors as of the date of each option grant, with input from management, considering the most recently available third-party valuations of our common stock and our board of directors' assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, Valuation of Privately-Held-Company Equity Securities Issued as Compensation.

Our third-party valuations of common stock were prepared using the option-pricing method, or OPM, which used a market approach to estimate our enterprise value. The OPM treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceeded the value of the preferred stock liquidation preferences at the time of the liquidity event, such as a strategic sale or a merger.

These third-party valuations resulted in a valuation of our common stock of \$3.48, \$4.47 and \$5.10 per share as of October 31, 2022, February 17, 2023 and June 6, 2023, respectively.

In addition to considering the results of these third-party valuations, our board of directors considered various objective and subjective factors to determine the fair value of our common stock as of each grant date, including:

- the prices at which we sold shares of preferred stock and the superior rights and preferences of the preferred stock relative to our common stock at the time of each grant;
- the lack of an active public market, for our common stock and preferred stock;

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- the progress of our research and development programs, including the status and results of preclinical studies and clinical trials for our product candidates;
- our stage of development and commercialization and our business strategy, and material risks to our business;
- external market conditions affecting the pharmaceutical and biopharmaceutical industry and trends within each industry;
- our financial position, including cash on hand, and our historical and forecasted performance and operating results;
- the likelihood of achieving a liquidity event, such as an initial public offering or sale of our company in light of prevailing market conditions; and
- the analysis of initial public offerings and the market performance of similar companies in the biopharmaceutical industry.

The assumptions underlying these valuations represented management's best estimate, which involved inherent uncertainties and the application of management's judgment. As a result, if we had used significantly different assumptions or estimates, the fair value of our common stock and our stock-based compensation expense could have been materially different. For the year ended December 31, 2023, if there was a 10% increase in the valuation of our common stock at each of the valuation dates listed above and to the underlying exercise price of stock options granted during the year assuming that such options were granted with an exercise price equal to the fair value of common stock, the impact to our stock-based compensation expense would have been a \$3.8 million increase. If there was a 10% decrease in the valuation of our common stock at each of the valuation dates listed above and to the underlying exercise price of stock options granted during the year assuming that such options were granted with an exercise price equal to the fair value of common stock, the impact to our stock-based compensation expense would have been a \$3.1 million decrease for the year ended December 31, 2023. Our estimate of fair value is reviewed and approved by our board of directors.

Once a public trading market for our common stock has been established in connection with the completion of this offering, it will no longer be necessary for our board of directors to estimate the fair value of our common stock in connection with our accounting for stock options and other such awards we may grant, as the fair value of our common stock will be determined based on the quoted market price of our common stock.

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Options granted

The following table summarizes by grant date the number of shares subject to options granted between January 1, 2023 and December 31, 2023, the per share exercise price of the options, the per share fair value of common stock underlying the options on each grant date, and the per share estimated fair value of the options:

Grant Date	Number of shares subject to options granted	Per share exercise price of options	Per share fair value of common stock	Per share estimated fair value of options
January 6, 2023	14,000	\$ 3.48	\$ 3.48	\$ 2.45
March 2, 2023	45,585	\$ 4.47	\$ 4.47	\$ 3.17
March 3, 2023	553,430	\$ 4.47	\$ 4.47	\$ 3.17
March 14, 2023	34,870	\$ 4.47	\$ 4.47	\$ 3.17
April 8, 2023	42,918	\$ 4.47	\$ 4.47	\$ 2.98
June 12, 2023	40,235	\$ 5.10	\$ 5.10	\$ 3.42
July 18, 2023	80,471	\$ 5.10	\$ 5.10	\$ 3.37
August 9, 2023	24,141	\$ 5.10	\$ 5.10	\$ 3.31
August 10, 2023	33,900	\$ 5.10	\$ 5.10	\$ 3.31
August 14, 2023	287,500	\$ 5.10	\$ 5.10	\$ 3.31
August 15, 2023	10,729	\$ 5.10	\$ 5.10	\$ 3.31
September 6, 2023	48,282	\$ 5.10	\$ 5.10	\$ 3.40

Valuation of preferred stock tranche right liabilities

In connection with our Preferred Stock financings, we issued shares under stock purchase agreements that provided an obligation for us to issue additional Preferred Stock in subsequent closings upon the satisfaction of certain conditions. We classified each of the Series A and Series B preferred stock tranche rights as a liability on our consolidated balance sheets and initially recorded them at fair value upon the issuance date of the rights. We remeasured the preferred stock tranche right liabilities to fair value at each reporting date and recognized changes in the fair values as a component of other income, net in our consolidated statements of operations and comprehensive loss. We continued to recognize changes in the fair value of the preferred stock tranche right liabilities at each reporting date until settled.

Upon the satisfaction of relevant conditions in February 2023 and April 2024, respectively, the Series A and Series B preferred stock tranche right liabilities were remeasured to fair value for the last time and the change in fair value was recognized as a component of other income, net in our consolidated statements of operations and comprehensive loss. The balance of the respective preferred stock tranche right liability was derecognized upon settlement and the shares of the respective Preferred Stock issued were recorded at fair value.

The fair value of the Series A preferred stock tranche right liability was determined using a probability-weighted expected return method, which considered as inputs the fair value of the Series A Preferred Stock as of each measurement date, the fair value per share of the Series A Preferred Stock if the milestone is not met, probability of meeting certain milestone events, the expecting time until certain milestone events would be met, and the discount rate. The most significant assumptions in the valuation model impacting the fair value of the Series A preferred stock tranche right liability were the fair value of our Series A Preferred Stock and the probably and timing of achieving certain milestone events as of each measurement date. Changes in these inputs could have a significant impact on the fair value of the Series A preferred stock tranche right liability.

The fair value of the Series B preferred stock tranche right liability was determined using an option pricing model, which considered as inputs the estimated fair value of the Series B Preferred Stock as of each valuation

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date, the risk-free interest rate, volatility, expected dividends, and estimated time to the tranche closing. The most significant assumption in the valuation model impacting the fair value of the Series B preferred stock tranche right liability is the fair value of our Series B Preferred Stock as of each measurement date. The risk-free interest rate was determined by reference to the U.S. Treasury yield curve for time periods approximately equal to the remaining estimated time period of achievement of the specified milestones underlying the preferred stock tranche rights. The volatility was based on the historical volatility of publicly traded peer companies adjusted for the seniority of the Series B Preferred Stock. The expected dividend yield is based on the fact that we have never paid cash dividends and do not expect to pay any cash dividends in the foreseeable future. Changes in these inputs could have a significant impact on the fair value of the Series B preferred stock tranche right liability.

We determined the fair value per share of the underlying Preferred Stock by taking into consideration the most recent sales of our Preferred Stock, results obtained from third-party valuations and additional factors we deemed relevant.

Recently issued and adopted accounting pronouncements

A description of recently issued accounting pronouncements that may potentially impact our financial position and results of operations is disclosed in Note 2 to our consolidated financial statements included elsewhere in this prospectus.

Quantitative and qualitative disclosures about market risks

Market risk represents the risk of loss that may impact our financial position because of adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of exposure resulting from potential changes in interest rates, exchange rates or inflation. We do not hold financial instruments for trading purposes.

Interest rate risk

As of December 31, 2023, we had \$109.8 million in cash, cash equivalents and short-term investments, which consisted of cash, money market funds, U.S. treasury bills and U.S. government agency bonds. Our cash and cash equivalents are primarily maintained in accounts with multiple financial institutions in the United States. We may maintain cash and cash equivalent balances in excess of Federal Deposit Insurance Corporation (FDIC) limits. We do not believe that we are subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. Due to the short-term duration of our investment portfolio and the low risk profile of our investments, we believe an immediate 10% change in interest rates would not have a material effect on the fair market value of our investment portfolio. We have the ability to hold our investments until maturity, and therefore, we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a change in market interest rates on our investment portfolio.

Foreign currency exchange risk

All of our employees and our operations are currently located in the United States and our expenses are generally denominated in U.S. dollars. However, we do utilize certain vendors outside of the United States in connection with our research and development activities. As such, our expenses are denominated in both U.S. dollars and foreign currencies. Therefore, our operations are and will continue to be subject to fluctuations

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in foreign currency exchange rates. To date, foreign currency transaction gains and losses have not been material to our consolidated financial statements, and we have not had a formal hedging program with respect to foreign currency. We do not believe that a hypothetical 10% increase or decrease in exchange rates during any of the periods presented would have had a material effect on our consolidated financial statements included elsewhere in this prospectus.

Effects of inflation

Inflation generally affects us by increasing our labor and research and development expenses. We do not believe that inflation had a material effect on our business, financial condition, or results of operations during the years ended December 31, 2023 and 2022.

Emerging growth company and smaller reporting company status

The Jumpstart Our Business Startups Act of 2012 (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 applicable to public companies until those standards would otherwise apply to private companies. We have elected not to “opt out” of such extended transition period, which means that when a standard is issued or revised and it has different effective dates for public and private companies, we will adopt the new or revised standard at the time private companies adopt the new or revised standard and will do so until the earlier of the date that we (i) are no longer an emerging growth company or (ii) irrevocably elect to “opt out” of the extended transition period provided in the JOBS Act. As a result, our consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates. We may choose to early adopt any new or revised accounting standards whenever such early adoption is permitted for non-public companies.

We are also a “smaller reporting company,” meaning that the market value of our common stock and non-voting common stock held by non-affiliates plus the proposed aggregate amount of gross proceeds to us as a result of this offering is less than \$700.0 million and our annual revenue is less than \$100.0 million during the most recently completed fiscal year. We may continue to be a smaller reporting company after this offering if either (i) the market value of our common stock and non-voting common stock held by non-affiliates is less than \$250.0 million or (ii) our annual revenue is less than \$100.0 million during the most recently completed fiscal year and the market value of our common stock and non-voting common stock held by non-affiliates is less than \$700.0 million. If we are a smaller reporting company at the time we cease to be an emerging growth company, we may continue to rely on exemptions from certain disclosure requirements that are available to smaller reporting companies. Specifically, as a smaller reporting company we may choose to present only the two most recent fiscal years of audited financial statements in our Annual Report on Form 10-K and, similar to emerging growth companies, smaller reporting companies have reduced disclosure obligations regarding executive compensation.

Business Overview

We are a clinical-stage biotechnology company developing treatments for inflammatory diseases, with an initial focus on severe respiratory disorders. We are developing verekitug, a first-in-class antagonist of the receptor for Thymic Stromal Lymphopoietin (“TSLP”), a cytokine which is a clinically validated driver of inflammatory response positioned upstream of multiple signaling cascades that affect a variety of immune mediated diseases. Preclinical and clinical data to date demonstrate verekitug’s highly potent inhibition of the TSLP receptor, which we believe will translate to a differentiated product profile, including improved clinical outcomes, substantially extended dosing intervals and the potential to treat a broad spectrum of patients. We have advanced this highly potent monoclonal antibody into separate Phase 2 trials for the treatment of severe asthma and chronic rhinosinusitis with nasal polyps (“CRSwNP”) and plan to initiate development in chronic obstructive pulmonary disease (“COPD”). Our experienced team is committed to maximizing verekitug’s unique attributes to address the substantial unmet needs for patients underserved by today’s standard of care.

There are six biologics approved for the treatment of severe asthma and three of these are also approved for CRSwNP. While no biologic is currently approved for COPD, dupilumab (marketed as Dupixent by Sanofi and Regeneron Pharmaceuticals, Inc. (“Regeneron”)), an interleukin (“IL”)–4 receptor alpha antagonist (“IL–4Ra”), is currently under review by the U.S. Food and Drug Administration (“FDA”) for a potential additional approval as an add-on maintenance treatment in certain adults with uncontrolled COPD. Total estimated biologics sales in 2023 for asthma in the United States, Europe and Japan markets were approximately \$7.5 billion. In December 2021, tezepelumab (marketed as Tezspire by Amgen Inc. (“Amgen”) and AstraZeneca PLC (“AstraZeneca”)), a monoclonal antibody targeting the TSLP ligand, not the receptor, was approved by the FDA as an add-on maintenance treatment for adult and pediatric patients with severe asthma. Tezepelumab is the first and only treatment for severe asthma without any phenotype or biomarker limitation, highlighting the benefit of blocking TSLP signaling early in the inflammatory cascade as compared to other biologics’ mechanisms of action which are further downstream. Tezepelumab is projected to reach approximately \$2.0 billion to \$3.0 billion in peak global annual sales for severe asthma alone according to Evaluate Pharma and, according to Amgen, achieved more than 20% of new to brand share of prescriptions in the United States in its first commercial year. In May 2024, Amgen and AstraZeneca reported Phase 2a proof-of-concept data for tezepelumab for the treatment of moderate to very severe COPD at the American Thoracic Society (“ATS”) International Conference, supporting advancement into Phase 3 development. These clinical data further demonstrate the potential for a TSLP targeted therapy to treat a variety of inflammatory diseases. Based on these recent COPD data, tezepelumab is projected to achieve peak sales of approximately \$6.0 billion to \$10.0 billion according to third-party research analyst reports. Despite the availability of existing biologics for severe respiratory disease, there remains a high unmet need that limits the utilization of these therapies, including suboptimal symptom control and frequent dosing intervals.

Verekitug is, to our knowledge, the only monoclonal antibody currently in clinical development that targets and inhibits the TSLP receptor. In May 2024, we presented full proof-of-concept data from our multicenter, randomized, double-blind, placebo-controlled Phase 1b multiple ascending dose (“MAD”) clinical trial in asthma patients demonstrating that dosing with verekitug led to rapid and complete TSLP receptor occupancy, and reductions in fractional exhaled nitric oxide (“FeNO,” a disease-related biomarker) and blood eosinophil levels (“eos,” a disease-related biomarker) that were rapid, substantial and sustained for up to 24 weeks after the last dose. This study also demonstrated that verekitug is approximately 300-fold more potent than tezepelumab, which, combined with verekitug’s pharmacokinetic (“PK”) profile, enables an extended dosing interval of up to 24 weeks, compared to tezepelumab (four week dosing interval) and dupilumab (two week dosing interval). Furthermore, clinical data from our MAD trial indicate an approximately 50% greater effect on FeNO than has

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previously been reported for tezepelumab. Three Phase 1 clinical trials have been completed for verekitug, across a total of 120 participants, including 32 patients with asthma. In these trials, verekitug was well tolerated, demonstrated no evidence of clinically meaningful anti-drug antibodies (“ADAs”) and showed a predictable and consistent PK profile with high subcutaneous bioavailability. Based on its extended dosing interval and effect on broadly accepted disease-associated biomarkers, we believe verekitug, if approved, will be the preferred biologic for the treatment of severe asthma, CRSwNP and COPD.

Our current clinical development plan for verekitug is summarized in the pipeline chart below. Having established clinical proof-of-concept in asthma, we are currently conducting two separate multi-national, placebo-controlled, randomized Phase 2 clinical trials to investigate the efficacy of two extended dosing intervals of 12 and 24 weeks for patients with severe asthma and 12 weeks for patients with CRSwNP. These trials have been designed to serve as pivotal trials for potential future regulatory submissions. Data from these trials are expected in [redacted] for severe asthma and [redacted] for CRSwNP. We also plan to initiate development in COPD. Beyond these indications, we believe verekitug has broad potential, and we intend to leverage its unique attributes to develop it as a potential therapy for numerous TSLP-driven diseases.



*Plan to initiate activities to enable a development program in COPD

Leveraging TSLP biology to address unmet needs in severe asthma, CRSwNP and COPD

TSLP overview

Verekitug is a monoclonal antibody that targets and inhibits the TSLP receptor. TSLP is a member of a class of epithelial cytokines, also including IL-25 and IL-33, commonly referred to as alarmins. TSLP is primarily produced by epithelial cells, especially in the lung, gastrointestinal tract and skin. Dendritic cells, basophils, mast cells, keratinocytes and fibroblasts also produce TSLP with appropriate stimulation. In response to various environmental triggers, including viruses, bacteria, allergens, chemical irritants and physical injury, TSLP can initiate and amplify a wide range of innate and adaptive immune responses, including supporting epithelial barrier function, dendritic cell activation, type 2 innate lymphoid cell activation and survival, immune cell recruitment, induction of type 2 responses and regulation of B cell function. Beyond type 2 inflammation, data also support a role for TSLP in propagating non-type 2 inflammatory processes, including IL-17 production, modulation of airway structural cells and the promotion of fibrosis. As such, TSLP signaling is a central instigator of multiple downstream biologic pathways relevant to human diseases that are characterized by epithelial inflammation, including asthma, CRSwNP and COPD.

The TSLP signaling pathway is well-understood as a contributor to disease-driving proinflammatory pathways and is a clinically and commercially validated target for therapeutic development. Historically, development of biologics for severe asthma and related conditions has focused on type 2 inflammatory cytokines that are

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activated downstream in the TSLP signaling pathway, for instance IL-4, IL-5 and IL-13. However, in addition to its effect on type 2 inflammation, emerging evidence indicates that TSLP also impacts non-type 2 inflammation, which may result in broader downregulation of pathways relevant to the pathogenesis of multiple inflammatory diseases. We believe verekitug has the potential to be an impactful treatment in these conditions due to its high potency, extended dosing interval and ability to address unmet needs in multiple diseases characterized by TSLP-driven pathobiology.

Severe asthma

Asthma is a common respiratory disease characterized by chronic airway inflammation that is often underdiagnosed and under-treated. For some people, asthma can simply be a nuisance, for others it can interfere with daily life and potentially even be life-threatening. Of the more than 25 million Americans living with asthma, it is estimated that 5% to 10% suffer from severe asthma. Severe asthma is defined as asthma that remains uncontrolled despite optimized treatment with high-dose inhaled corticosteroids or that requires high-dosed inhaled corticosteroids to prevent symptoms from becoming uncontrolled. It is estimated that approximately 90% of people with severe asthma are eligible for biologics, but only 440,000 patients are currently treated with biologics, suggesting more than 80% of eligible patients are not being optimally treated. U.S. sales in 2023 of biologics for the treatment of severe asthma is estimated to be approximately \$6.0 billion.

These statistics show there is a large population of people living with uncontrolled symptoms of severe asthma. Key areas of unmet need for people living with severe asthma include improved control of exacerbations and symptoms and reduced treatment burden (e.g., need for frequent injections).

Chronic rhinosinusitis with nasal polyps (CRSwNP)

CRSwNP is an inflammatory disease of the upper airway, marked by chronic sinonasal inflammation and the presence of inflammatory polyps in the nasal passages and paranasal sinuses. It is estimated by Sanofi that approximately 900,000 patients in the United States and Europe suffer from CRSwNP. Nasal polyps are associated with significant morbidity and debilitating symptoms; it is estimated that 40% to 45% of people with severe asthma also have CRSwNP and that up to 65% of people with CRSwNP also have asthma, demonstrating a strong association between the two conditions.

The current treatment options for patients with CRSwNP are corticosteroids, surgery and, more recently, biologics. Although a treatment option, surgery does not guarantee symptom relief. Even with surgery, many people with CRSwNP remain symptomatic, with the recurrence rate of CRSwNP ranging from 20% to 60% within 18 months to four years and increasing to 79% after 12 years. Recurrence is particularly common for people with severe disease, including those also living with asthma or who have undergone prior surgeries. The recent FDA approvals of biologic treatments for CRSwNP have established a well-understood regulatory pathway and route to commercialization. It is estimated that approximately 200,000 adult patients in the United States, major European markets and Japan with CRSwNP are eligible for biologics.

Despite these available treatments, the quality of life (“QoL”) studies and post-surgical recurrence rates clearly show that many people with CRSwNP have uncontrolled symptoms that are impacting their daily life and current treatments are not meeting their needs.

Chronic obstructive pulmonary disease (COPD)

Similar to asthma, COPD is a chronic inflammatory disease that obstructs airflow from the lungs. Chronic inflammation causes structural changes within the lungs, narrowing already small airways and damaging lung parenchyma which causes air sacs to lose functionality and decreases lung elasticity. It is typically caused by

long-term exposure to irritants, most often cigarette smoke. People with a history of asthma are also more likely to have COPD. Historically, COPD has been considered to have elements of both type 2 and non-type 2 immune responses.

COPD is the third leading cause of death worldwide, causing approximately 3.2 million deaths in 2019. Almost 14.2 million Americans, or 6.5% of the adult population, reported in one study that they have been diagnosed with COPD, yet the actual number is likely higher given that more than half of adults with low pulmonary function in another study reported that they were not aware that they had COPD.

Treatments for COPD are similar to those for asthma and CRSwNP, including inhaled steroids to reduce inflammation in the airways as well as bronchodilator inhalers to relax airways and improve airflow. Oxygen and surgery may also be used for people with severe COPD. There are currently no biologics approved for the treatment of COPD, although dupilumab is currently under review by the FDA with an expected decision in September 2024.

Despite available treatments, 60% of all COPD patients report some limitations in their daily activity, with 45% being unable to work and 75% complaining of difficulty climbing stairs. Given the high levels of morbidity and mortality associated with COPD, the currently available medicines are not sufficient to control symptoms or disease progression.

Verekitug: Inhibiting TSLP signaling in severe asthma, CRSwNP and COPD

Verekitug is a novel recombinant fully human immunoglobulin G1 (“IgG1”) monoclonal antibody that binds to the TSLP receptor and inhibits its signaling. In 2021, we acquired verekitug from Astellas Pharma Inc. (“Astellas”). Astellas discovered the compound and completed preclinical studies and a Phase 1 single ascending dose (“SAD”) trial, providing the early foundational work for our Phase 1b MAD trial. In those preclinical studies, verekitug potently inhibited TSLP signaling. Additionally, verekitug inhibited cytokine production from CD4+ T cells, suggesting that it may be effective against type 2 and non-type 2 inflammation. In the Phase 1 SAD trial in healthy volunteers, verekitug demonstrated a favorable safety profile with no serious treatment-emergent adverse events, dose proportional pharmacokinetics and a pharmacodynamic effect consistent with TSLP antagonism.

We have conducted two additional clinical trials of verekitug: a Phase 1b MAD trial in patients with asthma and a Japanese ethnobridging study in healthy volunteers. Across the three clinical trials, we have data from 120 total participants, including 32 patients with asthma. In these trials, verekitug was well tolerated, had no clinically meaningful immunogenicity, showed a predictable and consistent PK profile and high subcutaneous bioavailability.

Our Phase 1b MAD clinical trial established clinical proof-of-concept for verekitug in asthma. In the trial, verekitug demonstrated rapid, substantial and sustained target engagement and maintained maximal inhibition of disease-related biomarkers in patients with asthma for up to 24 weeks after the last study dose. Results of the Phase 1b study also demonstrated that verekitug is a potent inhibitor of the TSLP receptor and has the potential for an extending dosing interval compared to currently available and in-development treatments. Importantly, the PK/pharmacodynamic (“PD”) modeling that was done based on the preclinical data aligned very closely with these early clinical results, strengthening our understanding of verekitug’s attributes and behavior in humans.

We are currently conducting two separate multi-national, placebo-controlled, randomized Phase 2 clinical trials to investigate the efficacy of two extended dosing intervals of 12 and 24 weeks for patients with severe asthma and 12 weeks for patients with CRSwNP. These trials have been designed to serve as pivotal trials for potential future regulatory submissions. Data from these trials are expected in for severe asthma and

for CRSwNP. We also plan to initiate development in COPD. Beyond these indications, we believe verekitug has broad potential and we intend to leverage its unique attributes to develop it as a potential therapy for other TSLP-driven diseases.

Our team and investors

We have built a team with deep experience and a strong track record of execution that has allowed us to move from company inception to Phase 2 in less than three years. Our leadership team and board of directors have significant experience developing and commercializing innovative medicines, with deep expertise in severe asthma and other respiratory diseases. E. Rand Sutherland, M.D., our Chief Executive Officer (“CEO”), has more than 25 years of business and clinical experience, having most recently served as CEO of Seeker Biologics Inc., before that as President of Translate Bio, Inc. prior to its \$3.2 billion acquisition by Sanofi, and before that in research and development and business unit roles at Sanofi developing and launching innovative medicines in immunology and rare diseases, including dupilumab. Before joining the biopharma industry, Dr. Sutherland was a Professor of Medicine at the University of Colorado and Chief of Pulmonary and Critical Care Medicine at National Jewish Health in Denver. Our Chief Medical Officer and Head of Research and Development, Aaron Deykin, M.D., leads the company’s clinical development activities and strategy. Prior to Upstream, Dr. Deykin was Senior Vice President of Clinical Sciences at Biogen, Inc. (“Biogen”) overseeing biostatistics, statistical programming, biomarkers, clinical pharmacology, epidemiology and clinical operations for Biogen’s pipeline globally. Dr. Deykin was previously Assistant Professor of Medicine at Harvard Medical School and a member of the Pulmonary and Critical Care faculty at Brigham and Women’s Hospital, where he treated patients with asthma and other advanced respiratory diseases. Michael Gray, M.B.A., our Chief Financial and Operating Officer, brings over 20 years of public and private leadership experience, including broad strategic, financial and operating experience in global life science companies. Mr. Gray previously held the same roles at Carmot Therapeutics, Inc. prior to its \$2.7 billion acquisition by Roche Group. Our board of directors consists of highly experienced biotechnology executives and investors, including Ron Renaud, CEO of Cerevel Therapeutics Holdings, Inc., and Marcella Ruddy, M.D. of Tectonic Therapeutic, Inc. and formerly Regeneron, as our independent directors. We have also assembled a team of well-known and respected advisors and investigators to provide perspective on our data and participate in our clinical program. Since our inception, we have raised approximately \$400 million from premier biotechnology investors.

Our strategy

Our mission is to develop verekitug as a first-in-class antagonist of the TSLP receptor to benefit patients suffering from severe inflammatory diseases that are underserved by today’s standard of care. The key components of our strategy to achieve this mission are:

- **Leverage verekitug’s unique mechanism of action to improve the treatment options for millions of patients living with severe inflammatory diseases.** Preclinical and early clinical data demonstrate that verekitug is a highly potent inhibitor of the TSLP receptor. Verekitug is, to our knowledge, the only monoclonal antibody currently in clinical development that targets the TSLP receptor. We believe these characteristics will translate into a differentiated profile, including improved clinical outcomes, substantially extended dosing intervals, and the potential to treat for a broad spectrum of TSLP-driven inflammatory diseases. For example, our data support evaluating two extended dosing intervals of 12 and 24 weeks as compared to the current standard of care, including tezepelumab (four week dosing interval) and dupilumab (two week dosing interval).
- **Advance our ongoing Phase 2 clinical trials for verekitug in severe asthma and CRSwNP.** We are currently conducting two separate multi-national, placebo-controlled, randomized Phase 2 clinical trials for verekitug in severe asthma and CRSwNP. We have designed our trials to leverage established biomarkers, clinical trial

paradigms and validated regulatory pathways to rapidly generate data to further establish the unique therapeutic profile of verekitug. In addition, these trials have been designed to serve as potentially pivotal trials for future regulatory submissions. Data from these trials are expected in [redacted] for severe asthma and [redacted] for CRSwNP.

- **Expand the impact of verekitug through initiation of an additional development program in COPD.** Dupilumab is currently under review by the FDA for a potential additional approval as an add-on maintenance treatment in certain adults with uncontrolled COPD. Based on this and recent Phase 2a proof-of-concept data from tezepelumab validating the role of TSLP in COPD, we plan to initiate development in COPD. Similar to severe asthma and CRSwNP, we are designing a robust clinical development plan that will allow us to extend verekitug's unique attributes and impact into COPD.
- **Maximize the potential of verekitug by identifying additional TSLP-driven diseases with high unmet needs that could be addressed by our product candidate.** The TSLP signaling pathway is well understood to be either a risk factor for or a key driver of inflammatory diseases across multiple therapeutic areas, including respiratory, dermatology, gastroenterology, nephrology and allergy/immunology. Thus, we believe there is a significant opportunity to expand the impact of verekitug beyond our initial indications of focus in respiratory disease.

Overview of TSLP

TSLP is a member of a class of epithelial cytokines, also including IL-25 and IL-33, commonly referred to as alarmins. In response to various environmental triggers, including viruses, bacteria, allergens, chemical irritants and physical injury, TSLP is produced by the epithelium and can initiate and amplify a wide range of innate and adaptive immune responses including supporting epithelial barrier function, dendritic cell activation, type 2 innate lymphoid cell activation and survival, immune cell recruitment, induction of type 2 responses and regulation of B cell function. Beyond type 2 inflammation, data also support a role for TSLP in propagating non-type 2 inflammatory processes including IL-17 production, modulation of airway structural cells and the promotion of fibrosis. As such, TSLP signaling is a central instigator of multiple downstream biologic pathways relevant to human diseases that are characterized by epithelial inflammation, including asthma, CRSwNP and potentially COPD.

TSLP is primarily produced by epithelial cells, especially in the lung, gastrointestinal tract and skin. Dendritic cells, basophils, mast cells, keratinocytes and fibroblasts also produce TSLP with appropriate stimulation. Relevant stimuli include mechanical injury, pro-inflammatory cytokines, allergen proteases and viral infections, among others. The breadth of TSLP effects suggests it is involved in tissue homeostasis and host defense and acts as an early alarm signal for the immune system. TSLP plays a critical role in many diseases, including asthma, allergic diseases and chronic inflammatory diseases.

In addition to type 2 mediators, TSLP has been shown to drive T helper ("Th") 17 cell polarization of naive CD4 helper cells. As severe asthma phenotypes have been associated with increased Th17 cells and neutrophilic inflammation, in addition to eosinophilic inflammation, interruption of TSLP signaling has the potential to provide benefit to patients whose disease is driven by both type 2 and non-type 2 inflammatory processes. Tezepelumab, an approved antibody against TSLP without restriction to patients with only type 2 inflammation, has been shown to have clinical benefits in patients with severe asthma who do not have elevated type 2 biomarkers as with all other approved therapies.

Beyond its role in inflammation, TSLP also acts on airway structural cells. Airway smooth muscle cells express TSLP receptor and when stimulated by TSLP, they increase production of IL-6 and IL-8. Bronchial fibroblasts also produce TSLP and express TSLP receptor. With TSLP receptor signaling, the bronchial fibroblasts produce

collagen, a smooth muscle actin, arginase 1 and transforming growth factor b1. Taken together, this indicates that TSLP plays a pivotal role in promoting structural changes in asthmatic airways. A summary of the TSLP signaling pathway is illustrated in Figure 1 below.

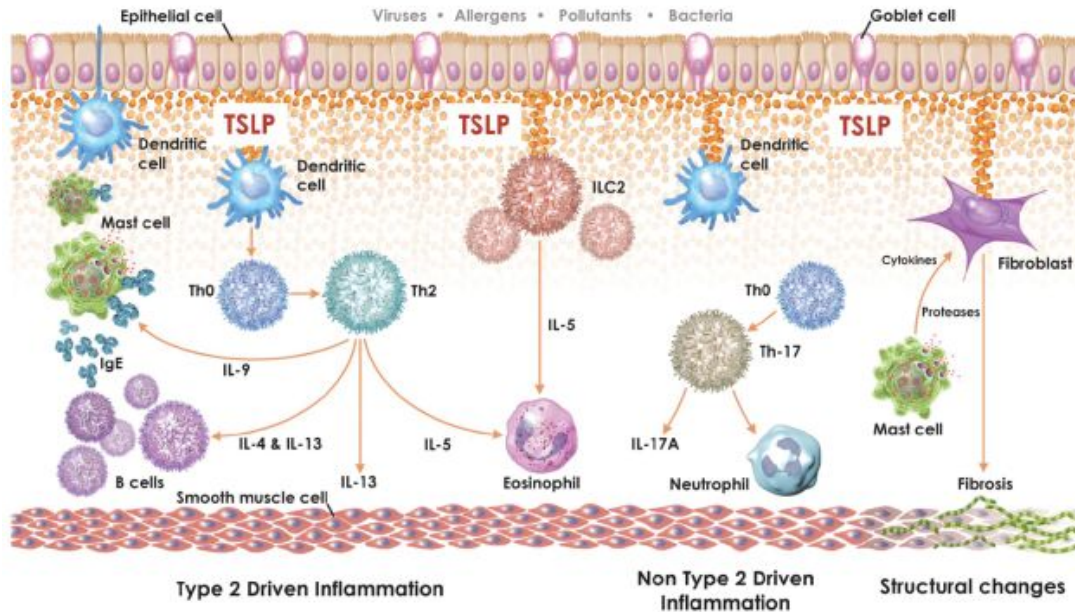


Figure 1: TSLP signaling pathway

TSLP initiates intracellular signaling through the binding of its TSLP receptor and the recruitment of the IL-7 receptor alpha-chain (“IL-7Ra”). TSLP receptor is expressed on many different cell types, including dendritic cells, T and B cells, natural killer T cells, eosinophils, basophils and epithelial cells. Once activated, the TSLP receptor complex then activates a signaling cascade that results in the production of type 2 pro-inflammatory cytokines, including IL-5, IL-9, IL-4 and IL-13. IL-5 is a key cytokine in eosinophilic inflammation. IL-9 is important in allergic inflammation, while IL-4 and IL-13 are both critical to type 2 inflammation.

The role of TSLP in severe asthma, CRSwNP, COPD and related inflammatory diseases

Airway biopsies of people with asthma have shown overexpression of TSLP and type 2 cytokines, particularly in those with severe disease. Type 2 cytokines have enhanced release in the presence of TSLP and therefore are an additional indicator of TSLP expression. Blocking TSLP is expected to reduce type 2 cytokine production by Th2 memory cells, innate lymphoid type 2 cells and mast cells, all of which are involved in inflammation. Additionally, several single nucleotide polymorphisms at the TSLP genomic locus were associated with increased asthma susceptibility or protection.

TSLP may also play a role in the efficacy of corticosteroid treatments for people with asthma. In an animal model, the absence of TSLP signaling results in a significant increase in the anti-inflammatory effects of corticosteroids. These results appear to be relevant for people with asthma as well given that TSLP concentration in the bronchoalveolar lavage (“BAL”) fluid from people with severe asthma were inversely correlated with corticosteroid-mediated inhibition of IL-5 production.

The therapeutic potential of inhibiting TSLP in people with asthma is supported by significant clinical data, including a Phase 3 trial of tezepelumab in adults and adolescents with severe, uncontrolled asthma.

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Tezepelumab is a fully human monoclonal antibody that binds to the TSLP ligand and prevents its interaction with the TSLP receptor. The study met its primary endpoint of reduction in rate of asthma exacerbations, including for those participants with low blood eos at baseline. The study also met several secondary endpoints showing improvements across multiple measures of disease, including lung function, asthma control and health-related quality of life.

TSLP has been implicated in many diseases beyond asthma as well, as shown in Figure 2 below. While the cause of CRSwNP is not fully understood, the role played by the immune system in the condition has been well studied. CRSwNP is predominantly a type 2 inflammatory response with elevated levels of TSLP. Lung epithelium and submucosa samples from people with COPD also contained a greater number of TSLP mRNA-positive cells and BAL samples from these patients had higher concentration of TSLP compared to healthy samples. TSLP has also been indicated as a driver of atopic dermatitis (“AD”), a chronic inflammatory disease of the skin. TSLP was found to be highly expressed in acute and chronic AD lesions but was undetectable in nonlesional skin. Figure 2 below shows many of the diseases in which TSLP has been implicated, including the three indications we are targeting, severe asthma, CRSwNP and COPD.

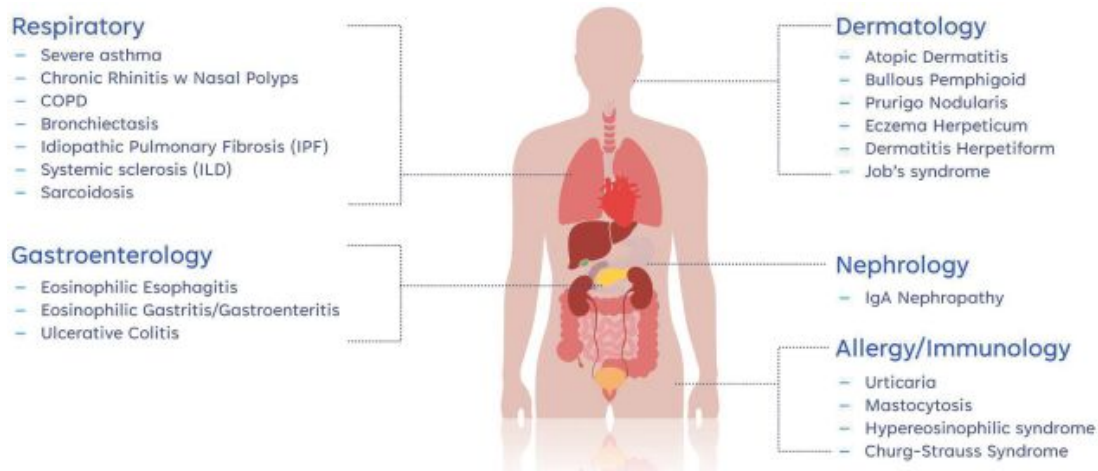


Figure 2: Selected diseases in which TSLP has been shown to play a role

Overview of severe asthma

Disease overview

Asthma is a common disease of the lungs characterized by chronic airway inflammation that is often underdiagnosed and under-treated. With the narrowing of the bronchioles, people with asthma can experience edema or swelling due to fluid accumulation, hyperresponsiveness of the airway resulting in muscle contraction and excess mucus production. People living with asthma experience respiratory symptoms, such as wheeze, shortness of breath, chest tightness and cough, that vary over time and in intensity and also experience airflow limitations mostly with expiration. Asthma attacks can be triggered by infections or environmental irritants.

Approximately 350 million people live with asthma around the world, including more than 25 million Americans. For some people, asthma can simply be a nuisance, for others it can interfere with daily life and potentially even be life-threatening. Of the more than 25 million Americans living with asthma, it is estimated that 5% to 10% suffer from severe asthma.

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Severe asthma is defined as someone diagnosed with asthma who requires high-dose inhaled corticosteroids in order to control symptoms. Asthma is also considered severe when it is uncontrolled despite proper use of these medications. Individuals who suffer from severe uncontrolled asthma may experience symptoms throughout most days and every night. Their symptoms are also more intense and last for longer periods than with regular asthma. Severe asthma attacks can result in confusion or agitation, being unable to speak in full sentences, a bluish tint to the lips, face or fingernails, rapid breathing and having symptoms that don't improve after using a rescue inhaler. These attacks can last from hours to days, compared to mild asthma attacks which typically last only a few minutes. In rare instances, severe asthma attacks can result in death.

There are two main categories of severe asthma, type-2 inflammation and non-type-2 inflammation. Both types of asthma are assessed using eos and FeNO as common biomarkers. Type 2 inflammation refers to a specific type of immune response pattern where Th cells release cytokines such as IL-4, IL-5, IL-9 and IL-13 and also promote the formation of anti-immunoglobulin E ("IgE") antibodies. Additionally, certain immune cells, specifically mast cells, basophils and eosinophils, become activated. Collectively, these cells help to secrete mucus, promote swelling and contract smooth muscle cells, all of which are symptoms of asthma. A high eosinophil blood count is characteristic of type 2 inflammation and an important measure as eosinophils play a vital role in sustaining and enhancing chronic inflammatory asthmatic response. Elevated FeNO levels act as another important measure, as IL-13, mainly secreted by eosinophils, activates the expression of inducible nitric oxide synthase and increases the production of nitric oxide. It is estimated that 55% to 70% of people with severe asthma have type 2 inflammation as a major contributing cause. Understanding of the type 2 inflammation pathway has allowed for the development of targeted therapies for the treatment.

Non-type 2 inflammation asthma is assessed by a lower blood eosinophil count and lower exhaled nitric oxide. It is characterized by Th1 and/or Th17-cell mediated inflammation rather than the Th2-cell mediated inflammation seen in type 2 inflammation. People with non-type 2 asthma typically have poor steroid response and have historically not been candidates for biologic treatments. Recently tezepelumab was approved by the FDA for people with severe asthma irrespective of their blood eosinophil count given the results of the Phase 3 trial showed improvement in asthma symptoms for both type 2 and non-type 2 patient populations.

Overview of current asthma treatments

Asthma cannot be cured, but for many people it can be controlled. The long-term goals of asthma management from a clinical perspective are to achieve good control of symptoms to allow for normal daily activities and to minimize the risk of asthma-related deaths, exacerbations, persistent airflow limitations and side effects.

The standard of care for asthma includes three main categories of treatment:

- Controller medications, which contain inhaled corticosteroids ("ICS"), are used to reduce airway inflammation, control symptoms and reduce future risks of exacerbations and related decline in lung function. Patients with mild asthma can typically control symptoms as they occur with low-dose ICS. Patients with severe asthma require high doses of ICS and may not be able to control their symptoms even with proper use of inhaler. Importantly, people with non-type 2 inflammation asthma are not responsive to steroid treatment.
- Reliever medications are provided to all patients for as-needed relief of breakthrough symptoms. These treatments could be ICS-formoterol, ICS-long-acting beta-agonist ("LABA") or as-needed short-acting beta2 agonist ("SABA"). Over-use of SABA can lead to an increased risk of asthma exacerbations and therefore reducing the need for reliever medications is an important goal in asthma treatment.
- Biologic therapies for patients with severe asthma whose persistent symptoms and exacerbations are not controlled with high dose controller medications. Add on therapies include biologics such as IgE, anti-IL-4,

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anti-IL5, anti-IL-13 and anti-TSLP; bronchodilators, such as long-acting muscarinic antagonists (“LAMA”); antibiotics, such as azithromycin; bronchial thermoplasty; and low dose oral corticosteroids. Similar to ICS, people with non-type 2 inflammation asthma do not respond well to most biologic therapies, with the exception of the only currently approved TSLP signaling inhibitor, tezepelumab.

Biologic therapies for severe asthma

In the past few years, several new biologics have been approved by the FDA for the treatment of severe asthma. Most of these therapies work by targeting specific cells or proteins in the body involved in the type 2 inflammatory response triggered with asthma, including eosinophils, IgE and several ILs or their receptors. In clinical trials, biologics have shown to reduce airway hyperactivity and the number of asthma attacks. They may allow for the reduction or even discontinuation of long-term oral steroid use.

Biologics are administered either subcutaneously or intravenously on a bi-weekly, monthly, or bi-monthly basis, depending on the specific product. Table 1 below identifies FDA-approved biologic treatments for asthma and each product’s mechanism of action, specific asthma indication and dosing interval. Despite the efficacy shown in clinical trials, it is estimated that less than 20% of people with severe asthma receive biologic treatment.

FDA approved biologic treatments	Mechanism of action	Type of asthma	Dosing interval
Omalizumab / Xolair	Anti-IgE	Moderate to severe persistent allergic asthma	2 or 4 weeks
Dupilumab / Dupixent	Blocks IL-4 and IL-13	Moderate to severe eosinophilic asthma	2 weeks
Mepolizumab / NUCALA	Blocks IL-5	Severe eosinophilic asthma	4 weeks
Reslizumab / Cinqair			4 weeks (IV)
Benralizumab / Fasenra			8 weeks
Tezepelumab / Tezspire	Blocks TSLP	Severe asthma (without restriction to type 2 patients only)	4 weeks

Table 1: Overview of FDA approved biologic treatments for asthma

Tezepelumab is a human monoclonal antibody that binds to the TSLP ligand and prevents its interaction with the TSLP receptor. While tezepelumab has a different mechanism of action compared to verekitug, which inhibits the TSLP receptor itself, both antibodies work at the same point in the TSLP signaling pathway which is upstream of other competitor biologics currently approved for the treatment of asthma, CRSwNP and COPD. We believe the biologic validation for efficacy in patients with severe asthma without elevated type 2 markers as well as the clinical and regulatory progress of tezepelumab represent a significant derisking for our own development program.

In 2021, the results of a Phase 3 trial of tezepelumab in participants with severe, uncontrolled asthma were published in the *New England Journal of Medicine*. Participants were dosed every four weeks (“Q4W”) with tezepelumab or placebo. The trial met its primary endpoint of reduction in annualized asthma exacerbation rate (“AAER”) with a 56% reduction in AAER over 52 weeks compared to placebo. Tezepelumab also achieved a statistically significant reduction in AAER in participants with low baseline eosinophil counts. In addition, the study included biomarker endpoints that have been found to be clinically relevant in asthma: change from baseline in eosinophil count and change in baseline in FeNO. Both endpoints showed a significant improvement

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in the biomarkers with a decrease of 150 cells/ μ l from baseline for the eosinophil count and a decrease of 17 parts per billion (“ppb”) for baseline for FeNO.

Dupilumab (Q2W), mepolizumab (Q4W), reslizumab (Q4W) and benralizumab (Q8W) are biologics that target cytokines acting downstream of the TSLP receptor. These treatments, which produce a 48% to 81% reduction in asthma exacerbation rates, have all been approved by the FDA for the treatment of asthma, but all have labels that are restricted to people with high eosinophilic levels, thereby limiting their use in a substantial portion of severe asthma patients. We believe this is due to their downstream mechanism which is restricted to the type 2 inflammation pathway.

The clinical program for tezepelumab and other biologics have established clinical endpoints that were found to be acceptable for approval by the FDA, creating a derisked development path for subsequent programs.

Unmet need for people living with severe asthma

While there are many approved asthma treatments, there remains a significant unmet need for people living with severe asthma. Despite the use of high dose medicines, avoiding triggers and following treatment plans, many people with severe asthma continue to have uncontrolled symptoms.

Severe asthma may impact normal daily activities, resulting in missing work or school and can directly impact a person’s quality of life. People with severe asthma often demonstrate significant reduction of their lung function when tested by spirometry or a pulmonary function test. Despite the fact that severe asthma accounts for a small percentage of people with asthma, half of all asthma-related healthcare costs are attributed to their treatment. In the United States, asthma is responsible for \$80 billion in annual costs due to care, absenteeism and mortality. Asthma also results in over 1.0 million emergency department visits each year and over 3,500 deaths per year in the United States alone.

People living with uncontrolled symptoms despite compliance with their treatment plan are in need of options with greater efficacy than those that are currently available. This has the potential to not only better control symptoms and improve quality of life but to also reduce the burden on our healthcare system.

Even though increased medicine adherence leads to better symptoms control and health outcomes, complying with a treatment plan can be challenging for severe asthma patients. A recent study looked at compliance with biologic treatments using proportion days covered (“PDC”) as a surrogate measure for adherence. The study authors set 0.75 as the mark of good adherence. In the first six months of being prescribed a biologic treatment for asthma, only 61% of people achieved a PDC of ≥ 0.75 .

Our internal market research shows that the dosing intervals for currently available biologics do not match the desired dosing interval of the majority of patients. In fact, the current dosing of every 2, 4, or 8 weeks only satisfies approximately one-third of patients according to physician-reported “ideal” dosing interval. Our research shows that approximately 90% of asthma treaters would be highly willing to use verekitug across both Q12W and Q24W dosing intervals and approximately 90% of patients would consider switching to verekitug for its less-frequent dosing interval. 85% of physicians believe that the TSLP mechanism of action has high clinical utility and that verekitug’s less-frequent dosing is considered more attractive than all other biologic therapeutics brands.

We believe that by reducing the frequency of dosing we can increase patient compliance with biologic treatments for severe asthma. Additionally, a less frequent dose interval may appeal to patients that are not satisfied with their current treatment plan or are unwilling to take current biologics due to the treatment burden that comes with frequent dosing.

There is also a subpopulation of patients that live with uncontrolled symptoms due to the limitation of currently available treatments. These patients often have an absence of biomarkers associated with type 2 inflammation and, perhaps unsurprisingly, do not respond to treatments that target molecules downstream in the type 2 inflammation pathway. These patients are in need of a highly effective treatment which has a broad impact on the inflammation pathway.

Market opportunity for severe asthma

Asthma is a large and growing market as new treatments become available and diagnoses continue to increase. In 2018, 13% of Americans had been diagnosed with asthma at one point in their lives, which is a 43% increase in total asthma diagnoses compared to 9.1% of Americans in 1999.

The major asthma markets, including the United States, France, Spain, Germany, Italy, the United Kingdom and Japan, have estimated annual sales of approximately \$7.5 billion for 2023 with a compound annual growth rate (“CAGR”) of approximately 5.9% through 2032. The United States alone is estimated to have approximately \$6.0 billion in asthma market sales for 2023.

Of the more than 50 million people diagnosed with asthma in these major markets, it is estimated that only 440,000 patients are treated with biologics currently, or less than 20% of eligible patients. This creates a significant opportunity for a biologic that meets patients’ needs in terms of efficacy and the reduced burden of a longer dosing interval. We believe the longer dosing interval will increase adherence and potentially provide a treatment option for asthma sufferers who were unwilling to take treatments with more frequent dosing. Additionally, because severe asthma is typically treated by specialty care providers rather than primary care physicians, we believe that commercialization can be successfully executed with a focused strategy and sale force.

In the past several years, six biologic treatments for asthma have been approved by the FDA and five of these have achieved or are projected to achieve greater than \$1.0 billion in annual sales by 2025, underscoring the need for new treatments and the large size of the market. Tezepelumab, the most recent of the FDA approvals in asthma, is projected to reach approximately \$2.0 billion to \$3.0 billion in peak global annual sales, and had achieved more than 20% of new to brand share of prescriptions in the United States in its first commercial year.

Taken together, we believe the strength of the biologic market has demonstrated there is room for multiple entrants into the market and the opportunity for rapid acceleration for market share. The opportunity in asthma is shown in Figure 3, which summarizes 2023 estimates of biologics eligible patients and patients treated with biologics. We believe the potency and safety clinical data that we have generated for verekitug to

date, along with the expected extended dosing interval, means we are well positioned to capitalize on this market opportunity.

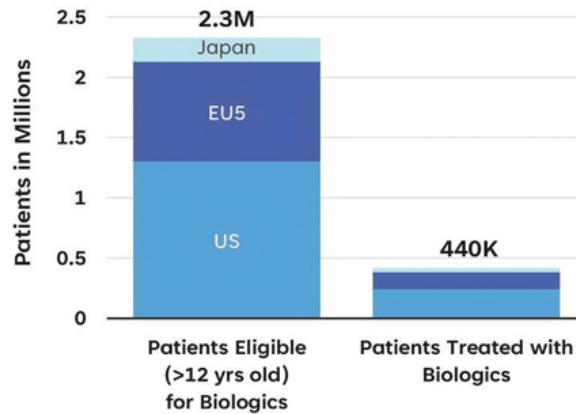


Figure 3: Biologics-eligible vs. currently-treated severe asthma patients

By acting upstream in the signaling pathway, we believe verekitug, similar to tezepelumab, has the potential to treat a broader asthma population than other available biologics. This would address a population that is refractory to existing treatments and in need of new therapies. We believe verekitug has a potency advantage over tezepelumab and will also have an extended dosing interval. Given this, we are confident in the ability of verekitug to gain market share if approved by regulatory agencies.

Overview of CRSwNP

Disease overview

CRSwNP is an inflammatory disease of the upper airway, marked by chronic sinonasal inflammation and the presence of inflammatory polyps in the nasal passages and paranasal sinuses. CRSwNP is associated with significant morbidity and debilitating symptoms, and it is estimated that approximately 900,000 patients in the United States and Europe suffer from this disease.

CRSwNP has four main symptoms: runny nose or postnasal drip, nasal congestion, facial pressure and/or pain and loss of smell and/or taste. Patients may also experience ear pain, sneezing, severe difficulty breathing through the nose and sleep disturbances. These symptoms can have a significant impact on quality of life. It is estimated that 40% to 45% of people with severe asthma also have CRSwNP and that up to 65% of people with CRSwNP also have asthma, demonstrating a strong association between the two conditions and an increase in comorbid asthma severity.

The cause of CRSwNP is not fully understood although the role of the immune system in the condition has been well studied. CRSwNP is predominantly a type 2 inflammatory response with elevated levels of TSLP as well as IL-5, IL-13, eosinophilic granule proteins, eosinophil chemotactic proteins, basophils, innate type 2 lymphoid cells and mast cells. Additional studies have shown that certain populations lack increased eosinophils and have lower levels of IL-5, indicating a non-type 2 inflammatory response as well.

Overview of current CRSwNP treatments

Treatment for CRSwNP often begins with medical management, primarily involving topical corticosteroids and nasal saline irrigations. Intranasal corticosteroids have been shown to decrease nasal polyp size, lessen sinonasal symptoms and improve quality of life. Patients who are unable to manage their symptoms with medical management may undergo sinus surgery; however, polyps and symptoms can recur post-surgery. People with both asthma and CRSwNP are more likely to undergo sinus surgery than those with only CRSwNP.

Recently, biologics targeting the type 2 inflammation pathway have been approved by the FDA as treatments for CRSwNP. Similar to asthma, biologic treatments targeting IgE, IL-5 and IL-4Ra have been approved for CRSwNP. Omalizumab, an anti-IgE monoclonal antibody, was shown to reduce nasal polyp size and improve symptoms compared to placebo in CRSwNP. Mepolizumab, a humanized anti-IL5 antibody, was shown to reduce nasal polyps and improve sense of smell, post-nasal drip and nasal congestion compared to placebo for CRSwNP patients with severe nasal polyposis refractory to corticosteroid therapy. Dupilumab, a human monoclonal antibody that binds IL-4Ra and inhibits IL-4 and IL-13 signaling, reduced nasal polyp burden and improved nasal symptoms when used in conjunction with intranasal steroids in patients with refractory CRSwNP.

These FDA approvals have established a well-understood regulatory pathway and route to commercialization. The primary endpoints of the trials were similar as well, including reduction in nasal polyp score and nasal congestion/obstruction. The trials recruited a significant proportion of patients with comorbid asthma (58% to 71%) and with prior surgery (58% to 100%), highlighting the benefit that biologics can provide to a broad population of people with CRSwNP.

Unmet need for people living with CRSwNP

While there are several treatments available, there remains a significant disease and treatment burden for people living with CRSwNP. QoL studies show that the burden of living with CRSwNP is comparable to other chronic diseases such as COPD, asthma and diabetes. People with CRSwNP even had significantly worse social functioning scores than those with congestive heart failure. One of the most troublesome symptoms in terms of QoL for people with CRSwNP is loss of smell, which correlates with disease severity.

Beyond the burden of the disease, there are significant risks associated with current standard of care treatments for CRSwNP as well. Corticosteroid use, even in the short term, is associated with an increased risk of acute complications such as sepsis, venous thromboembolism and fracture.

People with serious CRSwNP requiring sinus surgery face an additional burden. While endoscopic sinonasal surgery is generally safe, risk exists with any surgical procedure. Minor complications are reported in 5% of routine endoscopic surgeries and major complications are reported in 0.5% to 1%. Even with a successful surgery, the recurrence rate of CRSwNP ranges from 20% to 60% within 18 months to four years and increases to 79% after 12 years. 37% of patients are found to have revision surgery over a 12-year period, and it is not uncommon for patients to have multiple surgeries. Recurrence is particularly common for people with severe disease, including those also living with asthma or who have undergone prior surgeries. Even with surgery, many people with CRSwNP remain symptomatic. One study reported that 23% of patients continued to have persistent symptoms post-surgery.

The recurrence of symptoms and need for multiple surgeries demonstrates that people living with CRSwNP do not have access to treatments that effectively manage their disease. A therapy with strong efficacy that provides better symptom control is a significant need for this patient population.

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Similarly to asthma, our internal market research shows that the less frequent dosing regimen for verekitug would be attractive to both patients and physicians with approximately 75% to 80% of CRSwNP treaters highly willing to use verekitug across Q12W and Q24W dosing intervals, respectively, and approximately 90% of patients would consider switching to verekitug for its less-frequent dosing interval.

Market opportunity for CRSwNP

In the major markets for CRSwNP, which include the United States, the five major European markets (France, Spain, Germany, Italy and the United Kingdom) and Japan, there are an estimated 900,000 people diagnosed with CRSwNP. Sales in these markets are expected to exceed \$4.0 billion by 2030. Dupilumab alone has an annual global sales estimate for the treatment of CRSwNP of up to \$1.5 billion by 2030 according to third-party research analyst reports.

Of the 900,000 people diagnosed with CRSwNP in the United States, major European markets and Japan, it is estimated that approximately 200,000 adults are eligible for biologics.

We believe there is a significant opportunity for additional biologic entrants into this market given the large unmet medical need that remains as many people with CRSwNP continue to live with uncontrolled symptoms despite surgery, as shown in Figure 4, and corticosteroid treatment.

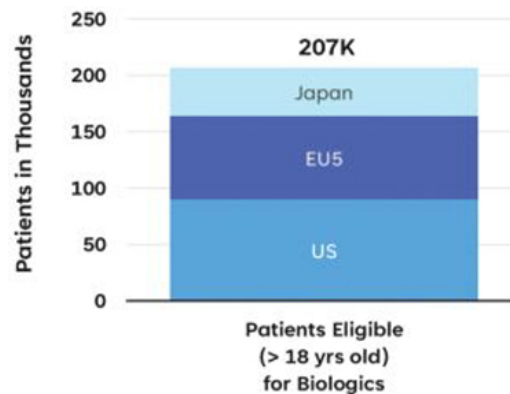


Figure 4: Number of CRSwNP patients eligible for biologics

Overview of COPD

Disease overview

Like asthma, COPD is a chronic inflammatory disease of the airways, associated with airflow worsening and episodic exacerbations that drive morbidity, mortality, and health care utilization. Chronic inflammation causes structural changes within the lungs, narrowing already small airways and damaging lung parenchyma which causes air sacs to lose functionality and decrease lung elasticity. It is typically caused by long-term exposure to irritants, most often cigarette smoke. Air pollution is also a major risk factor, primarily in lower and middle-income countries.

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COPD is the third leading cause of death worldwide, causing approximately 3.2 million deaths in 2019. Almost 14.2 million Americans, or 6.5% of the adult population, reported in one study that they have been diagnosed with COPD, however, the true prevalence is likely higher given that more than half of adults with low pulmonary function in another study reported that they were not aware that they had COPD.

People living with COPD may experience daily cough, difficulty breathing, mucus production, chest tightness, wheezing, lack of energy and frequent respiratory infections. Symptoms often don't appear until significant lung damage has already occurred and will worsen over time. Despite the progressive nature of COPD, good symptom control can be achieved with proper treatment.

With moderate to severe COPD (stages 2 and 3) everyday activities may result in shortness of breath and frequent exacerbations, including increased and discolored phlegm. With very severe, or stage 4, COPD almost any activity results in shortness of breath, which limits mobility and may require supplemental oxygen. People with moderate to very severe COPD are also more likely to acquire lung infections like bronchitis and pneumonia.

Historically, COPD has been considered a disease driven by non-type 2 immune responses. Recently it has been shown that 20% to 40% of COPD patients also exhibit type 2 inflammation. Published research has shown that IL-4 and IL-13, cytokines in the type 2 inflammation pathway, may play a role in COPD pathogenesis. Elevated levels of TSLP have been found in the airways of people with COPD. In bronchial biopsies, TSLP receptor expression was highest in patients with severe COPD compared to healthy controls. Viral infection can also increase TSLP expression in epithelial cells, suggesting the potential role of TSLP in COPD exacerbations.

Overview of current COPD treatments

Currently available treatments for COPD are non-biologic and include inhaled steroids to reduce airway inflammation and bronchodilator inhalers to improve airflow. Oxygen and surgery may also be used for some patients with severe COPD.

Similar to asthma and CRSwNP, biologics are being developed as new and potentially transformative treatments for COPD. The most advanced biologic treatment for COPD is dupilumab, which is already approved for the treatment of asthma and CRSwNP.

In May 2023, Phase 3 clinical trial results in the *New England Journal of Medicine* showed that dupilumab, an anti-IL4Ra antibody, was the first biologic to demonstrate a significant reduction in moderate or severe acute exacerbations of COPD by 30%, when compared to placebo. Additionally, dupilumab also significantly improved lung function at 12 and 52 weeks. Dupilumab is currently under review by the FDA for potential approval as an add-on maintenance treatment in certain adults with uncontrolled COPD. In May 2024, Phase 2a proof-of-concept data for tezepelumab for the treatment of moderate to very severe COPD were presented at the ATS International Conference, supporting advancement into Phase 3 clinical trials. By contrast, previous trials of biologic agents targeting IL-5 or its receptors have shown mixed results. Taken together, these clinical trial data reinforce our plan to develop verekitug for the treatment of COPD.

Unmet need for people living with COPD

COPD is the third leading cause of death worldwide and is also associated with significant morbidity. Population studies have shown among patients hospitalized with COPD, 50% are readmitted in the future and approximately 13% will be hospitalized in a three-year period. In total, 60% of all COPD patients will report

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some limitations in their daily activity, with 45% being unable to work and 75% complaining of difficulty climbing stairs. These increases in hospitalizations and limitations to daily life are reported despite the currently available treatments. The CDC estimates that approximately 2.0 million to 2.5 million Americans live with moderate-to-severe COPD that is not adequately controlled with current therapeutics.

With the emerging data that type 2 inflammation plays a role in COPD, particularly exacerbations, for a portion of patients, there is a need to develop therapies that can address this patient population whose symptoms are inadequately managed with currently available therapies.

Market opportunity for COPD

Millions of people worldwide continue to suffer from COPD despite currently available treatments, underscoring the large need for more effective treatments for this patient population. There are currently no biologic therapies approved for the treatment of COPD. One, dupilumab, is currently under review by the FDA with an expected decision in September 2024 and others are in late-stage clinical development.

If approved, dupilumab is projected to reach peak sales of approximately \$4.0 billion in COPD, while only penetrating 20% of the market since it will likely only be prescribed to patients with an eosinophil count higher than 300, according to third-party research analyst reports. Tezepelumab, which recently shared positive Phase 2a data indicating it may be effective in patients with eosinophil counts at 150 or greater, is projected to have annual peak sales of \$6.0 billion to \$10.0 billion according to third-party research analyst reports, given the broader patient population it may be able to address.

Given the size of the COPD patient population, high rates of morbidity and mortality despite currently available treatments, we believe COPD represents one of the largest unmet needs worldwide.

Verekitug, a first-in-class antagonist of the TSLP receptor

Our product candidate, verekitug, is a novel recombinant fully human IgG1 monoclonal antibody that we are developing as a potential treatment for multiple inflammation-related diseases across a broad spectrum of patients. Verekitug binds to the TSLP receptor and inhibits its signaling, and to our knowledge, it is the only monoclonal antibody that targets and inhibits the TSLP receptor currently in clinical development. TSLP is a cytokine which is a clinically validated driver of inflammatory response positioned upstream of multiple signaling cascades that affect a variety of immune mediated diseases. In preclinical studies, verekitug demonstrated very high occupancy of the TSLP receptor and potent inhibition of TSLP signaling. Additionally, verekitug inhibited cytokine production from CD4+ T cells, suggesting that it may be effective against both type 2 and non-type 2 inflammation. Currently available biologics that target cytokines downstream of TSLP appear to only be effective against type 2 inflammation.

In May 2024, we presented full proof-of-concept data from our randomized, double-blind, placebo-controlled Phase 1b MAD clinical trial in asthma patients demonstrating that dosing with verekitug led to rapid and complete TSLP receptor occupancy, and reductions in disease-related biomarkers, FeNO and blood eos, that were rapid, substantial and sustained for up to 24 weeks after the last dose. This study also demonstrated that verekitug is significantly more potent than tezepelumab, which, combined with verekitug's PK profile, enables an extended dosing interval of up to 24 weeks, compared to tezepelumab (four week dosing interval) and dupilumab (two week dosing interval). Furthermore, clinical data from our MAD trial indicate an approximately 50% greater effect on FeNO than has previously been reported for tezepelumab. Three Phase 1 clinical trials have been completed for verekitug, across a total of 120 participants, including 32 patients with asthma. In the Phase 1 SAD trial in healthy volunteers, verekitug demonstrated a favorable tolerability profile with no serious treatment-emergent adverse events, dose proportional pharmacokinetics and a pharmacodynamic effect consistent with TSLP antagonism.

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Verekitug's preclinical and clinical data suggest:

1. Verekitug is an extremely potent inhibitor of TSLP signaling.
2. Verekitug's potency translates to a significant impact on biomarkers of severe asthma which are correlated with both disease severity and treatment response. Based on these clinical data verekitug's potency is more than 300-fold greater than that reported for tezepelumab.
3. Verekitug's potency enables an extended dosing interval of up to 24 weeks, currently being investigated in our Phase 2 clinical trial in people with severe asthma.

Based on the consistency from preclinical to clinical results as well as the potent inhibition of TSLP signaling, we believe verekitug has the potential to be a best-in-class treatment for severe asthma, CRSwNP, COPD and other inflammatory diseases.

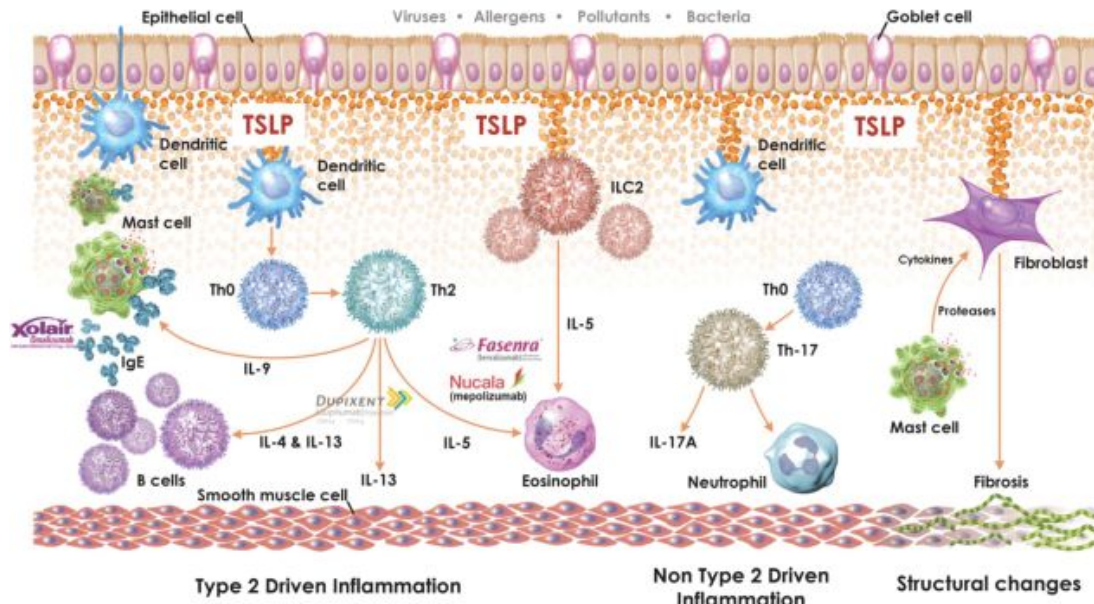


Figure 5: Verekitug neutralizes TSLP, a cytokine upstream of those targeted by existing biologics

Preclinical data

Target engagement and inhibition

In preclinical studies, verekitug was able to efficiently bind and inhibit the TSLP receptor.

Verekitug inhibited the interaction between TSLP and TSLP receptor in a dose-dependent manner with a 50% inhibitory concentration (IC_{50}) of 208 ng/mL and a 90% inhibitory concentration (IC_{90}) of 462 ng/mL. Verekitug also inhibited TSLP-induced proliferation of Ba/F3 cells (IC_{50} = 90.7 ng/mL, IC_{90} = 200 ng/mL). Studies also showed that verekitug inhibited TSLP-induced production of CCL-17 in a human cell line in a dose dependent manner.

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These studies were conducted using tezepelumab as an active comparator. Across multiple experiments, verekitug was found to be at least more than four times more potent based on the IC₅₀ and IC₉₀ values for both the Ba/F3 cell proliferation and CCL17 production assays.

The IC₉₀ values from the *in vitro* assays suggest a target trough concentration of approximately 0.3 µg/mL as an effective dose for verekitug. These results, as shown in Figure 6 below, underscore the potency of verekitug and the potential for sufficient efficacy even at low drug concentrations.

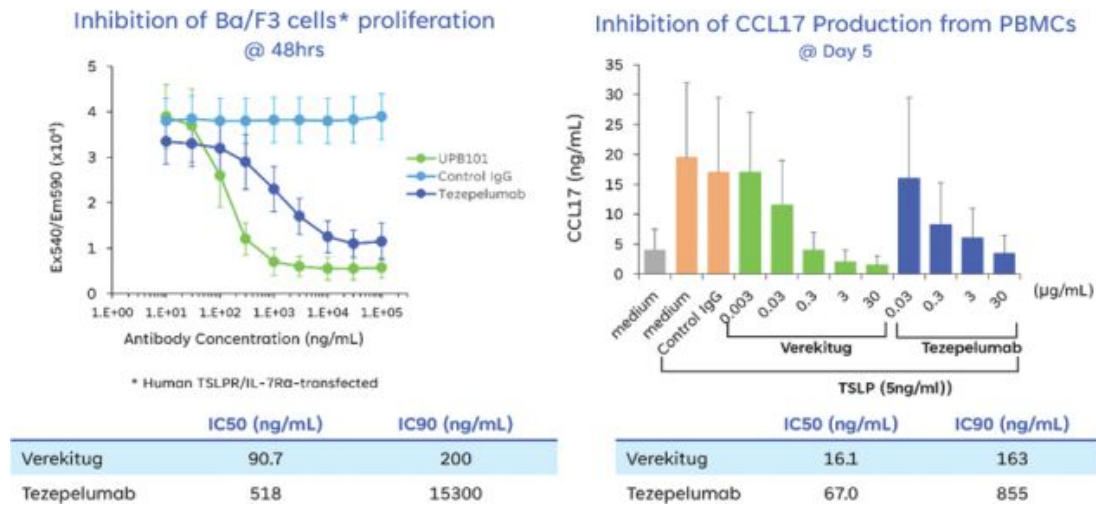


Figure 6: Left panel: In a competitive ELISA study, verekitug was shown to inhibit the interaction between TSLP and TSLP receptor in a dose-dependent manner. Right panel: Ba/F3 cells were co-transfected with human IL-7Ra and TSLP receptor. When treated with verekitug, inhibition of TSLP-induced proliferation was seen.

Toxicology

The safety of verekitug has been evaluated in multiple *in vitro* and *in vivo* studies. In single-dose toxicity studies, doses up to 50 mg/kg were not associated with system toxicity findings and verekitug showed no discernible subcutaneous irritation at the injection site in cynomolgus monkeys. Repeat-dose toxicology studies of 4-, 13- and 26-weeks duration were conducted in cynomolgus monkeys. In the 26-week study, dose levels of 25, 50 and 100 mg/kg once weekly were evaluated with no treatment-related findings seen for: clinical signs, body weight, food consumption, ophthalmology, electrocardiography, urinalysis, hematology, blood chemistry, gross pathology, organ weights or histopathology.

Clinical data

Phase 1 SAD clinical trial design

Verekitug was investigated in a Phase 1 SAD clinical trial conducted by Astellas, which enrolled 56 healthy volunteers aged 18 to 55. The primary objective of the study was safety, tolerability and PK following single intravenous (“IV”) and subcutaneous (“SC”) doses of verekitug. Secondary and exploratory objectives were absolute bioavailability following a single SC dose and PD following single IV and SC doses.

Participants were randomized three to one to verekitug or placebo. In the first six cohorts, verekitug was delivered via IV in ascending doses beginning at 0.03 mg/kg and ending at 10 mg/kg. The final cohort was a 1 mg/kg SC dose. Figure 7 below summarizes the Phase 1 SAD trial design.

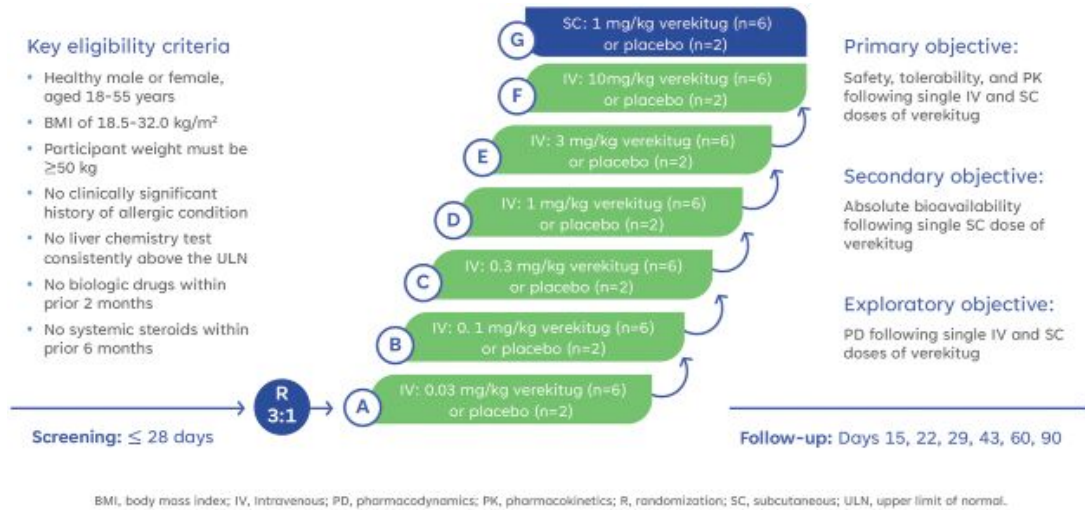


Figure 7: Trial design schematic for Phase 1 SAD trial

Phase 1 SAD clinical trial safety and tolerability data

We presented the results from the Phase 1 SAD clinical trial of verekitug at the ATS International Conference in May 2023. The data showed a favorable tolerability profile at all dose levels in healthy participants.

As summarized in Figure 8 below, treatment-emergent adverse events (“TEAEs”) were reported by 21 of 42 participants receiving verekitug (50%) and 3 of 14 (21%) participants receiving placebo. The majority of TEAEs were mild in severity and less than half of all reported TEAEs were considered to be related to the study drug. There was no clinically relevant increase in the frequency of TEAEs with the increase of dose. No drug related serious TEAEs occurred during the study. One participant experienced a serious TEAE of nephrolithiasis which was deemed not related to the study drug by the investigator. The most frequently reported TEAEs were headache and dysmenorrhea (menstrual cramps).

No clinically relevant trends in clinical laboratory analyses, including hematology, biochemistry and urinalysis, were seen. Additionally, there were no clinically relevant trends in vital signs, physical assessments or electrocardiograms (“ECGs”) detected. No injection site reactions were reported at the SC dose given in the final cohort.

ADAs were detected in 13 participants dosed with verekitug. Titers were low, less than 129, and the presence of ADAs did not significantly impact the serum PK profile in these individuals.

Parameter	verekitug, IV (each n=6)							Total (n=36)	Cohort G Placebo, SC (n=2)	Cohort G verekitug, SC 1 mg/kg (n=6)
	Placebo IV (n=12)	Cohort A 0.03 mg/kg	Cohort B 0.1 mg/kg	Cohort C 0.3 mg/kg	Cohort D 1 mg/kg	Cohort E 3 mg/kg	Cohort F 10 mg/kg			
Any TEAE, n(%); event	3 (25.0); 16	3 (50); 5	4 (66.7); 6	2 (33.3); 2	3 (50.0); 4	3 (50.0); 7	1 (16.7); 1	16 (44.4); 25	0	5 (83.3); 7
Mild event (% of TEAEs)	15 (94.0)	5 (100)	2 (33.0)	1 (50.0)	2 (50.0)	4 (57.0)	1 (100)	15 (60.0)	0	6 (86.0)
Moderate event (% of TEAEs)	1 (6.0)	0	4 (67.0)	1 (50.0)	0	3 (43.0)	0	8 (32.0)	0	1 (14.0)
Severe event (% of TEAEs)	0	0	0	0	2 (50.0)	0	0	2 (8.0)	0	0
Drug-related TEAE ^a , n(%); event	2 (16.7); 7	1 (16.7); 1	3 (50.0); 3	0	0	1 (16.7); 3	0	5 (13.9); 7	0	3 (50.0); 3
Serious TEAE ^c , n (%); event	0	0	0	0	1 (16.7); 1	0	0	1 (2.8); 1	0	0
Nephrolithiasis, n (%); event	0	0	0	0	1 (16.7); 1	0	0	1 (2.8); 1	0	0

^a Defined as any adverse event that started or worsened in severity after dose of study drug through end of study. ^b Possible or probable, as assessed by the investigator or records where relationship was missing. ^c Included serious adverse events upgraded by the sponsor based on review of the sponsor’s list of Always Serious terms, if any upgrade was done. IV, intravenous; SC, subcutaneous; SOC, System Organ Class (per MedDRA v18.1); TEAE, treatment-emergent adverse event.

Figure 8: Incidence of treatment-emergent adverse events by cohort

Phase 1 SAD clinical trial PK data

In the six IV cohorts, there was a linear and dose-proportional increase in maximum serum concentration (“C_{max}”) and total drug exposure over time (area under the curve) over the 0.1-10 mg/kg dose range. The mean terminal half-life was approximately 20 days for the 1, 3 and 10 mg/kg IV dose groups.

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There was evidence of more rapid elimination of verekitug at serum concentrations below approximately 1 µg/mL, which may be attributed to target mediated drug disposition. Target-mediated drug disposition occurs when a drug binds with such high affinity to its pharmacological target site, in this case TSLP receptor, that it affects its PK characteristics. The PK profile of verekitug was linear and dose-proportional at concentrations exceeding the conservatively estimated therapeutic threshold (1.0 µg/mL). Figure 9 below illustrates the PK profiles for the six IV cohorts and one SC cohort in our Phase 1 SAD trial.

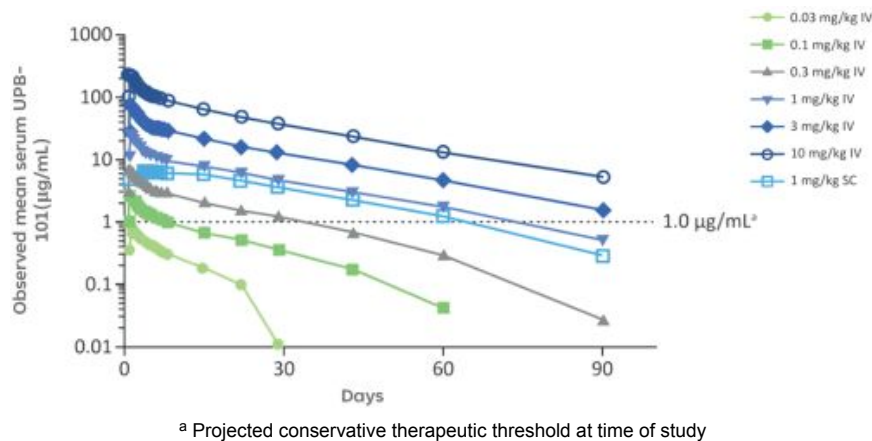


Figure 9: Single dose PK profiles for six IV cohorts and one SC cohort

Data from the SC cohort showed the absolute bioavailability after a dose of 1 mg/kg of verekitug was approximately 70%. A PK model fitted to the single dose SC PK data was used to predict the PK profiles after repeat SC administration at different dose levels and dose intervals, as illustrated in Figure 10 below. The then-anticipated therapeutic threshold concentration (1.0 µg/mL), conservatively estimated as a 1/2 -log escalation from the 0.3 µg/ml concentration derived from *in vitro* pharmacology assays, was predicted to be maintained with a 12-week dosing interval.

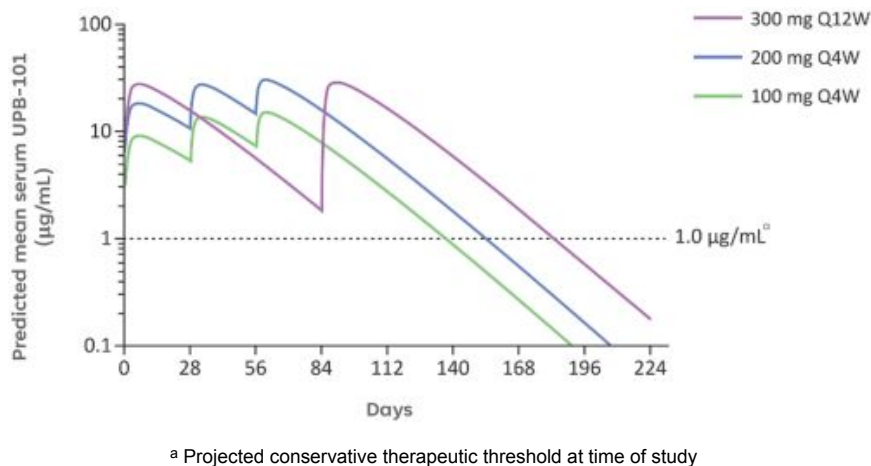


Figure 10: Simulated PK profiles for repeated SC administration based on Phase 1 SAD clinical trial data

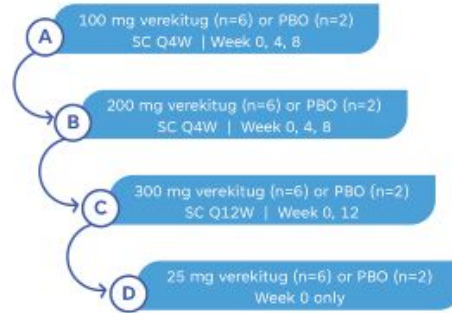
Phase 1b MAD clinical trial design

We conducted a multicenter, randomized, double-blind, placebo-controlled Phase 1b MAD clinical trial of verekitug in asthma patients. The trial enrolled 32 adult participants aged 18 to 60 with mild to moderate asthma across four dosing cohorts. The primary objective of the study was to assess the safety and tolerability of verekitug. Secondary objectives included assessments of TSLP receptor occupancy, immunogenicity and PK, and exploratory objectives included assessments of PD.

Participants were randomized three to one verekitug to placebo. In the first two cohorts, participants were dosed subcutaneously every four weeks (Q4W, three total doses) with 100 mg and 200 mg of verekitug, respectively. Participants in the third cohort were dosed subcutaneously with 300 mg every 12 weeks (Q12W, two total doses). The final cohort was a single low dose of 25 mg subcutaneously. The 32-week trial included an observation period of up to 24 weeks after the last dose in the multi-dose cohorts. Figure 11 below summarizes this trial design.

Key eligibility criteria

- Adults with asthma, aged 18-60 years
- Blood eosinophils ≥ 200 cell/ μ L or ≥ 50 cell/ μ L with FeNO > 25 ppb
- Participants on stable nonbiologic asthma medications with no dose adjustments, who experience no exacerbations, and with no new prescribed drugs within 8 weeks prior to screening



Primary objective:

To assess safety and tolerability of verekitug administered in MAD

Secondary objective:

- To assess PD effect of verekitug on FeNO and blood eosinophils
- To assess the degree and duration of TSLPR occupancy in peripheral monocytes
- To assess immunogenicity and PK of verekitug

PD, pharmacodynamics; PK, pharmacokinetics; SC, subcutaneous; PBO, placebo.

Figure 11: Trial design schematic for Phase 1b MAD trial

Phase 1b MAD safety and tolerability data

Similar to the Phase 1 SAD clinical trial, the data from the Phase 1b MAD clinical trial showed a favorable tolerability profile for verekitug at all dose levels.

As summarized in Figure 12 below, TEAEs were reported by 21 of 42 (50%) participants receiving verekitug and 3 of 14 (21%) patients receiving placebo. TEAEs were mild to moderate in severity with no severe TEAEs reported. Ninety percent of the TEAEs were deemed unrelated to study drug. There were no reported serious TEAEs and there were no withdrawals from the trial or treatment discontinuations due to TEAEs. The most frequently reported TEAE was headache. Several participants had mild, short-lived and self-limited injection site reactions; none were reported as an adverse event.

There were no clinically relevant trends observed in clinical laboratory analyses, including hematology, biochemistry and urinalysis. Additionally, there were no clinically relevant trends in vital signs, physical assessments or ECGs were observed. There was no clinically relevant immunogenicity observed in the trial.

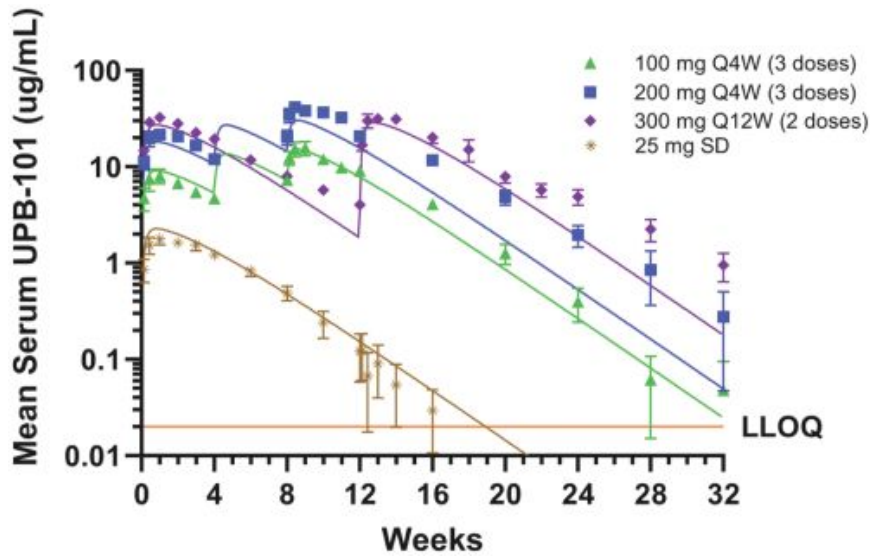
	100 mg Q4W (N=6)	200 mg Q4W (N=6)	300 mg Q12W (N=6)	25 mg X 1 (N=6)	Placebo (N=8)	Overall (N=32)
Number of TEAE	19	17	12	9	25	82
Number of Related TEAE	2	1	3	0	1	7
Subjects with any TEAE, n (%)	5 (83.3)	6 (100)	6 (100)	4 (66.7)	7 (87.5)	28 (87.5)
Mild, n (%)	1 (16.7)	4 (66.7)	5 (88.3)	0	1 (12.5)	5 (15.6)
Moderate, n (%)	4 (66.7)	2 (33.3)	1 (16.7)	4 (66.7)	4 (50.0)	15 (46.9)
Severe, n (%)	0	0	0	0	0	0
Subjects with any Related TEAE, n (%)	1 (16.7)	1 (16.7)	2 (33.3)	0	1 (12.5)	5 (15.6)
Subjects with any Serious TEAE, n	0	0	0	0	0	0
Subjects with any TEAE Leading to Withdrawal, n	0	0	0	0	0	0
Subjects with any TEAE Leading to Discontinuation of IMP, n	0	0	0	0	0	0

Figure 12: Treatment emergent adverse events observed in Phase 1b MAD clinical trial

PK/PD data demonstrated substantial and sustained receptor occupancy and biomarker suppression, supporting dosing intervals of up to Q24W

We observed a desirable pharmacokinetics profile for verekitug that is supportive of extended dosing intervals up to every 24 weeks. In the first three cohorts, there was a dose-dependent increase in verekitug exposure with increasing dose levels across 100 mg Q4W (three total doses), 200 mg dosed Q4W (three total doses) and 300 mg dosed Q12W (two total doses). However, given serum concentrations for the first three cohorts remained above the projected therapeutic threshold, a single dose administration (25 mg) cohort was included to generate data in support of PK/PD.

As shown in Figure 13, observed mean serum concentrations from the Phase 1b MAD study replicated the modeled PK from the Phase 1 SAD clinical trial in healthy volunteers.



Symbols: observed mean values from Phase 1b MAD study; Solid lines: predicted PK from Phase 1 SAD clinical trial in healthy volunteers; LLOQ: lower limit of PK quantification

Figure 13: Post-dose serum concentration of verekitug for each Phase 1b MAD cohort, overlaid with PK model based on Phase 1 SAD trial data

We demonstrated that dosing with verekitug led to rapid and complete TSLP receptor occupancy and reductions in FeNO and eos that were rapid, substantial and sustained for up to 24 weeks after last dose.

The pharmacodynamics of verekitug were assessed over the 32-week observation period by measuring TSLP receptor occupancy in CD14+ monocytes. As summarized in Figure 14 below, the first three cohorts (verekitug

doses ≥ 100 mg) had substantial occupancy through the end of the observation period. The fourth single low dose cohort, added to interrogate the minimal concentration required to maintain full receptor saturation, produced substantial occupancy for 12 to 16 weeks supporting the high potency of verekitug at low doses. All cohorts demonstrated 100% TSLP receptor occupancy by verekitug within two weeks after first dose.

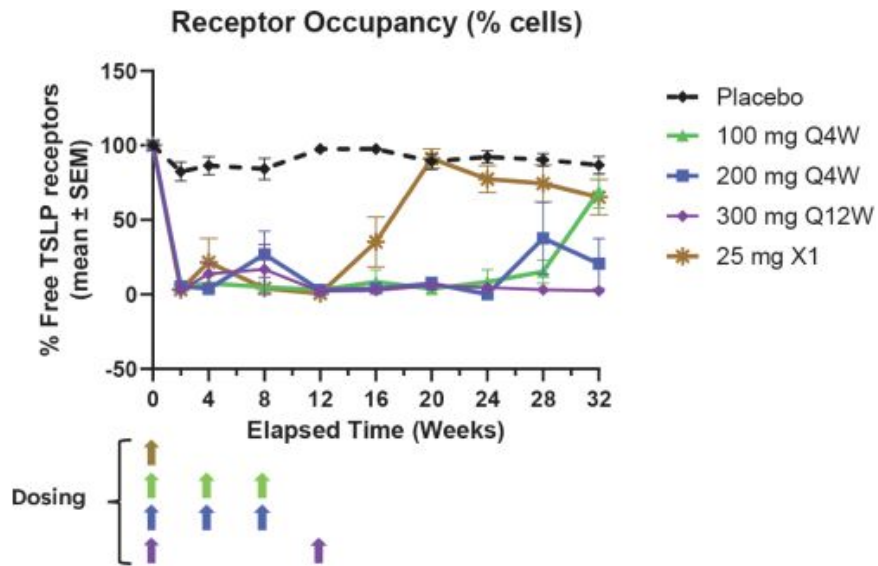


Figure 14: Percent of free TSLP receptors for each Phase 1b MAD cohort compared to placebo over 32 weeks

As shown in Figures 15A and 15B below, reductions in blood eos and FeNO levels were rapid, substantial and sustained. Additionally, these key disease-related biomarkers remained below baseline in all cohorts receiving ≥ 100 mg of verekitug through the 32-week observation period, up to 24 weeks past the last dose. In the single low dose cohort, blood eos and FeNO levels remained below baseline for 18 and 20 weeks of observation, respectively. The loss of the suppression of biomarkers in this cohort, which occurred shortly after the loss of receptor saturation, allowed determination of the minimal concentration required for the efficacy of verekitug.

Blood Eosinophils

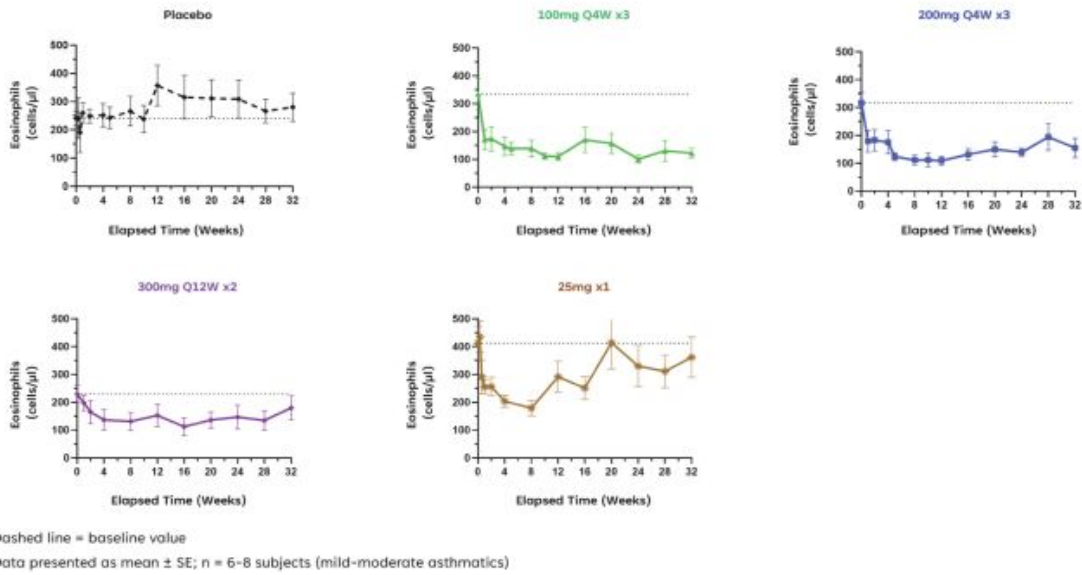


Figure 15A: Levels of blood eosinophils compared to baseline for each cohort in Phase 1b MAD trial over 32 weeks.

FeNO (ppb)

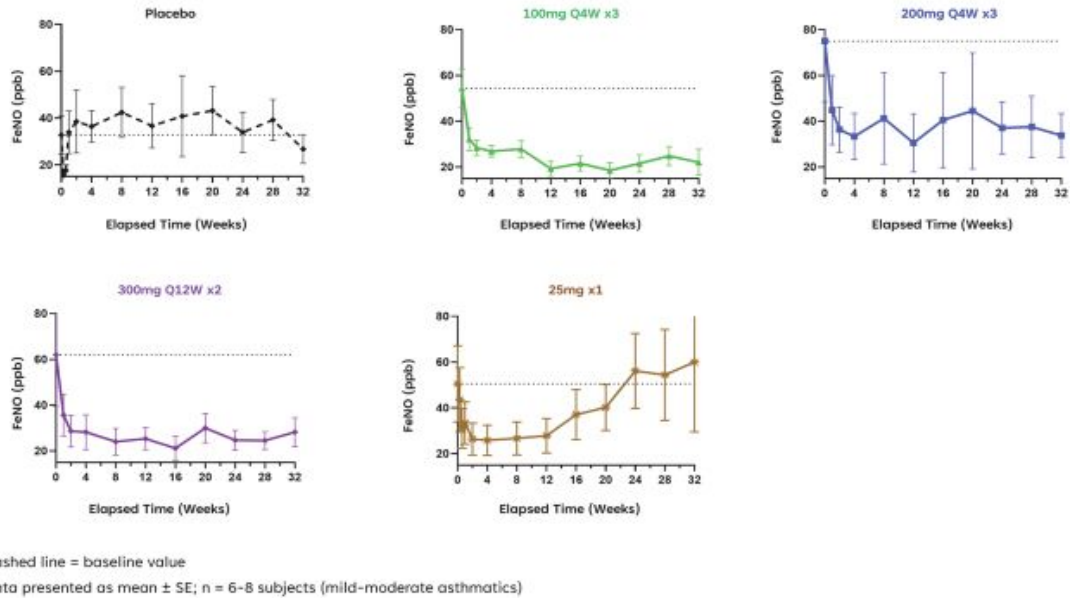
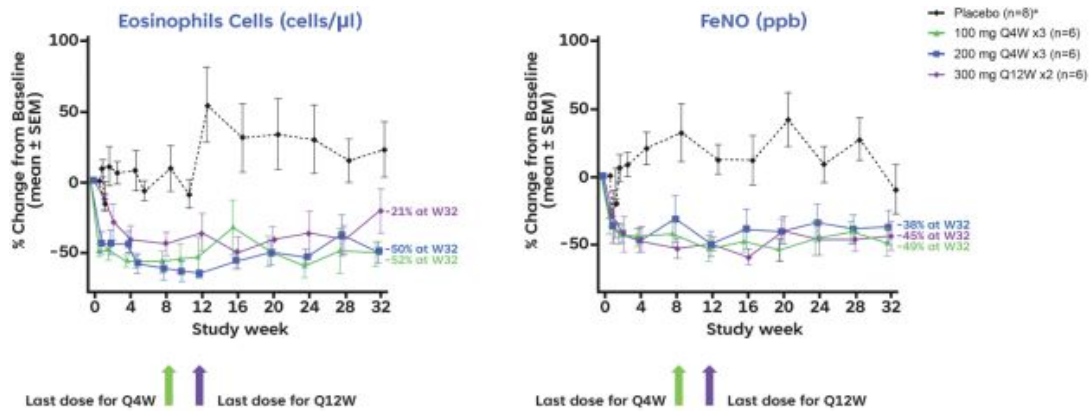


Figure 15B: Levels of fraction of exhaled nitric oxide (right column) compared to baseline for each cohort in the Phase 1b MAD trial over 32 weeks.

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Patients receiving verekitug doses of 100 mg or greater experienced reductions in blood eos of up to 52% and FeNO reductions of up to 49% at 32 weeks. As seen in Figure 16 below, at week 12, the change from baseline in blood eos was -164 cells/ μ l for cohort 1, -204 cells/ μ l for cohort 2, and -77 cells/ μ l for cohort 3. Of note, cohort 3 had a lower baseline value for blood eos which may affect the absolute value change from baseline. The change from baseline in FeNO at week 12 was -28 ppb for cohort 1, -47 ppb for cohort 2 and -37 for cohort 3.



For the pharmacodynamic population, data collected after the dosing pause were excluded (n=2 in 100 mg cohort after Week 8 and n=2 mg cohort after Week 4).

^a Data from the placebo groups in all cohorts were pooled for analysis.

FeNo, fractional exhaled nitric oxide; Q4W, every 4 weeks; Q12, every 12 weeks; SEM, standard error of mean.

Figure 16: Percent change from baseline through 32 weeks in eosinophils (left) and fraction of exhaled nitric oxide (right)

Our PK/PD modeling of the data generated in the Phase 1b MAD trial, as summarized in Figure 17 below, provides clinical proof-of-concept that verekitug has high potency in asthma patients. In particular, the potency of verekitug as assessed by suppression of FeNO is substantially greater than that reported for tezepelumab. Indeed, the half-maximal effective concentration (“EC₅₀”) of verekitug, 0.008 μ g/ml is 300-fold lower than that of tezepelumab, an anti-TSLP ligand antibody approved for use in severe asthma.

Verekitug			Tezepelumab		
E _{MAX} (reduction from BL)	EC ₅₀ (μ g/ml)	EC ₉₀ (μ g/ml)	E _{MAX} (reduction from BL)	EC ₅₀ (μ g/ml)	EC ₉₀ (μ g/ml)
43.4 %; 95% CI [36.6-50.4]	0.008	0.07	27.8 %; 95% CI (23.1-32.2)	2.5	22.5

- >300-fold lower EC₅₀ /EC₉₀ compared to Tezepelumab
- ~1.5 times greater maximal reduction in PD (FeNO)

Figure 17: Maximal, 50% and 90% effective concentrations of verekitug

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Data from the Phase 1 SAD and Phase 1b MAD clinical trials enabled for further PK simulations of verekitug to determine the doses for a Phase 2 clinical trial, as shown in Figure 18 below. Doses of 100 mg Q12W SC and 400 mg SC every 24 weeks (Q24W) were projected to sustain serum concentrations of verekitug above the MAD-derived FeNO EC₉₀ of 0.07 mg/L that was established in the MAD study for the entirety of the dosing interval, including at trough. For this reason, these doses are being tested in our Phase 2 trial in severe asthma.

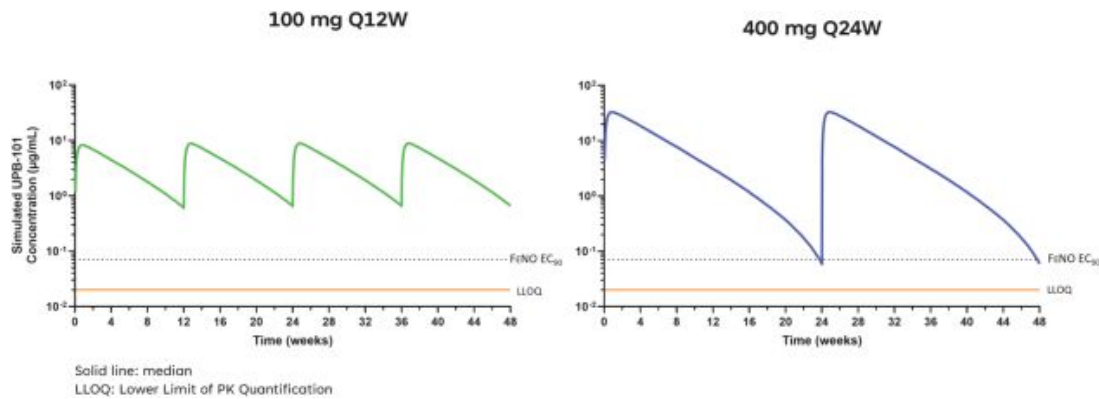


Figure 18: PK simulations of verekitug. Solid line = median, Shadow = 5-95 percentile prediction range

Japan PK trial

We also completed a third Phase 1 clinical trial of verekitug to support clinical development in Japan and other Asian countries. This study was an open-label, single dose, randomized PK and safety study to enable a comparison of verekitug's profile in Japanese vs. non-Japanese/non-East Asian participants. The study enrolled 32 healthy adult volunteers with eight participants in each of four treatment groups. Three cohorts (100 mg, 200 mg, 300 mg dose) were enrolled with Japanese participants and the fourth cohort enrolled solely non-Japanese/non-East Asian participants. The study showed a comparable verekitug PK profile between the two groups.

Summary of clinical results

To date, verekitug has demonstrated a favorable tolerability profile and unique pharmacology that is consistent across preclinical and clinical studies. The high potency seen in preclinical studies has accompanied clinical evidence of rapid and complete TSLP receptor occupancy, and reductions in disease-associated biomarkers, including FeNO and eos, that were rapid, substantial and sustained for up to 24 weeks after the last dose. These data underpin our clinical development strategy for verekitug in severe asthma and CRSwNP and support our Phase 2 trial designs investigating 12- and 24-week dosing.

Ongoing and planned clinical trials

We are currently enrolling two Phase 2 clinical trials of verekitug.

Severe asthma

VALIANT is a Phase 2 multicenter, randomized, placebo-controlled, parallel group clinical trial to assess the efficacy and safety of verekitug in participants with severe asthma. We expect to enroll an estimated 436 adults, aged 18 to 75 years, that will be randomized 1:1:1:1 to receive verekitug at doses of 100 mg Q12W, 400 mg Q24W and 100 mg Q24W and placebo administered SC.

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The primary endpoint of the trial is annual AAER measured up to week 60. This primary endpoint has been used in several registrational trials for other biologic treatments for asthma. The trial's secondary endpoints include the following changes from baseline to week 60: forced expiratory volume in one second of pre-bronchodilator, change in FeNO, change in asthma control questionnaire-6, and characterization of safety. We have designed this trial to serve as a potentially pivotal trial for future regulatory submissions.

We previously announced initiation of this trial in March 2024 and expect top-line data from this trial in .

CRSwNP

VIBRANT is a Phase 2 multicenter, randomized, placebo-controlled, parallel group clinical trial designed to assess the efficacy and safety of verekitug in participants with CRSwNP. We expect to enroll approximately 70 adults, aged 18 to 75 years, that will be randomized to receive either 100 mg Q12W of verekitug or placebo administered SC over a 24-week treatment period.

The primary endpoint of the trial is change from baseline in nasal polyp score ("NPS") at week 24. This primary endpoint has been used in several registrational trials for other biologic treatments for CRSwNP. The secondary endpoints include the following changes from baseline to week 24: nasal congestion score evaluated by the nasal polyposis symptom diary ("NPSD"), opacification of sinuses measured by Lund Mackay Score, difficulty with sense of smell evaluated by the NPSD, percentage of participants requiring systemic corticosteroids or NP surgery, time to NP surgery and/or time to systemic corticosteroids for NP, NPSD – Total Symptom Score, and characterization of safety. We have designed this trial to serve as a potentially pivotal trial for future regulatory submissions.

We previously announced initiation of this trial in January 2024 and expect top-line data from this trial in .

COPD

We are currently planning a clinical trial of verekitug in patients with COPD. and anticipate that this study will be a multicenter, randomized, placebo-controlled, parallel group clinical trial designed to assess the efficacy and safety of verekitug in participants with uncontrolled COPD. Aligned with recent trials of biologics in this condition, the primary endpoint is envisioned to be the annualized exacerbation rate over at least 52 weeks. Additional endpoints will capture lung function, patient symptoms and characterization of safety.

Future opportunities

Research has shown TSLP to be either a risk factor for or a key driver of inflammatory diseases across several therapeutic areas, including respiratory, gastroenterology, dermatology, nephrology and allergy/immunology. Thus, we believe there is a significant opportunity to expand the impact of verekitug beyond severe respiratory diseases, including dermatology (e.g., atopic dermatitis) and gastroenterology. For example, other TSLP pathway-directed biologics are pursuing indications such as chronic urticaria, bullous pemphigoid, chronic pruritis and eosinophilic esophagitis. In parallel to conducting our own preclinical work in target indications, we will carefully monitor the results of these trials which have the potential to inform our selection of future indications for verekitug.

Manufacturing and supply

Our current strategy is to outsource all manufacturing of verekitug or any other potential future product candidates to third parties. We leverage third-party manufacturers to support the manufacturing of verekitug for clinical trials and, if we receive regulatory approval, we intend to rely on such third parties for commercial manufacture. We have manufactured sufficient supply for our two ongoing Phase 2 trials as well as our planned COPD trial. We do not own or operate any manufacturing facilities for the production of clinical or commercial quantities of verekitug or any other potential future product candidates. We believe this strategy will enable us to maintain a nimble, efficient and effective working model without making significant internal capital investments. We currently obtain our supplies from these manufacturers on a purchase order basis and do not have any long-term supply agreements in place. In order to de-risk our supply chain, and as we advance toward potential commercialization, we intend to enter into long-term supply agreements as well as evaluate additional product manufacturing sources.

We rely, and expect to continue to rely, on third-party manufacturers to provide all of the active pharmaceutical ingredients and the final drug product formulation of verekitug that is being used in our clinical trials and preclinical studies in compliance with FDA and other foreign regulatory requirements, and on contract development and manufacturing organizations (“CDMOs”) to manufacture and supply our preclinical and clinical materials. We have made technical development a major focus of our efforts and have worked to improve the formulation and manufacturing process in place at the time of our acquisition of verekitug in 2021. This effort has resulted in a greater than 6-fold improvement in the concentration of the formulation of verekitug, from 30 mg/mL to 200 mg/mL, which has enabled the ability to employ both a 0.5mL (100 mg) and a 2.0mL (400 mg) SC injection in our severe asthma Phase 2 clinical trial. These process improvements have led to an approximately 35% increase in yield as well, while maintaining comparable product quality.

We have personnel with significant technical, manufacturing, analytical, quality, regulatory, including current Good Manufacturing Practices (“cGMP”), and project management experience to oversee our third-party manufacturers and to manage manufacturing and quality data and information for regulatory compliance purposes. At the appropriate time, we will determine whether to establish in-house manufacturing capabilities or continue to rely on third parties to manufacture commercial quantities for verekitug or any future products for which we may successfully develop and obtain regulatory approval.

Competition

The biopharmaceutical industry is characterized by rapid advancing technologies, intense competition and a strong emphasis on proprietary and novel products and product candidates. Our competitors have developed, are developing or may develop products, product candidates and processes competitive with verekitug. Verekitug and any future product candidates that we successfully develop and commercialize will compete with existing therapies and new therapies that may become available in the future. Our competitors include larger and better-funded pharmaceutical, biopharmaceutical, biotechnological and therapeutics companies. Moreover, we may also compete with universities, governmental agencies and other public and private research institutions who may be active in research in our target indications and could be in direct competition with us. We also compete with these organizations to recruit management, scientists and clinical development personnel, and our inability to compete successfully could negatively affect our level of expertise and our ability to execute our business plan. We will also face competition in establishing clinical trial sites, enrolling subjects for clinical trials and in identifying and in-licensing intellectual property related to new product candidates, as well as entering into collaborations, joint ventures, license agreements and other similar arrangements. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

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Existing therapeutics for asthma include controller medications, reliever medications and more recently, biologics from Genentech, Inc. (“Genentech”) and Novartis Pharmaceuticals Corporation (“Novartis”) (Xolair), Sanofi and Regeneron (Dupixent), GlaxoSmithKline (“GSK”) (NuCALA), AstraZeneca (Fasenra), and Amgen and AstraZeneca (Tezspire). Existing therapeutics for CRSwNP include topical corticosteroids, nasal saline irrigations and more recently, biologics from Genentech and Novartis (Xolair), Sanofi and Regeneron (Dupixent) and GSK (NuCALA). Existing therapeutics for COPD include inhaled steroids and bronchodilator inhalers. No biologics are currently approved for COPD, however, biologics are in development by Sanofi and Regeneron (Dupixent) (under FDA review) and Amgen and AstraZeneca (Tezspire).

While there are numerous biologics approved for the treatment of severe asthma, tezepelumab, a monoclonal antibody targeting the TSLP ligand, is the first and only treatment for severe asthma without any biomarker limitation. To our knowledge, verekitug is the only monoclonal antibody currently in clinical development that targets and inhibits the TSLP receptor.

If we successfully obtain approval for verekitug and any future product candidates, we believe that the key competitive factors that will affect the success of these candidates will be efficacy, safety, tolerability, convenience, price, the level of generic competition and the availability of reimbursement from commercial, government and other third-party payors relative to such competing products. Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are superior in one or more of these categories. Our competitors also may obtain FDA or other regulatory approval for their products more rapidly than we do, which could result in our competitors establishing a strong market position before we are able to enter the market.

Intellectual property

We strive to protect and enhance the proprietary technology, inventions and improvements that are commercially important to the development of our business, including seeking, maintaining and defending patent rights, whether developed internally or licensed from third parties. We may also rely on trademarks, copyrights and trade secrets relating to our proprietary technology platform and on know-how, continuing technological innovation and in-licensing opportunities to develop, strengthen and maintain our proprietary and intellectual property position. We additionally may rely on regulatory and other protections afforded through data exclusivity, market exclusivity and patent term extensions, where available.

Our commercial success depends in part upon our ability to obtain and maintain patent and other proprietary protection for commercially important technologies, inventions and trade secrets related to our business, defend and enforce our intellectual property rights, particularly our patent rights, preserve the confidentiality of our trade secrets and operate without infringing valid and enforceable intellectual property rights of others.

The patent positions for biotechnology and pharmaceutical companies like us are generally uncertain and can involve complex legal, scientific and factual issues. In addition, the coverage claimed in a patent application can be significantly reduced before a patent is issued, and its scope can be reinterpreted and even challenged after issuance. As a result, we cannot guarantee that any of our product candidates will be protectable or remain protected by enforceable patents. We cannot predict whether the patent applications we 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. Any patents that we hold may be challenged, circumvented or invalidated by third parties.

Verekitug program

We own 12 patent families directed to verekitug. A first patent family is directed to compositions of matter of verekitug and methods of using the same for treating asthma and expire in 2034, without taking a potential patent term extension into account. As of June 1, 2024, this first patent family has two issued U.S. patents, 20 issued patents in foreign jurisdictions, including Argentina, Australia, Brazil, Canada, an EPO patent (validated in Albania, Austria, Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, Great Britain, Greece, Hungary, Ireland, Iceland, Italy, Liechtenstein, Latvia, Lithuania, Monaco, Macedonia, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Sweden, Slovenia, Slovakia, and Turkey), Hong Kong, Indonesia, Israel, India, Japan, South Korea, Mexico, Philippines, Russia, Serbia, Singapore, Taiwan, Ukraine, Vietnam and South Africa, and one pending application in a foreign jurisdiction in Thailand. A second patent family is directed to certain formulations that could be used with verekitug and methods of treating humans with asthma with such formulations, which expire in 2037, without taking a potential patent term extension into account. As of June 1, 2024, this second family includes 2 issued U.S. patents, one pending U.S. non-provisional application, 10 issued patents in foreign jurisdictions, including Canada, two in Japan, Macao, Mexico, Philippines, Russia, Singapore, and two in Taiwan, and 10 pending applications in foreign jurisdictions, including in Canada, Europe, Hong Kong, Indonesia, Japan, South Korea, Malaysia, Singapore, Thailand, and Vietnam. The third patent family is directed to certain formulations that could be used with verekitug and methods of using the same and, if the patents were to issue from this third patent family they would expire in 2042. As of June 1, 2024, this third family has one pending U.S. non-provisional application, two applications pending in foreign jurisdictions, including Taiwan and Argentina, and one pending PCT application. The other nine patent families are directed to methods of using verekitug and comprise 12 pending U.S. provisional patent applications. Should any patents issue based on these other nine patent families they would expire in 2044, without taking a potential patent term extension into account.

The term of individual patents depends upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, the patent term is 20 years from the earliest date of filing a non-provisional patent application.

In the United States, the term of a patent covering an FDA-approved drug may 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 beyond the expiration of the patent, 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 may be extended, and a given patent may only be extended once. Similar provisions are available in Europe and in certain other jurisdictions to extend the term of a patent that covers an approved drug. If our product candidates receive FDA approval, we intend to apply for patent term extensions, if available, to extend the term of patents that cover the approved product candidates. We also intend to seek patent term extensions in any jurisdictions where they are 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.

In addition to patent protection, we also rely on know-how and trade secret protection for our proprietary information to develop and maintain our proprietary position. However, trade secrets can be difficult to protect. Although we take steps to protect our proprietary information, including restricting access to our premises and our confidential information, as well as entering into agreements with our employees, consultants, advisors and potential collaborators, third parties may independently develop the same or similar proprietary information or may otherwise gain access to our proprietary information. As a result, we may be unable to meaningfully protect our know-how, trade secrets, and other proprietary information.

In addition, we plan to rely on regulatory protection based on orphan drug exclusivities, data exclusivities, and market exclusivities. See “— Government regulation” for additional information.

Asset purchase and license agreements

Asset acquisition from Astellas

In October 2021, we entered into an asset purchase agreement with Astellas Pharma, Inc. (“Astellas”), which we refer to as the “Astellas Asset Purchase Agreement.” Pursuant to the Astellas Asset Purchase Agreement, we purchased from Astellas the compound designated by Astellas as ASP7266 (the “Compound”), the corresponding patent rights and any unregistered intellectual property rights, inventory related to the Compound, documents, data and copies of all filings and material correspondence with regulatory agencies (and the data included therein), and obtained an exclusive license under certain processes and methods of manufacture, testing, qualifying and use of the Compound to manufacture the Compound, with an upfront cash payment of \$81.1 million. The Compound was renamed by us as verekitug (UPB-101). There are no future payments owed to Astellas under the Astellas Asset Purchase Agreement.

Related letter agreement with Astellas and Regeneron

In connection with the Astellas Asset Purchase Agreement, we concurrently entered into a letter agreement with Astellas and Regeneron Pharmaceuticals, Inc. (“Regeneron”), which we refer to as the “Regeneron Letter Agreement.” The Regeneron Letter Agreement relates to a prior Non-Exclusive License and Material Transfer Agreement (the “Terminated Regeneron License Agreement”) that Regeneron and Astellas entered into in March 2007, as amended in July 2010 and subsequently terminated in June 2018, subject to certain surviving rights and obligations of both Regeneron and Astellas. Under the Terminated Regeneron License Agreement, Astellas utilized Regeneron’s human antibody technology in its internal research programs to discover certain product candidates, including the Compound, which it sold to us under the Astellas Asset Purchase Agreement.

Under the Regeneron Letter Agreement, Astellas assigned and transferred to us and we assumed and accepted certain of Astellas’ surviving rights and obligations under the Terminated Regeneron License Agreement, including Astellas’ royalty payment, reporting and indemnification obligations in connection with activities conducted by us or on our behalf with respect to the Compound. By assuming and accepting Astellas’ surviving obligations under the Terminated Regeneron License Agreement, we are required to pay Regeneron mid-single-digit percentage royalties on aggregate worldwide net sales of any product developed by or on behalf of us that contains the Compound as an ingredient or component of the materials sold (a “Royalty Product”) during the royalty term. The royalties are determined on a product-by-product and country-by-country basis and expire on the later of (i) a specified number of years after the launch of a given Royalty Product in a given country and (ii) the expiration of the last valid claim of royalty bearing company patent rights claiming or covering such Royalty Product in such country.

Exclusive license agreement with Maruho

In October 2021, we entered into a license agreement with Maruho Co., Ltd. (“Maruho”), as amended on May 30, 2023, which we refer to as the “Maruho License Agreement,” under which we granted to Maruho an exclusive, irrevocable, perpetual, royalty-free, sublicensable (subject to our right of first negotiation as described below) license. The license was under certain intellectual property rights controlled by us or our affiliates to research, develop, manufacture via a third party contract manufacturer, sell and import any pharmaceutical, biologic or medical device product (or any combination thereof), which (i) was or is developed by or on behalf of us or our affiliates, and (ii) incorporates or uses the compound designated by Astellas as ASP7266 in Japan (collectively, the “Maruho License Product”).

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Pursuant to the Maruho License Agreement, we are responsible for and control the global research and development of the Maruho License Product, including in Japan. We will develop the Maruho License Product for use in Japan as part of our global development strategy, and as much as possible on a similar schedule as we develop the Maruho License Product for our initial territory(ies). Maruho will reimburse us for all costs reasonably necessary for any development activities for the Maruho License Product that are specific to Japan, including the cost of the supply of Maruho License Product for use in any preclinical and clinical research and development activities in Japan.

Under the Maruho License Agreement, Maruho is responsible for and controls, at its sole expense, (i) the preparation, filing, prosecution, obtaining and maintaining all regulatory approvals for the Maruho License Product in Japan and (ii) the promotion, marketing, sale and commercialization of the Maruho License Product in Japan. Maruho shall procure the supply of Maruho License Product for commercialization in Japan by purchasing from a contract manufacturing organization (“CMO”) used by us, from us directly, or in the event the supply from the foregoing sources doesn’t meet the legal requirements in Japan, from a new third-party CMO selected by Maruho in consultation with us. In addition, under the Maruho License Agreement, we granted Maruho a right of first negotiation, exercisable between the effective date of the Maruho License Agreement and the earlier of (a) October 11, 2027 and (b) the occurrence of a merger and acquisition of us by a third party, such that, in the event of our actual liquidation (not including deemed liquidation events such as a merger and acquisition by third parties), Maruho has the right to first negotiate to purchase all of our asset relating to the Maruho License Product. Maruho also granted us a right of first negotiation, exercisable between the effective date of the Maruho License Agreement and the earlier of (a) the fifth anniversary of such effective date and (b) a change of control of us, such that, in the event Maruho desires to sell, assign sublicense or otherwise transfer any or all of Maruho’s rights under the Maruho License Agreement, we have a right to first negotiate to acquire such rights.

Both parties waive their right to termination of the Maruho License Agreement for any reason, except that Maruho has the right to terminate the Maruho License Agreement at any time by providing 60 days prior written notice to us.

License agreement with Lonza

In October 2021, in connection with the Astellas Asset Purchase Agreement, we entered into a license agreement with Lonza Sales AG (“Lonza”), as amended on March 18, 2022 and April 19, 2022, which we refer to as the “Lonza License Agreement.” Pursuant to the Lonza License Agreement, we obtained a worldwide, non-exclusive, sublicensable (subject to Lonza’s right of pre-approval with respect to any sublicense of manufacturing activities) license to certain intellectual property rights owned by Lonza. The license allows us to use Lonza’s glutamine synthetase gene expression system (“Lonza System”) to develop, manufacture and commercialize the Compound, including any part of such system that is embodied within or otherwise used to create the cell lines expressing the Compound or a component thereof. Lonza was the originator of the master cell bank for the Compound developed by Astellas, and we are required to comply with certain restrictions with regard to the use of Lonza System, including not to transfer, reverse engineer or modify the Lonza System without Lonza’s prior written consent.

As consideration for the rights and licenses granted to us under the Lonza License Agreement, we agreed to pay Lonza the following:

- If Lonza manufactures the Compound for us, a less-than-one-percent royalty on net sales of the Compound;
- If we, or our affiliates or strategic partner manufacture the Compound, a less-than-one-percent royalty on net sales of the Compound and a low-six-figure annual payment first payable upon initiation of a phase 2 clinical trial of the Compound and thereafter on each anniversary of such date; and

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- If we sublicense the manufacturing of the Compound to a third-party manufacturer, a low-single-digit percentage royalty on net sales of the Compound and a mid-six-figure annual payment per sublicense for the duration of such sublicense, first payable upon the commencement date of such sublicense.

Any royalties due under the Lonza License Agreement are payable on a country-by-country basis until ten years from the first commercial sale of the Compound in that particular country.

We have the right to terminate the Lonza License Agreement at any time by providing 60 days prior written notice to Lonza. Furthermore, we and Lonza each have the right to terminate the Lonza License Agreement upon the occurrence of a material breach of such agreement by the other party that is irremediable or not remedied within a certain period of time, or the other party's failure to pay debts or entry into liquidation. Lonza also may terminate the Lonza License Agreement by providing written notice to us if we contest the secret or substantial nature of the know-how relating to the Lonza System that is licensed to us under the Lonza License Agreement.

Government regulation

Regulation of biological products in the United States

In the United States, the FDA regulates biological products under the Federal Food, Drug, and Cosmetic Act ("FDCA"), the Public Health Service Act ("PHSA"), and their implementing regulations. Biological products are also subject to other federal, state and local statutes and regulations. Verekitug is in clinical development and has not been approved by the FDA for marketing in the United States.

An applicant seeking approval to market and distribute a new biological product in the United States generally must satisfactorily complete each of the following steps:

- preclinical laboratory tests, animal studies and formulation studies performed in accordance with the FDA's Good Laboratory Practices ("GLP") regulations, as applicable;
- completion of the manufacture, under cGMP conditions, of the product candidate that the sponsor intends to use in human clinical trials along with required analytical and stability testing;
- submission to the FDA of an Investigational New Drug application ("IND"), for human clinical testing, which must become effective before human clinical trials may begin;
- approval by an independent institutional review board ("IRB") representing each clinical trial site before each clinical trial site may be initiated;
- performance of adequate and well-controlled human clinical trials, in accordance with current Good Clinical Practices ("GCP") and any additional nonclinical studies required to establish the safety and effectiveness of the product candidate for each proposed indication;
- preparation and submission to the FDA of a biologics license application ("BLA"), as applicable, requesting approval to market the product candidate for one or more proposed indications, including submission of detailed information on the manufacture and composition of the product and proposed labeling;
- review of the product by an FDA advisory committee, where appropriate and as applicable;
- satisfactory completion of one or more FDA inspections of the manufacturing facility or facilities, including those of third parties, at which the product, or components thereof, are produced to assess compliance with cGMP and to assure that the facilities, methods and controls are adequate to preserve the product's identity, strength, quality and purity;

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- satisfactory completion of any FDA audits of the preclinical studies and clinical trial sites to assure compliance with GLP, as applicable, and GCP, and the integrity of clinical data in support of the BLA;
- payment of user fees under the Prescription Drug User Fee Act (“PDUFA”), unless exempted;
- obtaining FDA approval, or licensure, of the BLA; and
- compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy (“REMS”) and any post-approval studies or other post-marketing commitments required by the FDA.

The failure to comply with the applicable U.S. requirements at any time during the product development process, including preclinical testing, clinical testing, and the approval process, or the post-approval process, may subject an applicant to delays in development, regulatory review or approval and/or administrative or judicial sanctions. These sanctions may include, but are not limited to, the FDA's refusal to allow an applicant to proceed with clinical testing, refusal to approve pending applications, license suspension or revocation, withdrawal of an approval, issuance of warning or untitled letters, adverse publicity, product recalls, marketing restrictions, product seizures, import detentions and refusals, total or partial suspension of production or distribution, injunctions, fines and civil or criminal investigations and penalties brought by the FDA or the Department of Justice (“DOJ”), and other governmental entities, including state agencies.

Preclinical studies and investigational new drug application

Before testing any product candidate in humans, the product candidate must undergo preclinical testing. Preclinical tests include laboratory evaluations of product chemistry, formulation and stability, as well as studies to evaluate the potential for efficacy and toxicity in animal studies. The conduct of the preclinical tests and formulation of the compounds for testing must comply with federal regulations and requirements. The results of the preclinical tests, together with manufacturing information, analytical data, and plans for the proposed clinical studies, are submitted to the FDA as part of an IND application. Some preclinical testing may continue after an 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 about the product candidate or conduct of the proposed clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks, and places the clinical trial on a partial or complete clinical hold. In that case, the IND sponsor and the FDA must resolve the clinical hold issues before the clinical trials can begin.

Clinical holds also may be imposed by the FDA after clinical trials have begun, including if there is concern for patient safety, as a result of new data, findings, or developments in clinical, preclinical and/or chemistry, manufacturing and controls, or where there is non-compliance with regulatory requirements. A separate submission to an existing IND must be made for each successive clinical trial conducted during development, and the FDA reviews such submissions before each clinical trial can begin.

Human clinical trials in support of a BLA

Clinical trials involve the administration of the investigational product candidate to healthy volunteers or patients with the disease or condition to be treated under the supervision of qualified investigators in accordance with GCP requirements. Clinical trials are conducted under protocols detailing, among other things, the objectives of the trial, dosing procedures, inclusion and exclusion criteria, the parameters to be used in monitoring safety, and the effectiveness criteria to be evaluated. A protocol for each clinical trial and any

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subsequent protocol amendments must be submitted to the FDA as part of the IND. Clinical testing also must satisfy extensive GCP rules and the requirements for informed consent.

A sponsor who wishes to conduct a clinical trial outside the United States may, but need not, obtain FDA authorization to conduct the clinical trial under an IND. When a foreign clinical trial is conducted under an IND, all FDA IND requirements must be met unless waived. The FDA will accept a well-designed and well-conducted foreign clinical study not conducted under an IND if the study was conducted in accordance with GCP requirements, and the FDA is able to validate the data through an onsite inspection if deemed necessary. The GCP requirements encompass both ethical and data integrity standards for clinical trials. 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.

Further, each clinical trial must be reviewed and approved by an IRB either centrally or individually at each institution at which the clinical trial will be conducted. The IRB will consider, among other things, clinical trial design, patient informed consent, ethical factors, the safety of human subjects and the possible liability of the institution. An IRB must operate in compliance with FDA regulations. The FDA, IRB, or the clinical trial sponsor may suspend or discontinue a clinical trial at any time for various reasons, including a finding that the clinical trial is not being conducted in accordance with GCP requirements or that the participants are being exposed to an unacceptable health risk.

Additionally, some clinical trials are overseen by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board ("DSMB"), or data monitoring committee ("DMC"). This group may recommend continuation of the trial as planned, changes in trial conduct, or cessation of the trial at designated check points based on certain available data from the trial to which only the DSMB/DMC has access.

Clinical trials typically are conducted in three sequential phases, but the phases may overlap or be combined. Additional studies may be required after approval.

- Phase 1 clinical trials are initially conducted in a limited population of healthy subjects or disease-affected patients to test the product candidate for safety, including adverse effects, dose tolerance, absorption, metabolism, distribution, excretion and pharmacodynamics.
- Phase 2 clinical trials are generally conducted in a limited patient population to identify possible adverse effects and safety risks, evaluate the efficacy of the product candidate for specific targeted indications and determine dose tolerance and optimal dosage. Multiple Phase 2 clinical trials may be conducted by the sponsor to obtain information prior to beginning larger and more costly Phase 3 clinical trials.
- Phase 3 clinical trials typically proceed if the Phase 2 clinical trials demonstrate that a dose range of the product candidate is potentially effective and has an acceptable safety profile. Phase 3 clinical trials are generally undertaken within an expanded patient population to provide substantial evidence of clinical efficacy and further test for safety in an expanded and diverse patient population at multiple, geographically dispersed clinical trial sites to provide a basis for physician labeling and for submitting a BLA to seek regulatory approval for a biological product.

In some cases, the FDA may approve a BLA but require the sponsor to conduct additional clinical trials to further assess the product's safety and effectiveness after approval. Such post-approval trials are typically referred to as Phase 4 clinical trials. These studies are used to gain additional experience from the treatment of patients in the approved indication and, where applicable, to confirm a clinical benefit for products approved

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under accelerated approval. The failure to exercise due diligence with regard to conducting Phase 4 clinical trials could result in withdrawal of approval for products.

Information about applicable clinical trials must be submitted within specific timeframes to the National Institutes of Health (“NIH”) for public dissemination on its ClinicalTrials.gov website.

Progress reports detailing the results of the clinical trials, among other information, must be submitted at least annually to the FDA and written IND safety reports must be submitted to the FDA and the investigators for serious and unexpected suspected adverse events, findings from other studies or animal or *in vitro* testing that suggest a significant risk for human subjects 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 submit an IND safety report within 15 calendar days after the sponsor determines that the information qualifies for reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within seven calendar days after the sponsor’s initial receipt of the information.

Under the Pediatric Research Equity Act, a BLA or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the product for the claimed indications in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. The FDCA requires that a sponsor who is planning to submit a marketing application for a product that includes a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration submit an initial Pediatric Study Plan (“PSP”) within 60 days of an end-of-phase 2 meeting or as may be agreed between the sponsor and FDA. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests and other information required by regulation. The sponsor and the FDA must reach agreement on the PSP. The FDA or the sponsor may request an amendment to the plan at any time.

The FDA may, on its own initiative or at the request of the sponsor, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Unless otherwise required by regulation, the pediatric data requirements do not apply to products with orphan designation.

Compliance with cGMP requirements

Concurrent with clinical trials, companies must finalize a process for manufacturing the product candidate in commercial quantities in accordance with cGMP requirements. To help reduce the risk of introduction of adventitious agents with the use of biological products, the PHSA emphasizes the importance of manufacturing controls for products with attributes that cannot be precisely defined. The manufacturing process must be capable of consistently producing quality batches of the product and, among other things, companies must develop methods for testing the identity, strength, quality and purity of the final product. Additionally, appropriate packaging must be selected and tested and stability studies must be conducted to demonstrate that the product candidate does not undergo unacceptable deterioration over its shelf life. Before approving a BLA, the FDA will typically 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.

Manufacturers and others involved in the manufacture and distribution of products must also register their establishments with the FDA and certain state agencies. Both domestic and foreign manufacturing establishments must register and provide additional information to the FDA upon their initial participation in the manufacturing process. Establishments may be subject to periodic unannounced inspections by government

authorities to ensure compliance with cGMPs and other laws. Noncompliance with such requirements can lead to adverse findings by the FDA during these inspections; in instances of significant or continued noncompliance, such adverse findings can serve as the basis for additional regulatory action by the FDA, including but not limited to warning letters, recalls, seizure, consent decrees, fines, and/or criminal penalties.

Review and approval of a BLA

The results of product candidate development, preclinical testing and clinical trials, including negative or ambiguous results as well as positive findings, are submitted to the FDA as part of a BLA requesting approval to market the product for one or more specified indications. The BLA must contain extensive manufacturing information and detailed information on the composition of the product and proposed labeling as well as payment of a user fee. Under federal law, the submission of most BLAs are subject to an application user fee. The sponsor of an approved BLA is also subject to an annual program fee. Certain exceptions and waivers are available for some of these fees, such as an exception from the application fee for products with orphan designation and a waiver for certain small businesses.

The FDA has 60 days after submission of the application to conduct an initial review to determine whether to accept it for filing based on the agency's threshold determination that it is sufficiently complete to permit substantive review. The FDA may refuse to file any BLA that it deems incomplete or not properly reviewable at the time of submission and may request additional information. In this event, the BLA must be resubmitted with the additional information. The resubmitted application also is subject to review before the FDA accepts it for filing. If the submission has been accepted for filing, the FDA begins an in-depth review of the application. Under the goals and policies agreed to by the FDA under PDUFA, the FDA has ten months in which to complete its initial review of a standard application and respond to the applicant, and six months for a priority review of the application. The FDA does not always meet its PDUFA goal dates for standard and priority BLAs. The review process may be significantly extended by FDA requests for additional information or clarification. The review process and the PDUFA goal date may be extended by three months if the FDA requests or if the applicant otherwise provides additional or clarifying information within the last three months before the PDUFA goal date.

The FDA reviews a BLA to determine, among other things, whether the product 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 likely will reanalyze the clinical trial data, which could result in extensive discussions between the FDA and the applicant during the review process. On the basis of the FDA's evaluation of the application and accompanying information, including the results of the inspection of the manufacturing facilities and any FDA audits of preclinical and clinical trial sites to assure compliance with GCPs, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. If the application is not approved, the FDA will issue a complete response letter, which will contain the conditions that must be met in order to secure final approval of the application, and when possible, will outline recommended actions the sponsor might take to obtain approval of the application. The complete response letter may require additional clinical data and/or other significant and time-consuming requirements related to clinical trials, preclinical studies or manufacturing. Sponsors that receive a complete response letter may submit to the FDA information that represents a complete response to the deficiencies identified by the FDA. The FDA will then re-review the application, taking into consideration the response, and determine whether the application meets the criteria for approval. The FDA will not approve an application until issues identified in any complete response letters have been addressed. Failure to respond to a complete response letter may be considered by the FDA as a request to withdraw the application.

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The FDA may refer applications for novel products or products that present difficult questions of safety or efficacy to an advisory committee. Typically, 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, if any. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Even if the FDA approves a new product, the approval may be limited to specific disease states, patient populations and dosages, or the indications for use may otherwise be limited. It may also require that contraindications, warnings, or precautions be included in the product labeling. In addition, the FDA may require post-approval studies, including phase 4 clinical trials, to further assess the product's efficacy and/or safety after approval. The agency may also require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including a REMS, to help ensure that the benefits of the product outweigh the potential risks. A REMS can include medication guides, communication plans for healthcare professionals and elements to assure safe use ("ETASU"). ETASU can include, but are not limited to, special training or certification for prescribing or dispensing, dispensing only under certain circumstances, special monitoring and the use of patient registries. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, many types of changes to the approved product, such as adding new indications, certain manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Fast track, breakthrough therapy and priority review designations

FDA provides programs intended to facilitate and expedite development and review of new products that are intended to address an unmet medical need in the treatment of a serious or life-threatening disease or condition. These programs are referred to as fast track designation, breakthrough therapy designation and priority review designation. These designations are not mutually exclusive, and a product candidate may qualify for one or more of these programs. While these programs are intended to expedite product development and approval, they do not alter the standards for FDA approval.

The FDA may designate a product for fast track designation if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For products with fast track designation, sponsors may have more frequent interactions with the FDA, the product is potentially eligible for accelerated approval and priority review, if relevant criteria are met, and the FDA may initiate review of sections of a product with fast track designation's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a product with fast track designation may be effective. The sponsor must also provide, and the FDA must approve, a schedule for the submission of the remaining information and the sponsor must pay applicable user fees. However, the FDA's time period goal for reviewing a fast track application does not begin until the last section of the application is submitted. In addition, the fast track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

A product may be designated as a breakthrough therapy if it is intended, either alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical

development. The FDA may take certain actions with respect to breakthrough therapies, including holding meetings with the sponsor throughout the development process; providing timely advice to the product sponsor regarding development and approval; involving more senior staff managers in the review process; assigning a cross-disciplinary lead for the review team; and taking other steps to design the clinical trials in an efficient manner. Breakthrough designation may be rescinded if a product no longer meets the qualifying criteria.

The FDA may designate a product for priority review if it is a product that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting adverse reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes and evidence of safety and effectiveness in a new subpopulation. A priority review designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA's goal for taking action on a marketing application from ten months to six months. Priority review designation may be rescinded if a product no longer meets the qualifying criteria.

Accelerated approval pathway

The FDA may grant accelerated approval to a product for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign, or other measure that is thought to predict clinical benefit but is not itself a measure of clinical benefit. The FDA may also grant accelerated approval for such a condition when the product has an effect on an intermediate clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality ("IMM"), and that is reasonably likely to predict an effect on IMM or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints but has indicated that such endpoints generally may support accelerated approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a product. Products granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

The accelerated approval pathway is most often used in settings in which the course of a disease is long, and an extended period of time is required to measure the intended clinical benefit of a product, even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly. The accelerated approval pathway is usually contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the product's clinical benefit. As a result, a product candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, confirm a clinical benefit during post-marketing studies or dissemination of false or misleading promotional materials would allow the FDA to withdraw the product from the market on an expedited basis. All promotional materials for therapeutic candidates approved under accelerated regulations are subject to prior review by the FDA.

Orphan drug designation

Orphan drug designation in the United States is designed to encourage sponsors to develop products intended for treatment of rare diseases or conditions. In the United States, a rare disease or condition is statutorily defined as a condition that affects fewer than 200,000 individuals in the United States or that affects 200,000 or more individuals in the United States and for which there is no reasonable expectation that the cost of developing and making available the biological product for the disease or condition will be recovered from sales of the product in the United States.

Orphan drug designation qualifies a sponsor for tax credits and the product for market exclusivity for seven years following the date of the product's marketing approval if granted by the FDA. An application for designation as an orphan product can be made any time prior to the filing of an application for approval to market the product. After FDA grants orphan designation, the product must then go through the review and approval process like any other product.

A sponsor may request orphan drug designation of a previously unapproved product or new orphan indication for an already marketed product. In addition, a sponsor of a product that is otherwise the same product as an already approved orphan drug may seek and obtain orphan drug designation for the subsequent product for the same rare disease or condition if it can present a plausible hypothesis that its product may be clinically superior to the first drug. More than one sponsor may receive orphan drug designation for the same product for the same rare disease or condition, but each sponsor seeking orphan drug designation must file a complete request for designation.

If a product with orphan designation receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will receive orphan drug exclusivity. Orphan drug exclusivity means that the FDA may not approve another sponsor's marketing application for the same product for the same indication for seven years, except in certain limited circumstances. If a product designated as an orphan drug ultimately receives marketing approval for an indication broader than what was designated in its orphan drug application, it may not be entitled to exclusivity.

The period of exclusivity begins on the date that the marketing application is approved by the FDA and applies only to the indication for which the product has been designated. The FDA may approve a second application for the same product for a different use or a second application for a clinically superior version of the product for the same use. The FDA cannot, however, approve the same product made by another manufacturer for the same indication during the market exclusivity period unless it has the consent of the sponsor, or the sponsor is unable to provide sufficient quantities.

Pediatric exclusivity

Pediatric exclusivity is another type of non-patent marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of marketing protection to the term of any existing regulatory exclusivity, including orphan exclusivity. This six-month exclusivity may be granted if a BLA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be safe and effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA's request, the additional protection is granted and extends whatever statutory or regulatory periods of exclusivity that cover the product by six months.

U.S. patent term extension and marketing exclusivity

In the United States, a patent claiming a new biological product, its method of use or its method of manufacture may be eligible for a limited patent term extension under the Hatch-Waxman Act, which permits a patent extension of up to five years for patent term lost during product development and FDA regulatory review. The extension period is typically one-half the time between the effective date of the IND and the submission date of the BLA, plus the time between the submission date of the BLA and the ultimate approval date, except that the review period is reduced by any time during which the applicant failed to exercise due diligence. Patent term extension cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date in the United States. Only one patent applicable to an approved product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent for which extension is sought. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. The United States Patent and Trademark Office ("USPTO") reviews and approves the application for any patent term extension in consultation with the FDA.

Biosimilars and exclusivity

The Biologics Price Competition and Innovation Act of 2009 ("BPCIA") established a regulatory framework authorizing the FDA to approve biosimilars and interchangeable biosimilars. A biosimilar is a biological product that is highly similar to an already FDA-licensed biological product, called the "reference product." The FDA has issued multiple guidance documents outlining an approach to review and approval of biosimilars. Under the BPCIA, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a reference product. In order for the FDA to approve a biosimilar product, it must find that there are no clinically meaningful differences between the reference product and proposed biosimilar product in terms of safety, purity and potency. For the FDA to approve a biosimilar product as interchangeable with a reference product, the agency must find that the biosimilar product can be expected to produce the same clinical results as the reference product, and (for products administered multiple times) that the biosimilar product and the reference product may be switched without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date of approval of the reference product. The FDA may not approve a biosimilar product until 12 years from the date on which the reference product was approved. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full BLA for such product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products, which may be substituted by pharmacies for the reference product, subject to state pharmacy law.

Post-approval regulation

If regulatory approval for a product or new indication for an existing product is obtained, the sponsor will be required to comply with all generally applicable post-approval regulatory requirements as well as any specific post-approval requirements that the FDA may impose as part of the approval process. The sponsor will be required to report certain adverse reactions and production problems to the FDA, provide updated safety and efficacy information and comply with advertising and promotional labeling requirements and record-keeping requirements. Manufacturers and certain of their subcontractors must register their establishments with the FDA and certain state agencies and are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements, including cGMP regulations. Accordingly,

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the sponsor and its third-party manufacturers must continue to expend time, money and effort to maintain compliance with cGMP regulations and other regulatory requirements.

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 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;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending applications or supplements to approved applications, or suspension or revocation of product licenses;
- product recall, seizure or detention, or refusal to permit the import or export of products;
- withdrawal of the product from the market; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates the marketing, labeling, advertising and promotion of prescription biological products placed on the market. This regulation includes, among other things, standards and regulations for direct-to-consumer advertising, communications regarding unapproved uses, industry-sponsored scientific and educational activities and promotional activities involving the internet and social media. Promotional claims about a product's safety or effectiveness are prohibited before it is approved. After approval, a product generally may be promoted for uses or patient populations consistent with the product's prescribing information. In the United States, healthcare professionals are generally permitted to prescribe products for uses that are not approved by the FDA (sometimes called "off-label use") because the FDA does not regulate the practice of medicine. However, FDA regulations restrict manufacturers' communications about off-label uses. Promotional materials for approved biological products generally must be submitted to the FDA in conjunction with their first use.

If a company, including any representative of the company or anyone speaking on behalf of the company, is found to have promoted off-label uses, the company may become subject to adverse public relations and administrative and judicial enforcement by the FDA, the DOJ, or the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities. This could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes its products.

Data privacy and security laws

In the ordinary course of business, we collect, receive, or otherwise process personal data, including information we may collect about participants in our clinical trials. Accordingly, we are, or may become, subject to numerous data privacy and security obligations, including global, federal, state, and local laws, regulations, guidance, industry standards, external and internal privacy and security policies, contractual requirements and other obligations related to privacy and data security.

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Under the federal Health Insurance Portability and Accountability Act of 1996 (“HIPAA”), the U.S. Department of Health and Human Services (“HHS”), has issued regulations to protect the privacy and security of protected health information (“PHI”), used or disclosed by covered entities including certain healthcare providers, health plans and healthcare clearinghouses. HIPAA also regulates standardization of data content, codes and formats used in healthcare transactions and standardization of identifiers for health plans and providers. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 (“HITECH”), and their regulations, including the final omnibus rule published on January 25, 2013, also imposes certain obligations on the business associates of covered entities and their subcontractors that obtain protected health information in providing services to or on behalf of covered entities. In addition to federal privacy regulations, there are a number of state laws governing confidentiality and security of health information that are applicable to our business. In addition to possible federal administrative, civil and criminal penalties for HIPAA violations, state attorneys general are authorized to file civil actions for damages or injunctions in federal courts to enforce HIPAA and seek attorney’s fees and costs associated with pursuing federal civil actions. Accordingly, state attorneys general have brought civil actions seeking injunctions and damages resulting from alleged violations of HIPAA’s privacy and security rules. New laws and regulations governing privacy and security may be adopted in the future as well.

Additionally, states, such as California, Virginia and Colorado have recently enacted the consumer privacy laws that grant rights to data subjects and place increased privacy and security obligations on entities handling personal data of consumers or households. While we are not currently subject to laws such as the California Consumer Privacy Act (“CCPA”), some observers note that the CCPA and similar legislation could mark the beginning of a trend toward more stringent privacy legislation in the U.S., which could increase our potential liability and adversely affect our business.

Because of the breadth of these laws and the narrowness of the statutory exceptions under such laws, it is possible that some of our current or future business activities, including certain clinical research, sales and marketing practices and the provision of certain items and services to our customers, could be subject to challenge under one or more of such privacy and data security laws. The heightening compliance environment and the need to build and maintain robust and secure systems to comply with different privacy compliance and/or reporting requirements in multiple jurisdictions could increase the possibility that we may fail to comply fully with one or more of these requirements. If our operations are found to be in violation of any applicable privacy or data security laws or regulations, we may be subject to penalties, including potentially significant criminal, civil and administrative penalties, damages, fines, imprisonment, contractual damages, reputational harm, diminished profits and future earnings, additional reporting requirements and/or oversight if we become subject to a consent decree or similar agreement to resolve allegations of non-compliance with these laws, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. While there are some exemptions for certain data processed in the context of clinical trials, developments in data privacy and security laws may further complicate compliance efforts. The impact these increasingly stringent laws and evolving regulatory frameworks related to personal data processing may have on us is more fully discussed in the section titled “Risk factors” appearing elsewhere in this prospectus.

Additionally, to the extent we collect personal data from individuals outside of the United States, through clinical trials or otherwise, we are, or may become, subject to foreign data privacy and security laws, such as the European Union’s General Data Protection Regulation 2016/679 (“EU GDPR”) and other national data protection legislation in force in relevant EEA Member States, and the EU GDPR as it forms part UK law by virtue of section 3 of the European Union (Withdrawal) Act 2018 (“UK GDPR”). Foreign privacy and data security laws impose significant and complex compliance obligations on entities that are subject to those laws, as more fully discussed in the section titled “Risk factors” appearing elsewhere in this prospectus.

Regulation and procedures governing approval of medicinal products outside the United States

In order to market any product outside of the United States, a company must also comply with numerous and varying regulatory requirements of other countries and jurisdictions regarding quality, safety and efficacy and governing, among other things, clinical trials, marketing authorization, commercial sales and distribution of products. Whether or not it obtains FDA approval for a product, an applicant will need to obtain the necessary approvals by the comparable foreign regulatory authorities before it can commence clinical trials or marketing of the product in those countries or jurisdictions. For example, the process governing approval of medicinal products in the European Union generally follows the same lines as in the United States. It entails satisfactory completion of preclinical studies and adequate and well-controlled clinical trials to establish the safety and efficacy of the product for each proposed indication. It also requires the submission to the relevant competent authorities of a marketing authorization application (“MAA”) and granting of a marketing authorization by these authorities before the product can be marketed and sold in the European Union.

Clinical trial approval

In April 2014, the European Union adopted the Clinical Trials Regulation (EU) No 536/2014 (“CTR”), which entered into application on January 31, 2022 repealing and replacing the Clinical Trials Directive 2001/20/EC. The CTR is directly applicable in all European Union Member States meaning no national implementing legislation in each European Union Member State is required. The CTR aims at harmonizing and streamlining the approval of clinical trials in the European Union, simplifying adverse-event reporting procedures, improving the supervision of clinical trials and increasing their transparency. For instance, the CTR provides for a streamlined application procedure via a single-entry point and strictly defined deadlines for the assessment of clinical trial applications. Parties conducting certain clinical trials must, as in the United States, post clinical trial information in the European Union on the Clinical Trials Information System.

PRIME designation in the European Union

The PRiority MEdicines (“PRIME”), scheme is intended to encourage product development in areas of unmet medical need and provides accelerated assessment of products representing substantial innovation reviewed under the centralized procedure. Eligible products must target conditions for which there is an unmet medical need (there is no satisfactory method of diagnosis, prevention or treatment in the European Union or, if there is, the new medicine will bring a major therapeutic advantage) and they must demonstrate the potential to address the unmet medical need by introducing new methods of therapy or improving existing ones. Products from small- and medium-sized enterprises may qualify for earlier entry into the PRIME scheme than larger companies. Many benefits accrue to sponsors of therapeutic candidates with PRIME designation, including but not limited to early and proactive regulatory dialogue with the European Medicines Agency (“EMA”), frequent discussions on clinical trial designs and other development program elements, and potentially accelerated MAA assessment once a dossier has been submitted. Importantly, a dedicated EMA contact and rapporteur from the Committee for Medicinal Products for Human Use (“CHMP”) are appointed early in the PRIME scheme facilitating increased understanding of the product at the EMA’s Committee level. A kick-off meeting initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance on the overall development and regulatory strategies. Where, during the course of development, a medicine no longer meets the eligibility criteria, support under the PRIME scheme may be withdrawn.

Marketing authorization

To obtain a marketing authorization for a product under the European Union regulatory system, an applicant must submit an MAA, either under a centralized procedure administered by the EMA or one of the procedures administered by competent authorities in European Union Member States (decentralized procedure, national

procedure, or mutual recognition procedure). A marketing authorization may be granted only to an applicant established in the European Union. Regulation (EC) No 1901/2006 provides that prior to obtaining a marketing authorization in the European Union, an applicant must demonstrate compliance with all measures included in an EMA-approved Pediatric Investigation Plan (“PIP”), covering all subsets of the pediatric population, unless the EMA has granted a product-specific waiver, class waiver or a deferral for one or more of the measures included in the PIP. The Paediatric Committee of the EMA (“PDCO”), may grant deferrals for some medicines, allowing a company to delay development of the medicine for children until there is enough information to demonstrate its effectiveness and safety in adults. The PDCO may also grant waivers when development of a medicine for children is not needed or is not appropriate, such as for diseases that only affect the elderly population. The respective requirements for all marketing authorization procedures are laid down in Regulation (EC) No 1901/2006, the so-called Paediatric Regulation. This requirement also applies when a company wants to add a new indication, pharmaceutical form or route of administration for a medicine that is already authorized. Products that are granted a marketing authorization with the results of the pediatric clinical trials conducted in accordance with the PIP (even where such results are negative) are eligible for six months’ supplementary protection certificate extension. In the case of orphan medicinal products, a two-year extension of the orphan market exclusivity may be available. This pediatric reward is subject to specific conditions and is not automatically available when data in compliance with the PIP are developed and submitted.

The centralized procedure provides for the grant of a single marketing authorization by the European Commission that is valid for all European Union Member States, as well as the countries of the EFTA Pillar of the European Economic Area (Norway, Iceland and Liechtenstein) (“EEA”). Pursuant to Regulation (EC) No. 726/2004, the centralized procedure is compulsory for specific products, including for medicines produced by certain biotechnological processes, products designated as orphan medicinal products, advanced therapy medicinal products (gene-therapy, somatic cell-therapy or tissue-engineered medicines) and products with a new active substance indicated for the treatment of certain diseases, including products for the treatment of cancer, HIV, AIDS, neurodegenerative disorders, diabetes, auto-immune and other immune dysfunctions and viral diseases. The centralized procedure is optional for products containing a new active substance not yet authorized in the European Union, or for products that constitute a significant therapeutic, scientific or technical innovation or which are in the interest of public health in the European Union. Manufacturers must demonstrate the quality, safety and efficacy of their products to the EMA. The CHMP provides an opinion regarding the MAA. The European Commission grants or refuses a marketing authorization in light of the opinion delivered by the EMA.

Under the centralized procedure, the CHMP is responsible for conducting an initial assessment of a product. The maximum timeframe for the evaluation of an MAA is 210 days, excluding clock stops when additional information or written or oral explanation is to be provided by the applicant in response to questions of the CHMP. Clock stops may extend the timeframe of evaluation of an MAA considerably beyond 210 days. Where the CHMP gives a positive opinion, the EMA provides the opinion together with supporting documentation to the European Commission, who makes the final decision to grant a marketing authorization, which is issued within 67 days of receipt of the EMA’s recommendation.

Accelerated evaluation may be granted by the CHMP in exceptional cases, when a medicinal product is of major interest from the point of view of public health and, in particular, from the viewpoint of therapeutic innovation. If the CHMP accepts such a request, the time limit of 210 days will be reduced to 150 days (excluding clock stops), but it is possible that the CHMP may revert to the standard time limit for the centralized procedure if it determines that it is no longer appropriate to conduct an accelerated assessment.

National marketing authorizations, which are issued by the competent authorities of the Member States of the European Union and only cover their respective territory, are available for products not falling within the mandatory scope of the centralized procedure. Where a product has already been authorized for marketing in a

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Member State of the European Union, this national authorization can be recognized in other Member States through the mutual recognition procedure. If the product has not received a national authorization in any Member State at the time of application, it can be approved simultaneously in various Member States through the decentralized procedure.

Now that the United Kingdom (which comprises Great Britain and Northern Ireland) has left the European Union, Great Britain is no longer covered by centralized marketing authorizations (under the Northern Irish Protocol, centralized marketing authorizations currently continue to be recognized in Northern Ireland). On January 1, 2024, a new International Recognition Procedure was put in place by the United Kingdom's medicines regulator, the Medicines and Healthcare products Regulatory Agency ("MHRA"), under which the MHRA may base a decision to grant a marketing authorization on the positive opinion of the EMA or the approval granted by certain other third country regulators. The MHRA also has the power to have regard to marketing authorizations approved in European Union Member States through decentralized or mutual recognition procedures with a view to more quickly granting a marketing authorization in the United Kingdom or Great Britain.

Regulatory data protection in the European Union

In the European Union, new chemical entities (including both small molecules and biological medicinal products) approved on the basis of a complete and independent data package, and existing chemical entities for which a previously non-existing therapeutic indication is sought, qualify for eight years of data exclusivity upon marketing authorization and an additional two years of market exclusivity pursuant to Regulation (EC) No 726/2004, as amended, and Directive 2001/83/EC, as amended. Data exclusivity, if granted, prevents generic or biosimilar applicants from referencing the innovator's preclinical and clinical trial data contained in the dossier of the reference product when applying for a generic or biosimilar marketing authorization, for a period of eight years from the date on which the reference product was first authorized in the European Union. During the additional two-year period of market exclusivity, a generic or biosimilar MAA can be submitted, and the innovator's data may be referenced, but no medicinal product can be marketed until the expiration of the market exclusivity. The overall ten-year period will be extended to a maximum of eleven years if, during the first eight years of those ten years, the marketing authorization holder obtains an authorization for one or more new therapeutic indications which, during the scientific evaluation prior to authorization, is held to bring a significant clinical benefit in comparison with existing therapies. Even if a compound is considered to be a new chemical entity so that the innovator gains the prescribed period of data exclusivity, another company may market another version of the product if such company obtained marketing authorization based on an MAA with a complete and independent data package of pharmaceutical tests, preclinical tests and clinical trials.

Patent term extensions in the European Union and other jurisdictions

The European Union also provides for patent term extension through supplementary protection certificates ("SPCs"). The rules and requirements for obtaining an SPC are similar to those in the United States. An SPC may extend the term of a patent for up to five years after its originally scheduled expiration date and can provide up to a maximum of fifteen years of marketing exclusivity for a product. In certain circumstances, the period of SPC protection may be extended for six additional months if pediatric exclusivity is obtained; and in the case of orphan medicinal products, a two-year extension of the orphan market exclusivity may be available. Although SPCs are available throughout the European Union, sponsors must apply on a country-by-country basis. Similar patent term extension rights exist in certain other foreign jurisdictions outside the European Union.

Periods of authorization and renewals

A marketing authorization is valid for five years, in principle, and it may be renewed indefinitely after five years on the basis of a re-evaluation of the risk-benefit balance by the EMA or by the competent authority of the

authorizing Member State. To that end, the marketing authorization holder must provide the EMA or the competent authority with a consolidated version of the Common Technical Document in respect of quality, safety and efficacy, including all variations introduced since the marketing authorization was granted, at least nine months before the marketing authorization ceases to be valid. Once renewed, the marketing authorization is valid for an unlimited period, unless the European Commission or the competent authority decides, on justified grounds relating to pharmacovigilance, to proceed with one additional five-year renewal period. Any authorization that is not followed by the placement of the product on the European Union market (in the case of the centralized procedure) or on the market of the authorizing Member State (in the case of a national procedure) within three years after authorization, or which is not placed on the market for a consecutive period of three years at any time during its authorization, ceases to be valid.

Regulatory requirements after marketing authorization

Following approval, the holder of the marketing authorization is required to comply with a range of requirements applicable to the manufacturing, marketing, promotion and sale of the medicinal product, and must adhere in strict compliance with the applicable European Union laws, regulations and guidance, including Directive 2001/83/EC, Directive (EU) 2017/157, Regulation (EC) No 726/2004 and the European Commission Guidelines for Good Manufacturing Practice. These include compliance with the European Union's stringent pharmacovigilance or safety reporting rules, pursuant to which post-authorization studies and additional monitoring obligations can be imposed. In addition, the manufacturing of authorized products, for which a separate manufacturer's license is mandatory, must also be conducted in strict compliance with the EMA's GMP requirements and comparable requirements of other regulatory bodies in the European Union, which mandate the methods, facilities and controls used in manufacturing, processing and packing of products to assure their safety and identity.

Much like the Anti-Kickback Statute prohibition in the United States, the provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order or use of medicinal products is also prohibited in the European Union. The provision of benefits or advantages to induce or reward improper performance generally is usually governed by the national anti-bribery laws of European Union Member States and the Bribery Act 2010 in the United Kingdom. Infringement of these laws could result in substantial fines and imprisonment. EU Directive 2001/83/EC, which is the EU Directive governing medicinal products for human use, further provides that, where medicinal products are being promoted to persons qualified to prescribe or supply them, no gifts, pecuniary advantages or benefits in kind may be supplied, offered or promised to such persons unless they are inexpensive and relevant to the practice of medicine or pharmacy. This provision has been transposed into the Human Medicines Regulations 2012 and so remains applicable in the United Kingdom despite its departure from the European Union.

Payments made to physicians in certain European Union Member States must be publicly disclosed. Moreover, agreements with physicians often must be the subject of prior notification and approval by the physician's employer, his or her competent professional organization and/or the regulatory authorities of the individual European Union Member States. These requirements are provided in the national laws, industry codes or professional codes of conduct, applicable in the European Union Member States. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

The advertising and promotion of medicinal products is also subject to laws concerning promotion of medicinal products, interactions with physicians, misleading and comparative advertising and unfair commercial practices. All advertising and promotional activities for the product must be consistent with the approved summary of product characteristics, and therefore all off-label promotion is prohibited. Direct-to-consumer advertising of prescription medicines is also prohibited in the European Union. Although general requirements

for advertising and promotion of medicinal products are established under European Union directives, the details are governed by regulations in each Member State and can differ from one country to another.

Orphan designation and exclusivity

Regulation (EC) No 141/2000 and Regulation (EC) No. 847/2000 provide that a product can be designated as an orphan product by the European Commission if its sponsor can establish that the product is intended for the diagnosis, prevention or treatment of a life-threatening or chronically debilitating condition, where either (i) such condition affects not more than five in ten thousand persons in the European Union when the application is made, or (ii) without incentives it is unlikely that the marketing of the product in the European Union would generate sufficient return to justify the necessary investment in its development. For either of these conditions, the applicant must demonstrate that there exists no satisfactory method of diagnosis, prevention or treatment of the condition in question that has been authorized in the European Union or, if such method exists, the product will be of significant benefit to those affected by that condition.

An orphan designation provides a number of benefits, including fee reductions, regulatory assistance and the possibility to apply for a centralized marketing authorization. Marketing authorization for an orphan product leads to a ten-year period of market exclusivity being granted following marketing approval of the orphan product. During this market exclusivity period, the EMA, the European Commission or the European Union Member States may only grant a marketing authorization to a “similar medicinal product” for the same therapeutic indication as an authorized orphan product if: (i) a second applicant can establish that its product, although similar to the authorized orphan product, is safer, more effective or otherwise clinically superior; (ii) the marketing authorization holder for the authorized orphan product consents to a second orphan medicinal product application; or (iii) the marketing authorization holder for the authorized orphan product cannot supply enough orphan medicinal product. A “similar medicinal product” is defined as a medicinal product containing a similar active substance or substances as contained in an authorized orphan medicinal product, and which is intended for the same therapeutic indication. The market exclusivity period for the authorized therapeutic indication may, however, be reduced to six years if, at the end of the fifth year, it is established that the product no longer meets the criteria for orphan designation, including if the product is sufficiently profitable not to justify market exclusivity. Orphan designation must be requested before submitting an application for marketing approval. Orphan designation does not convey any advantage in, or shorten the duration of, the regulatory review and approval process.

The aforementioned European Union rules are applicable in the EFTA Pillar of the EEA (Iceland, Liechtenstein and Norway).

Reform of the regulatory framework in the European Union

The European Commission introduced legislative proposals in April 2023 that, if implemented, will replace the current regulatory framework in the European Union for all medicines (including those for rare diseases and for children). The European Commission has provided the legislative proposals to the European Parliament and the European Council for their review and approval and, in April 2024, the European Parliament proposed amendments to the legislative proposals. Once the European Commission’s legislative proposals are approved (with or without amendment), they will be adopted into European Union law.

Brexit and the regulatory framework in the United Kingdom

The United Kingdom formally left the European Union on January 31, 2020, and the European Union and the United Kingdom have concluded a trade and cooperation agreement (“TCA”) which was provisionally applicable

since January 1, 2021 and has been formally applicable since May 1, 2021. The TCA includes specific provisions concerning pharmaceuticals, which include the mutual recognition of GMP, inspections of manufacturing facilities for medicinal products and GMP documents issued, but does not provide for wholesale mutual recognition of United Kingdom and European Union pharmaceutical regulations. At present, Great Britain has implemented European Union legislation on the marketing, promotion and sale of medicinal products through the Human Medicines Regulations 2012 (as amended) (under the Northern Ireland Protocol, the European Union regulatory framework currently continues to apply in Northern Ireland). The regulatory regime in Great Britain therefore aligns in many ways with current European Union regulations, however it is likely that these regimes will diverge significantly in the future now that Great Britain's regulatory system is independent from the European Union and the TCA does not provide for mutual recognition of United Kingdom and European Union pharmaceutical legislation. However, notwithstanding that there is no wholesale recognition of European Union pharmaceutical legislation under the TCA, under a new international recognition procedure which was put in place by the MHRA on January 1, 2024, the MHRA may take into account decisions on the approval of a marketing authorization from the EMA (and certain other regulators) when considering an application for a Great Britain marketing authorization.

On February 27, 2023, the U.K. government and the European Commission announced a political agreement in principle to replace the Northern Ireland Protocol with a new set of arrangements, known as the "Windsor Framework". This new framework fundamentally changes the existing system under the Northern Ireland Protocol, including with respect to the regulation of medicinal products in the United Kingdom. In particular, the MHRA will be responsible for approving all medicinal products destined for the U.K. market (*i.e.*, Great Britain and Northern Ireland), and the EMA will no longer have any role in approving medicinal products destined for Northern Ireland. A single UK-wide marketing authorization will be granted by the MHRA for all medicinal products to be sold in the UK, enabling products to be sold in a single pack and under a single authorization throughout the UK. The Windsor Framework was approved by the EU-UK Joint Committee on March 24, 2023, so the UK government and the European Union will enact legislative measures to bring it into law. On June 9, 2023, the MHRA announced that the medicines aspects of the Windsor Framework will apply from January 1, 2025.

Coverage and reimbursement

In the United States and markets in other countries, patients generally rely on third-party payors to reimburse all or part of the costs associated with their treatment. Adequate coverage and reimbursement from governmental healthcare programs, such as Medicare and Medicaid, and commercial payors is critical to new product acceptance. Our ability to successfully commercialize verketug and any potential future product candidates will depend in part on the extent to which coverage and adequate reimbursement for these products and related treatments will be available from government health administration authorities, private health insurers and other organizations. Even if coverage is provided, the approved reimbursement amount may not be high enough to allow us to establish or maintain pricing sufficient to realize a sufficient return on our investment. Government authorities and third-party payors, such as private health insurers and health maintenance organizations, decide which medications they will pay for and establish reimbursement levels.

There is also significant uncertainty related to the insurance coverage and reimbursement of newly approved products and coverage may be more limited than the purposes for which the medicine is approved by the FDA or comparable foreign regulatory authorities. In the United States, the principal decisions about reimbursement for new medicines are typically made by the Centers for Medicare & Medicaid Services ("CMS"), an agency within the HHS. CMS decides whether and to what extent a new medicine will be covered and reimbursed under Medicare and private payors tend to follow CMS to a substantial degree.

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Factors payors consider in determining reimbursement are based on whether the product is:

- a covered benefit under its health plan;
- safe, effective and medically necessary;
- appropriate for the specific patient;
- cost-effective; and
- neither experimental nor investigational.

Further, net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of drugs from countries where they may be sold at lower prices than in the United States. 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. We cannot be sure that reimbursement will be available for any product candidate that we commercialize and, if reimbursement is available, the level of reimbursement. In addition, many pharmaceutical manufacturers must calculate and report certain price reporting metrics to the government, such as average sales price (“ASP”) and best price. Penalties may apply in some cases when such metrics are not submitted accurately and timely. Further, these prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs.

In some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. 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. To obtain reimbursement or pricing approval, some of these countries may require the completion of clinical trials that compare the cost effectiveness of a particular product candidate to currently available therapies. 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. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for verekitug and any potential future product candidates. Historically, products launched in the European Union do not follow price structures of the U.S. and generally prices tend to be significantly lower.

Other healthcare laws

Pharmaceutical companies are subject to additional healthcare regulation and enforcement by the federal government and by authorities in the states and foreign jurisdictions in which they conduct their business that may constrain the financial arrangements and relationships through which we research, as well as sell, market and distribute any products for which we obtain marketing authorization. Such laws include, without limitation:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, receiving, offering or paying any remuneration (including any kickback, bribe or rebate), directly or indirectly, overtly or covertly, in cash or in kind, to induce, or in return for, 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 a federal healthcare program, such as the Medicare and Medicaid programs. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it to have committed a violation. Violations are subject to civil and criminal fines and penalties for each violation, plus up to three times the remuneration involved, imprisonment, and exclusion from government healthcare programs. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act or federal civil monetary penalties;

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- the federal civil and criminal false claims laws and civil monetary penalty laws, such as the federal False Claims Act, which impose criminal and civil penalties and authorize civil whistleblower or qui tam actions, against individuals or entities for, among other things: knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent; knowingly making, using or causing to be made or used, a false statement of record material to a false or fraudulent claim or obligation to pay or transmit money or property to the federal government or knowingly concealing or knowingly and improperly avoiding or decreasing an obligation to pay money to the federal government. Manufacturers can be held liable under the federal False Claims Act 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 federal False Claims Act also permits a private individual acting as a “whistleblower” to bring actions on behalf of the federal government alleging violations of the federal False Claims Act and to share in any monetary recovery;
- HIPAA, which created new federal criminal statutes that prohibit a person from knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program or obtain, by means of false or fraudulent pretenses, representations or promises, any of the money or property owned by, or under the custody or control of, any healthcare benefit program, regardless of the payor (e.g., public or private) and knowingly and willfully falsifying, concealing or covering up by any trick or device a material fact or making any materially false, fictitious, or fraudulent statements or representations in connection with the delivery of, or payment for, healthcare benefits, items or services relating to healthcare matters; similar to the federal Anti-Kickback Statute, 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 U.S. Physician Payments Sunshine Act 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, with specific exceptions, to report annually to CMS information related to certain payments and other transfers of value to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors), certain other licensed health care practitioners and teaching hospitals, as well as ownership and investment interests held by the physicians described above and their immediate family members;
- federal government price reporting laws, which require us to calculate and report complex pricing metrics in an accurate and timely manner to government programs; and
- federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm customers.

Additionally, we are subject to state and foreign equivalents of each of the healthcare laws and regulations described above, among others, some of which may be broader in scope and may apply regardless of the payor. Many U.S. states have adopted laws similar to the federal Anti-Kickback Statute and False Claims Act, and may apply to our business practices, including, but not limited to, research, distribution, sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental payors, including private insurers. In addition, some states have passed laws that require pharmaceutical companies to comply with the April 2003 Office of Inspector General Compliance Program Guidance for Pharmaceutical Manufacturers and/or the Pharmaceutical Research and Manufacturers of America’s Code on Interactions with Healthcare Professionals. Several states also impose other marketing restrictions or require pharmaceutical companies to make marketing or price disclosures to the state and require the registration of pharmaceutical sales representatives. There are ambiguities as to what is required to comply with these state requirements and if we fail to comply with an applicable state law requirement we could be subject to penalties.

Finally, there are state and foreign laws, including for example the European Union General Data Protection Regulation, which became effective May 2018, governing the privacy and security of health information, many

of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. If our operations are found to be in violation of any of such laws or any other governmental regulations that apply, we may be subject to penalties, including, without limitation, administrative, civil and criminal penalties, damages, fines, disgorgement, the curtailment or restructuring of operations, integrity oversight and reporting obligations, exclusion from participation in federal and state healthcare programs and responsible individuals may be subject to imprisonment.

Healthcare reform

Payors, whether domestic or foreign, or governmental or private, are developing increasingly sophisticated methods of controlling healthcare costs and those methods are not always specifically adapted for new technologies such as gene therapy and therapies addressing rare diseases such as those we are developing. In both the United States and certain foreign jurisdictions, there have been a number of legislative and regulatory changes to the health care system that could impact our ability to sell our products profitably. For example, in the United States, in 2010 the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010 (collectively, the “ACA”), was enacted, which, among other things, subjected biologic products to potential competition by lower-cost biosimilars; increased the minimum Medicaid rebates owed by most manufacturers under the Medicaid Drug Rebate Program; extended the Medicaid Drug Rebate program to utilization of prescriptions of individuals enrolled in Medicaid managed care organizations; subjected manufacturers to new annual fees and taxes for certain branded prescription drugs; created a Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 70% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for the manufacturer’s outpatient drugs to be covered under Medicare Part D; and provided incentives to programs that increase the federal government’s comparative effectiveness research.

Other legislative changes have been proposed and adopted in the United States since the ACA was enacted:

- The Budget Control Act of 2011 and subsequent legislation, among other things, created measures for spending reductions by Congress that include aggregate reductions of Medicare payments to providers of 2% per fiscal year, which remain in effect through 2032. The U.S. American Taxpayer Relief Act of 2012 further reduced Medicare payments to several types of providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.
- On April 13, 2017, CMS, an agency within the HHS, published a final rule that gives states greater flexibility in setting benchmarks for insurers in the individual and small group marketplaces, which may have the effect of relaxing the essential health benefits required under the ACA for plans sold through such marketplaces.
- On March 11, 2021, President Biden signed the American Rescue Plan Act of 2021 into law, which eliminates the statutory Medicaid drug rebate cap, previously set at 100% of a drug’s average manufacturer price, for single source and innovator multiple source drugs, effective January 1, 2024. Due to the Statutory Pay-As-You-Go Act of 2010, estimated budget deficit increases resulting from the American Rescue Plan Act of 2021, and subsequent legislation, Medicare payments to providers will be further reduced starting in 2025 absent further legislation.

These laws and regulations may result in additional reductions in Medicare and other healthcare funding and otherwise affect the prices we may obtain for verekitug and any potential future product candidates for which we may obtain regulatory approval or the frequency with which verekitug or any potential future product candidates is prescribed or used.

Additionally, there has been increasing legislative and enforcement interest in the U.S. with respect to drug pricing practices. Specifically, there has been heightened governmental scrutiny over the manner in which

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manufacturers set prices for their marketed products, which has resulted in several U.S. Congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to drug pricing, reduce the cost of prescription drugs under Medicare, and review the relationship between pricing and manufacturer patient programs.

In August 2022, the Inflation Reduction Act of 2022 (the "IRA") was signed into law. The IRA includes several provisions that may impact our business, depending on how various aspects of the IRA are implemented. Provisions that may impact our business include a \$2,000 out-of-pocket cap for Medicare Part D beneficiaries, the imposition of new manufacturer financial liability on most drugs in Medicare Part D, permitting the U.S. government to negotiate Medicare Part B and Part D pricing for certain high-cost drugs and biologics without generic or biosimilar competition, requiring companies to pay rebates to Medicare for drug prices that increase faster than inflation, and delay until January 1, 2032 the implementation of the HHS rebate rule that would have limited the fees that pharmacy benefit managers can charge. Further, under the IRA, orphan drugs are exempted from the Medicare drug price negotiation program, but only if they have one orphan designation and for which the only approved indication is for that disease or condition. If a product receives multiple orphan designations or has multiple approved indications, it may not qualify for the orphan drug exemption. The implementation of the IRA is currently subject to ongoing litigation challenging the constitutionality of the IRA's Medicare drug price negotiation program. The effects of the IRA on our business and the healthcare industry in general is not yet known.

In addition, President Biden has issued multiple executive orders that have sought to reduce prescription drug costs. Although a number of these and other proposed measures may require authorization through additional legislation to become effective, and the Biden administration may reverse or otherwise change these measures, both the Biden administration and Congress have indicated that they will continue to seek new legislative measures to control drug costs.

Individual states in the United States have also become increasingly active in passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain drug access and marketing cost disclosure and transparency measures, and designed to encourage importation from other countries and bulk purchasing. Legally mandated price controls on payment amounts by third-party payors or other restrictions could harm our business, financial condition, results of operations and prospects. In addition, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other healthcare programs.

Employees and human capital resources

As of June 1, 2024, we had 35 full-time employees and four full-time consultants, and 13 of our employees have M.D. or Ph.D. degrees. Within our workforce, 22 employees are engaged in research and development and 13 are engaged in business development, finance, legal, and general management and administration. Our human capital resources objectives include identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants. None of our employees are represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

Facilities

Our corporate headquarters is located in Waltham, Massachusetts, where we lease and occupy 8,146 square feet of office space. The initial term of this lease expired on June 30, 2023, with an option to continue thereafter on a month to month basis unless terminated by either party upon written notice. We also sublease an

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additional 3,405 square feet of office space at our corporate headquarters. The term of the sublease will expire on June 30, 2024, with an option to continue thereafter on a month to month basis unless terminated by either party upon written notice.

To meet the future needs of our business, we plan to lease additional or alternate space, and we believe suitable additional or alternative space will be available to us on commercially reasonable terms.

Legal proceedings

From time to time, we may become involved in litigation or other legal proceedings. We are not currently a party to any litigation or legal proceedings that, in the opinion of our management, are probable to have a material adverse effect on our business. Regardless of outcome, litigation can have an adverse impact on our business, financial condition, results of operations and prospects because of defense and settlement costs, diversion of management resources and other factors.

Management

Executive officers and directors

The following table sets forth the name, age and position of each of our executive officers and directors as of June 1, 2024:

Name	Age	Position(s)
Executive officers and employee director		
E. Rand Sutherland, M.D., M.P.H.	54	Chief Executive Officer and Director
Michael Paul Gray, M.B.A.	53	Chief Financial and Operating Officer
Aaron Deykin, M.D.	58	Chief Medical Officer and Head of Research and Development
Adam Houghton, Ph.D., M.B.A.	54	Chief Business Officer
Non-employee directors		
Ronald C. Renaud, Jr., M.B.A.	55	Chairman of the Board
Erez Chimovits, M.B.A.	60	Director
H. Edward Fleming, Jr., M.D.	61	Director
Dayton Misfeldt	50	Director
Liam Ratcliffe, M.B.Ch.B., Ph.D.	60	Director
Marcella Kuhlman Ruddy, M.D., M.S.	62	Director
Atsushi Sugita, M.B.A.	49	Director
Andy Wardle, M.B.Ch.B., M.B.A.	35	Director

(1) Member of the compensation committee.

(2) Member of the nominating and corporate governance committee.

(3) Member of the audit committee.

Executive officers and employee director

E. Rand Sutherland, M.D., M.P.H. Dr. Sutherland has served as our Chief Executive Officer and a member of our board of directors since April 2024. From May 2022 until June 2023, Dr. Sutherland served as Chief Executive Officer of Seeker Biologics Inc., a privately held biotechnology company. Dr. Sutherland served as President of Translate Bio, Inc. ("Translate Bio"), from March 2021 until the company's acquisition in September 2021. From February 2014 to March 2021, Dr. Sutherland served in various research and development and medical affairs roles at Sanofi, most recently as Senior Vice President and Global Head of Medical Affairs for Sanofi Genzyme from July 2018 to March 2021. Previously, Dr. Sutherland was Professor of Medicine at the University of Colorado and Chief of Pulmonary and Critical Care Medicine at National Jewish Health in Denver, where he treated patients and led an NIH-funded translational research program in severe asthma. Dr. Sutherland has served as a director of Krystal Biotech, Inc. since January 2022. He previously served on the board of directors of Allakos Inc. from August 2023 until May 2024. Dr. Sutherland holds a B.A. from Oberlin College, an M.P.H. from the Harvard School of Public Health and an M.D. from the University of Chicago. Dr. Sutherland completed his post-doctoral training in Internal Medicine at the University of California, San Francisco, where he also served as Chief Medical Resident, followed by a fellowship in Pulmonary and Critical Care Medicine at the

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University of Colorado. We believe Dr. Sutherland is qualified to serve as a member of our board of directors because of his scientific and professional background, and his familiarity with our Company as Chief Executive Officer.

Michael Paul Gray, M.B.A. Mr. Gray has served as our Chief Financial Officer and Chief Operating Officer since March 2024. Mr. Gray was Chief Financial Officer and Chief Operating Officer of Carmot Therapeutics, Inc. from June 2023 until February 2024. Mr. Gray was Chief Financial Officer and Chief Operating Officer of Imara, Inc. from April 2019 until March 2023 and Chief Financial Officer and Chief Operating Officer of Arsanis, Inc. from March 2016 until March 2022. Prior to this, Mr. Gray held a number of leadership positions at Curis, Inc., including most recently as Chief Financial Officer and Chief Business Officer from February 2013 until February 2016. Mr. Gray previously served on the board of directors of Therapeutics Acquisition Corporation, from May 2020 until its merger in July 2021. He received his B.S. in business administration (accounting) from Bryant College and an M.B.A. in corporate finance and entrepreneurial management from the F.W. Olin Graduate School of Business at Babson College.

Aaron Deykin, M.D. Dr. Deykin has served as our Chief Medical Officer and Head of Research and Development since April 2022. From March 2020 until April 2022, Dr. Deykin was Senior Vice President of Clinical Sciences overseeing Biostatistics, Statistical Programming, Biomarkers, Clinical Pharmacology, Epidemiology, and Clinical Operations for Biogen, Inc.'s ("Biogen") pipeline globally. Prior to this, Dr. Deykin was a member of the faculty of Medicine at Harvard Medical School and a member of the Pulmonary and Critical Care faculty at Brigham and Women's Hospital from September 1999 until March 2010. In that capacity, he treated patients with asthma and other advanced respiratory diseases while leading the medical activities of the Lung Transplantation Program, directing the Pulmonary Function Testing Laboratory and serving as the Associate Director of the Asthma Research Center. Dr. Deykin has been awarded board certification in Internal Medicine, Pulmonary Disease, and Critical Care Medicine, and holds an M.D. from Harvard Medical School and an A.B. from Dartmouth College.

Adam Houghton, Ph.D., M.B.A. Dr. Houghton has served as our Chief Business Officer since October 2021. From March 2019 until September 2021, Dr. Houghton was Vice President, Corporate Strategy, and Head of AbbVie Ventures, AbbVie Inc.'s corporate venture investment group and served as Senior Director and Head, Immunology Search and Evaluation from February 2015 until March 2019. Prior to this, Dr. Houghton was Senior Director and Head of Search and Evaluation at Biogen from July 2017 until February 2018. From November 2013 until February 2015, Dr. Houghton was Senior Director, Global External Research and Development, BioMedicines and Tailored Therapeutics at Eli Lilly and Company. Prior to this, Dr. Houghton was Section Head, Bone and Inflammation Drug Discovery at Procter & Gamble Pharmaceuticals from April 2000 until July 2005 and Research Assistant at Zeneca (now AstraZeneca) from October 1988 until September 1994. Dr. Houghton received a B.S. from Manchester Metropolitan University, a Ph.D. in Cell and Molecular Biology from the University of Sheffield, performed post-doctoral research at Yale School of Medicine and received an M.B.A. from Xavier University.

Non-employee directors

Ronald C. Renaud, Jr., M.B.A. Mr. Renaud is Chair of our board of directors and has been a member of our board of directors since November 2021. Since June 2023, Mr. Renaud has served as President and Chief Executive Officer and a member of the board of directors of Cerevel Therapeutics Holdings, Inc. Prior to this, Mr. Renaud was a partner at Bain Capital Life Sciences from September 2022 through June 2023. Prior to this, he served as Chair and Chief Executive Officer of Translate Bio from 2014 until the close of its acquisition by Sanofi in September 2021. Prior to this, Mr. Renaud was at Idenix Pharmaceuticals, Inc. from 2007 through 2014, where he served as Chief Financial Officer, Chief Business Officer and, finally, President and Chief

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Executive Officer at the time of its acquisition by Merck & Company, Inc. (“Merck”). Prior to this, Mr. Renaud was a biotechnology equity research analyst at J.P. Morgan, Schwab Soundview and Bear Stearns from January 2000 until February 2006. Mr. Renaud also served in various positions at Amgen Inc. from April 1994 until December 1999. Mr. Renaud previously served on the boards of Atara Biotherapeutics, Inc. from April 2020 until December 2022, Ikena Oncology, Inc. from March 2018 until December 2022, Chimerix, Inc. from December 2014 until November 2021, and Akebia Therapeutics, Inc. from September 2014 until December 2018. Mr. Renaud holds a B.A. from St. Anselm College and an M.B.A. from the Marshall School of Business at the University of Southern California. We believe Mr. Renaud is qualified to serve on our board of directors because of his leadership and management experience and his extensive knowledge of the biopharmaceutical industry.

Erez Chimovits, M.B.A. Mr. Chimovits has been a member of our board of directors since October 2021. Mr. Chimovits is a Partner at OrbiMed, an investment firm, where he has served in various roles of increasing responsibility since November 2010. Mr. Chimovits previously served on the boards of directors of Adicet Bio, Inc. from January 2016 until March 2021, BiomX, Inc. from December 2015 until October 2020, LogicBio Therapeutics, Inc. from January 2016 until December 2020, and Novus Therapeutics, Inc. (now Eledon Pharmaceuticals, Inc) from June 2017 until September 2020. Mr. Chimovits served as Chief Executive Officer of NasVax Ltd. (now SciSparc Ltd.) from January 2007 to November 2010. Previously, Mr. Chimovits served as President of Compugen USA Inc., a subsidiary of Compugen Ltd., from January 2001 to January 2007, and as Executive Vice President in Commercial Operations from December 1999 to January 2007. Mr. Chimovits earned his M.B.A., M.Sc. in Microbiology, and B.Sc. from Tel Aviv University. We believe Mr. Chimovits is qualified to serve as a member of our board of directors because of his professional background in the biopharmaceutical industry.

H. Edward Fleming, Jr., M.D. Dr. Fleming has served on our board of directors since June 2023. Since November 2022, Dr. Fleming has served as the Executive Vice President of Enavate Sciences where he works closely to invest in and build therapeutic companies. From January 1997 until August 2022, Dr. Fleming held multiple positions at McKinsey & Company (“McKinsey”), most recently as Senior Partner and global leader of McKinsey’s research and development practice. Dr. Fleming has served on the board of directors of CRISPR Therapeutics AG since June 2021. Dr. Fleming earned his B.A. in Chemistry from Harvard University, his M.D. from Vanderbilt University, and completed internal medicine training at Johns Hopkins Hospital and subspecialty training in Pulmonary and Critical Care Medicine at the University of California, San Francisco. We believe Dr. Fleming is qualified to serve on our board of directors because of his experience in the healthcare industry, including working closely with biopharmaceutical companies on strategy, operational performance and research and development innovation.

Dayton Misfeldt. Mr. Misfeldt has served on our board of directors since October 2021. Since January 2021, Mr. Misfeldt has served as a Partner at Decheng Capital, an investment firm, and focuses on biopharmaceutical investment opportunities. Previously, Mr. Misfeldt was Managing Director at Bay City Capital, a venture capital firm he worked at from May 2000 to December 2020. Mr. Misfeldt previously served as a member of the board of directors of Sunesis Pharmaceuticals, Inc. (“Sunesis”) from April 2009 until December 2020 and as Sunesis’ interim Chief Executive Officer from January 2018 until December 2020. Before joining Bay City Capital, Mr. Misfeldt was a Vice President at Roth Capital Partners, where he worked as a sell-side analyst covering the biopharmaceutical industry from October 1997 until April 2000. Mr. Misfeldt received a B.A. in Economics from the University of California, San Diego. We believe that Mr. Misfeldt is qualified to serve as a member of our board of directors because of his venture capital experience in the biopharmaceutical industry.

Liam Ratcliffe, M.B.Ch.B., Ph.D. Dr. Ratcliffe has served as a member of our board of directors since October 2021. Since April 2019, Dr. Ratcliffe has served as Head of Biotechnology at Access Industries, a privately held industrial group. From September 2008 until March 2019, Dr. Ratcliffe held various positions at New Leaf Venture Partners, most recently as Managing Director. From January 1997 until August 2008, Dr. Ratcliffe was

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Worldwide Head of Clinical Research and Development at Pfizer Inc. Dr. Ratcliffe has served as a member of the boards of directors of Disc Medicine, Inc. since September 2019 and Eliem Therapeutics, Inc. since October 2019. Previously, Dr. Ratcliffe served as a member of the boards of directors of Arvinas, Inc. from October 2015 until August 2022, Passage Bio, Inc. from September 2019 until March 2022, Unum Therapeutics, Inc. from March 2018 until April 2019, Deciphera Pharmaceuticals, Inc. from September 2017 until March 2019, Aptinyx, Inc. from June 2018 until April 2019 and Edge Therapeutics, Inc. (now PDS Biotechnology Corp.) from October 2015 until November 2018. Dr. Ratcliffe received an M.B.Ch.B. and a Ph.D. in immunology from University of Cape Town and an M.B.A. from the University of Michigan. We believe Dr. Ratcliffe is qualified to serve as a member of our board of directors because of his extensive clinical development and venture capital experience in the life sciences industry.

Marcella Kuhlman Ruddy, M.D., M.S. Dr. Ruddy has served on our board of directors since January 2023. Since July 2021, Dr. Ruddy has served as Chief Medical Officer at Tectonic Therapeutic, Inc. From June 2016 until June 2021, Dr. Ruddy was at Regeneron Pharmaceuticals, Inc. where she was the Head of Clinical Development for the Immunology/Inflammation Therapeutic Area. Previously, Dr. Ruddy held positions of increasing responsibility, including Head of Early Clinical Development for Immunology, from November 2004 until June of 2014 at Merck. From November 2015 until June 2016, Dr. Ruddy served as Vice President, Clinical Development and Head of Pharmacovigilance at Alnylam Pharmaceuticals, Inc. From June 2014 until November 2014, Dr. Ruddy served as Vice President of Clinical Immunology at EMD Serono, Inc., Merck's healthcare business. From June 1996 until October 2004, Dr. Ruddy held a staff position in the Pulmonary Unit at Massachusetts General Hospital/Harvard Medical School where she founded and directed the Adult Cystic Fibrosis Program. Dr. Ruddy holds an A.B. from Princeton University and a M.D. and M.S. from Washington University, St. Louis and completed her Internal Medicine and Pulmonary fellowship training at Harvard Medical School affiliated hospitals. We believe Dr. Ruddy is qualified to serve as a member of our board of directors because of her extensive experience in both drug development and the biopharmaceutical industry.

Atsushi Sugita, M.B.A. Mr. Sugita has served on our board of directors since December 2021. Since December 2020, Mr. Sugita has served as President and Chief Executive Officer of Maruho Co., Ltd. ("Maruho"), a privately held Japanese pharmaceutical company. Mr. Sugita has served on the board of directors of Maruho since December 2014 and as Executive Vice President from January 2020 until December 2020. From December 2016 until October 2018, Mr. Sugita served as Maruho's Senior Corporate Officer in charge of Global Strategy and Business Development, Finance and Accounting, and Human Resources and from October 2018 until January 2020, he served as Executive Corporate Officer of Business Operations & Administration. From July 2005 until February 2012, Mr. Sugita was employed by Janssen Pharmaceutical K.K. in Japan in managerial positions in corporate planning and marketing, and was dispatched to Johnson & Johnson in the U.S. from September 2008 until August 2009. Mr. Sugita has a bachelor's degree in economics from Kyoto University and an M.B.A. from the Kellogg School of Management at Northwestern University. We believe Mr. Sugita is qualified to serve as a member of our board of directors because of his experience serving as an officer of a pharmaceutical company.

Andy Wardle, M.B.Ch.B., M.B.A. Dr. Wardle has served as a member of our board of directors since December 2023. Since September 2021, Dr. Wardle has served as an investor in late-stage biotechnology at Venrock. From January 2019 until August 2021, Dr. Wardle served as director of clinical development at Mirum Pharmaceuticals, Inc. From August 2015 until May 2017, Dr. Wardle served as senior associate in the healthcare practice at Boston Consulting Group (London). From August 2013 until July 2015, Dr. Wardle was a practicing physician in London at Hammersmith Hospital. Dr. Wardle has an M.B.Ch.B. and B.S. from the University of Bristol and an M.B.A. from Stanford Graduate School of Business. We believe Dr. Wardle is qualified to serve as a member of our board of directors because of his investment experience in biotechnology.

Composition of our board of directors

Our board consists of nine members, each of whom are members pursuant to the board composition provisions of our second amended and restated certificate of incorporation and agreements with our stockholders. These board composition provisions will terminate upon the completion of this offering. Upon the termination of these provisions, there will be no further contractual obligations regarding the election of our directors. Our nominating and corporate governance committee and our board of directors may therefore consider a broad range of factors relating to the qualifications and background of nominees. Our nominating and corporate governance committee's and our board of directors' priority in selecting board members is identification of persons who will further the interests of our stockholders through their established record of professional accomplishment, the ability to contribute positively to the collaborative culture among board members, knowledge of our business, understanding of the competitive landscape, professional and personal experiences, and expertise relevant to our growth strategy. Our directors hold office until their successors have been elected and qualified or until the earlier of their resignation or removal. Our third amended and restated certificate of incorporation, which will become effective immediately prior to the completion of this offering, and second amended and restated bylaws, which will become effective upon effectiveness of the registration statement of which this prospectus forms a part, also provide that our directors may be removed only for cause by the affirmative vote of the holders of at least two-thirds of the votes that all our stockholders would be entitled to cast in an annual election of directors, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

Director independence

Our board of directors has determined that all members of the board of directors, except Dr. Sutherland, our Chief Executive Officer, are independent directors, including for purposes of the rules of the Nasdaq Global Market ("Nasdaq") and the Securities and Exchange Commission ("SEC"). In making such independence determination, our board of directors considered the relationships that each non-employee director has with us and all other facts and circumstances that our board of directors deemed relevant in determining their independence, including the beneficial ownership of our capital stock by each non-employee director. In considering the independence of the directors listed above, our board of directors considered the association of our directors with the holders of more than 5% of our common stock. Upon the completion of this offering, we expect that the composition and functioning of our board of directors and each of our committees will comply with all applicable requirements of the Nasdaq Global Market and the rules and regulations of the SEC. Dr. Sutherland is not an independent director under these rules because he is the Chief Executive Officer of the Company.

Family relationships

There are no family relationships among any of our executive officers or directors.

Staggered board

In accordance with the terms of our third amended and restated certificate of incorporation to be in effect immediately prior to the completion of this offering and second amended and restated bylaws to be in effect upon effectiveness of the registration statement of which this prospectus forms a part, our board of directors will be divided into three staggered classes of directors and each will be assigned to one of the three classes. At each annual meeting of the stockholders, a class of directors will be elected for a three-year term to succeed

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the directors of the same class whose terms are then expiring. The terms of the directors will expire upon the election and qualification of successor directors at the annual meeting of stockholders to be held during the years _____ for Class I directors, _____ for Class II directors and _____ for Class III directors.

- Our Class I directors will be _____, _____ and _____.
- Our Class II directors will be _____, _____ and _____.
- Our Class III directors will be _____, _____ and _____.

Our third amended and restated certificate of incorporation, which will become effective immediately prior to the completion of this offering, and second amended and restated bylaws, which will become effective upon effectiveness of the registration statement of which this prospectus forms a part, provide that the number of our directors shall be fixed from time to time by a resolution of the majority of our board of directors.

The division of our board of directors into three classes with staggered three-year terms may delay or prevent stockholder efforts to effect a change of our management or a change in control.

Board leadership structure

Currently, the role of chairperson of the board of directors is separated from the role of Chief Executive Officer. Our Chief Executive Officer is responsible for recommending strategic decisions and capital allocation to the board of directors and to ensure the execution of the recommended plans. The chairperson of the board of directors is responsible for leading the board of directors in its fundamental role of providing advice to and independent oversight of management. Our board of directors recognizes the time, effort and energy that the Chief Executive Officer is required to devote to his position in the current business environment, as well as the commitment required to serve as our chairperson, particularly as the board of directors' oversight responsibilities continue to grow. While our second amended and restated bylaws and corporate governance guidelines will not require that our chairperson and Chief Executive Officer positions be separate, our board of directors believes that having separate positions is the appropriate leadership structure for us at this time and demonstrates our commitment to good corporate governance.

Role of the board in risk oversight

Risk is inherent with every business, and how well a business manages risk can ultimately determine its success. We face a number of risks, including the risks relating to our financial condition, development and commercialization activities, operations, strategic direction, and intellectual property as more fully discussed in the section titled "Risk factors" appearing elsewhere in this prospectus. Management is responsible for the day-to-day management of risks we face, while our board of directors, as a whole and through its committees, has responsibility for the oversight of risk management. In its risk oversight role, our board of directors has the responsibility to satisfy itself that the risk management processes designed and implemented by management are adequate and functioning as designed.

The role of the board of directors in overseeing the management of our risks is conducted primarily through committees of the board of directors, as disclosed in the descriptions of each of the committees below and in the charters of each of the committees. The full board of directors (or the appropriate board committee in the case of risks that are under the purview of a particular committee) discusses with management our major risk exposures, their potential impact on us, and the steps we take to manage them. When a board committee is responsible for evaluating and overseeing the management of a particular risk or risks, the chairperson of the relevant committee reports on the discussion to the full board of directors during the committee reports portion of the next board meeting. This enables the board of directors and its committees to coordinate the risk oversight role, particularly with respect to risk interrelationships.

Committees of our board of directors

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which will operate pursuant to a charter to be adopted by our board of directors that will be effective upon the effectiveness of the registration statement of which this prospectus is a part. The board of directors may also establish other committees from time to time to assist the Company and the board of directors. Upon the effectiveness of the registration statement of which this prospectus is a part, the composition and functioning of all of our committees will comply with all applicable requirements of the Sarbanes-Oxley Act of 2002, as amended (the "Sarbanes-Oxley Act"), Nasdaq and SEC rules and regulations, if applicable. Upon our listing on Nasdaq, each committee's charter will be available on our website at www.upstreambio.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Audit committee

, and serve on the audit committee, which is chaired by . Our board of directors has determined that each member of the audit committee is "independent" for audit committee purposes as that term is defined by the rules of the SEC and Nasdaq, and that each has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our board of directors has designated as an "audit committee financial expert," as defined under the applicable rules of the SEC. The audit committee's responsibilities include:

- appointing, approving the compensation of, and assessing the independence of our independent registered public accounting firm;
- pre-approving auditing and permissible non-audit services, and the terms of such services, to be provided by our independent registered public accounting firm;
- reviewing the overall audit plan with our independent registered public accounting firm and members of management responsible for preparing our financial statements;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures as well as critical accounting policies and practices used by us;
- coordinating the oversight and reviewing the adequacy of our internal control over financial reporting;
- establishing policies and procedures for the receipt and retention of accounting-related complaints and concerns;
- recommending, based upon the audit committee's review and discussions with management and our independent registered public accounting firm, whether our audited financial statements shall be included in our Annual Report on Form 10-K;
- monitoring the integrity of our financial statements and our compliance with legal and regulatory requirements as they relate to our financial statements and accounting matters;
- preparing the audit committee report required by SEC rules to be included in our annual proxy statement;
- reviewing all related person transactions for potential conflict of interest situations and approving all such transactions;

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- reviewing quarterly earnings releases; and
- reviewing our major risk exposures, including financial, operational, cybersecurity, competition, legal and regulatory exposures.

Compensation committee

, and serve on the compensation committee, which is chaired by . Our board of directors has determined that each member of the compensation committee is “independent” as defined in the Nasdaq listing standards. The compensation committee’s responsibilities include:

- annually reviewing and recommending to the board of directors the corporate goals and objectives relevant to the compensation of our Chief Executive Officer;
- evaluating the performance of our Chief Executive Officer in light of such corporate goals and objectives and based on such evaluation (i) reviewing and determining the cash compensation of our Chief Executive Officer, and (ii) reviewing and approving grants and awards to our Chief Executive Officer under equity-based plans;
- reviewing and approving the compensation of our other executive officers;
- developing and implementing compensation policies and plans;
- overseeing and administering our compensation and similar plans;
- evaluating and assessing potential and current compensation advisors in accordance with the independence standards identified in the applicable Nasdaq listing rules;
- retaining and approving the compensation of any compensation advisors;
- reviewing and approving our policies and procedures for the grant of equity-based awards;
- reviewing and recommending to the board of directors the compensation of our directors;
- preparing our compensation committee report if and when required by SEC rules;
- reviewing and discussing annually with management our Compensation Discussion and Analysis, if and when required, to be included in our annual proxy statement; and
- reviewing and approving the retention or termination of any consulting firm or outside advisor to assist in the evaluation of compensation matters.

Nominating and corporate governance committee

, and serve on the nominating and corporate governance committee, which is chaired by . Our board of directors has determined that each member of the nominating and corporate governance committee is “independent” as defined in the Nasdaq listing standards. The nominating and corporate governance committee’s responsibilities include:

- developing and recommending to the board of directors criteria for board and committee membership, including any specific qualities or skills, and reassessing such criteria on an ongoing basis;
- establishing procedures for identifying and evaluating board of director candidates, including nominees recommended by stockholders;
- identifying individuals qualified to become members of the board of directors;

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- recommending to the board of directors the persons to be nominated for election as directors and to each of the board's committees;
- developing and recommending to the board of directors a code of business conduct and ethics and a set of corporate governance guidelines;
- reviewing and discussing with the board of directors succession plans for our key officers; and
- overseeing the evaluation of our board of directors, its committees and management.

Compensation committee interlocks and insider participation

None of the members of our compensation committee is currently, or has at any time during the prior three years been, one of our officers or employees. 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 of any entity that has one or more executive officers serving on our board of directors or compensation committee.

Corporate governance

Prior to the effectiveness of the registration statement of which this prospectus is a part, we will adopt a written code of business conduct and ethics that applies to our directors, officers, and employees, including our principal executive officer, principal financial officer, principal accounting officer, or controller, or persons performing similar functions. Following the effectiveness of the registration statement of which this prospectus is a part, a current copy of this code will be posted on the Corporate Governance section of our website, which is located at www.upstreambio.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference. If we make any substantive amendments to, or grant any waivers from, the code of business conduct and ethics for any officer or director, we will disclose the nature of such amendment or waiver on our website or in a current report on Form 8-K.

Limitations on liability and indemnification agreements

As permitted by Delaware law, provisions in our third amended and restated certificate of incorporation, which will become effective immediately prior to the completion of this offering, and second amended and restated bylaws, which will become effective upon the effectiveness of this registration statement, limit or eliminate the personal liability of directors and officers for a breach of their fiduciary duty of care as a director or officer. The duty of care generally requires that, when acting on behalf of the corporation, a director and or officer exercise an informed business judgment based on all material information reasonably available to him or her. Consequently, a director or officer will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as a director or officer, except for liability for:

- any breach of the director or officer's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- for our directors, unlawful payments of dividends or unlawful stock repurchases, or redemptions as provided in Section 174 of the Delaware General Corporation Law ("DGCL");
- for our officers, any derivative action by or in the right of the corporation; or
- any transaction from which the director or officer derived an improper personal benefit.

These limitations of liability do not limit or eliminate our rights or any stockholder's rights to seek non-monetary relief, such as injunctive relief or rescission. These provisions will not alter a director or officer's

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liability under other laws, such as the federal securities laws or other state or federal laws. Our third amended and restated certificate of incorporation that will become effective upon the completion of this offering also authorizes us to indemnify our officers, directors and other agents to the fullest extent permitted under Delaware law.

As permitted by Delaware law, our second amended and restated bylaws to be effective immediately prior to the consummation of this offering will provide that:

- we will indemnify our directors, officers, employees and other agents to the fullest extent permitted by law;
- we must advance expenses to our directors and officers, and may advance expenses to our employees and other agents, in connection with a legal proceeding to the fullest extent permitted by law; and
- the rights provided in our second amended and restated bylaws are not exclusive.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director or officer, then the liability of our directors or officers will be so eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our second amended and restated bylaws will also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to us, regardless of whether our second amended and restated bylaws permit such indemnification. We have obtained such insurance.

In addition to the indemnification that will be provided for in our third amended and restated certificate of incorporation and second amended and restated bylaws, we plan to enter into separate indemnification agreements with each of our directors and executive officers, which may be broader than the specific indemnification provisions contained in the DGCL. These indemnification agreements may require us, among other things, to indemnify our directors and executive officers for some expenses, including attorneys' fees, expenses, judgments, fines and settlement amounts incurred by a director or executive officer in any action or proceeding arising out of his service as one of our directors or executive officers or any other company or enterprise to which the person provides services at our request. We believe that these provisions and agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

This description of the indemnification provisions of our third amended and restated certificate of incorporation, our second amended and restated bylaws and our indemnification agreements is qualified in its entirety by reference to these documents, each of which is attached as an exhibit to the registration statement of which this prospectus forms a part.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have 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.

There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

Compensation recovery

In connection with this offering, we intend to adopt a compensation recovery policy that applies to our officers. Under the Sarbanes-Oxley Act, in the event of misconduct that results in a financial restatement that would have reduced a previously paid incentive amount, we can recoup those improper payments from our chief executive officer and chief financial officer. The SEC also recently adopted rules which direct national stock exchanges to require listed companies to implement policies intended to recoup bonuses paid to executives if the company is found to have misstated its financial results.

Executive compensation

The following discussion contains forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding our future compensation programs. The actual amount and form of compensation and the compensation policies and practices that we adopt in the future may differ materially from currently planned programs as summarized in this discussion.

As an emerging growth company and smaller reporting company, we have opted to comply with the executive compensation disclosure rules applicable to “smaller reporting companies,” as such term is defined in the rules promulgated under the Securities Act. The compensation provided to our named executive officers for the fiscal year ended December 31, 2023 is detailed in the 2023 Summary Compensation Table and accompanying footnotes and narrative that follow. Further, the employment terms ended for each of Mses. Truex and Beachell following the end of fiscal year ended December 31, 2023. Our named executive officers for the fiscal year ended December 31, 2023 are:

- Samantha Truex, Former Chief Executive Officer;
- Aaron Deykin, M.D., Chief Medical Officer; and
- Jennifer Beachell, Former Chief Operating Officer.

To date, the compensation of our named executive officers has consisted of a combination of base salary, cash bonuses and long-term incentive compensation in the form of stock options. Our named executive officers, like all of our full-time employees, are eligible to participate in our health and welfare benefit plans and 401(k) plan. As we transition from a private company to a publicly traded company, we intend to evaluate our compensation values and philosophy and compensation plans and arrangements as circumstances require.

2023 summary compensation table

The following table shows the total compensation earned by, or paid to, our named executive officers for services rendered to us in all capacities during the fiscal year ended December 31, 2023.

Name and principal position	Year	Salary (\$)	Bonus (\$)	Option awards ⁽¹⁾ (\$)	Non-equity incentive plan compensation ⁽²⁾ (\$)	All other compensation ⁽³⁾ (\$)	Total (\$)
Samantha Truex <i>Former Chief Executive Officer</i> ⁽⁴⁾	2023	475,000	—	943,227	235,125	9,900	1,663,252
Aaron Deykin, M.D. <i>Chief Medical Officer</i>	2023	470,000	50,000 ⁽⁵⁾	86,540	206,800	9,900	823,240
Jennifer Beachell <i>Former Chief Operating Officer</i> ⁽⁶⁾	2023	374,000	—	204,319	143,990	8,394	730,703

(1) The amounts reported in this column represent the aggregate grant date fair value of stock options granted to the named executive officers during 2023, as calculated in accordance with Financial Accounting Standards Board (“FASB”) Accounting Standards Codification (“ASC”) Topic 718. Such grant date value does not take into account any estimated forfeitures related to service-based vesting conditions. The assumptions used in the grant date fair value of the awards in this column are described in Note 10 to our consolidated financial statements included elsewhere in this prospectus. The amounts reported in this column reflect the accounting cost for these stock option awards and do not correspond to the actual economic value that may be received by our named executive officers upon the exercise of the stock option awards or any sale of the underlying shares. These awards are described in more detail under “Narrative disclosure to summary compensation table—Equity-based compensation” below.

(2) The amounts reported represent annual performance bonuses earned based on achievement of company performance during the year ended December 31, 2023. For more information on these bonuses, see description of the annual performance bonuses under the section titled “Narrative disclosure to summary compensation table—2023 non-equity compensation (cash bonuses)” below.

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- (3) The amounts reported represent an employer matching contribution on the employee's behalf under our 401(k) plan.
- (4) Ms. Truex ceased being our Chief Executive Officer in March 2024.
- (5) The amount reported represents a \$50,000 signing bonus paid to Dr. Deykin in connection with the commencement of his employment pursuant to the terms of his offer letter, as described below under "Executive compensation arrangements—Employment compensation arrangements in place prior to the offering for named executive officers."
- (6) Ms. Beachell ceased being our Chief Operating Officer in March 2024.

Narrative disclosure to summary compensation table

Compensation philosophy

Our executive compensation philosophy is to provide a competitive and market-based total compensation program to attract, motivate, and retain our executive team. Our compensation is based heavily on performance, which aligns with our goal to drive long-term growth and value creation.

2023 base salaries

Our named executive officers each receive a base salary to compensate them for services rendered to our Company. The base salary payable to each named executive officer is intended to provide a fixed component of compensation reflecting the executive's skill set, experience, role and responsibilities. Base salaries are expected to be reviewed annually, typically in connection with our annual performance review process, approved by our board of directors or the compensation committee of the board of directors, and may be adjusted from time to time to realign salaries with market levels after taking into account individual responsibilities, performance and experience, except in the case of Dr. Deykin whose base salary may be subject to upward adjustment from time to time at the Company's discretion.

The annual base salaries for each of our named executive officers for the fiscal year ended December 31, 2023 are set forth in the table below:

Name	Annual base salary
Samantha Truex	\$ 475,000
Aaron Deykin, M.D.	\$ 470,000
Jennifer Beachell	\$ 374,000

2023 non-equity compensation (cash bonuses)

For the fiscal year ended December 31, 2023, each of the named executive officers was eligible to earn an annual cash bonus determined by our board of directors in its sole discretion, based on achievement of certain corporate performance milestones primarily focused on the advancement of our program and completion of financing strategies. The target annual bonus for each of our named executive officers for the fiscal year ended December 31, 2023 was equal to the percentage of the executive's respective annual base salary specified below:

Name	Target bonus percentage
Samantha Truex	45%
Aaron Deykin, M.D.	40%
Jennifer Beachell	35%

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In the first quarter of 2024, our board of directors determined that we had achieved 110% of our performance goals for 2023 and, accordingly, paid each of our named executive officers a bonus as specified in the Summary Compensation Table above.

Equity-based compensation

Although we do not yet have a formal policy with respect to the grant of equity incentive awards to our executive officers, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, we believe that equity grants promote executive retention because they incentivize our executive officers to remain in our employment during the vesting period. To date, we have granted our named executive officers stock option awards.

For additional information regarding outstanding equity awards held by our named executive officers as of December 31, 2023, see the “Outstanding equity awards at 2023 fiscal year end” table below.

401(k) plan

We maintain a retirement savings plan (“401(k) plan”) that is intended to qualify for favorable tax treatment under Section 401(a) of the Code, and contains a cash or deferred feature that is intended to meet the requirements of Section 401(k) of the Code. U.S. employees are generally eligible to participate in the 401(k) plan, subject to certain criteria. Participants may make pre-tax and certain after-tax (Roth) salary deferral contributions to the plan from their eligible earnings up to the statutorily prescribed annual limit under the Code. Participants who are 50 years of age or older may contribute additional amounts based on the statutory limits for catch-up contributions. Participant contributions are held in trust as required by law. We make matching contributions equal to 50% of each participant’s elective deferrals on the first 6% of the participant’s compensation.

Outstanding equity awards at 2023 fiscal year end

The following table lists all outstanding equity awards held by our named executive officers as of December 31, 2023.

Name	Vesting commencement date	Option awards ⁽¹⁾			
		Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price (\$)	Option expiration date
Samantha Truex	10/13/2021 ⁽²⁾⁽³⁾	599,573	—	3.61	01/01/2032
	02/14/2023 ⁽²⁾⁽⁴⁾	409,200	—	3.61	01/01/2032
	03/02/2023 ⁽²⁾⁽⁴⁾	36,468	—	4.47	03/01/2033
	08/10/2023	—	250,000	5.10	08/13/2033
Aaron Deykin, M.D.	04/27/2022	111,079	155,512	3.61	06/03/2032
	02/14/2023	—	173,910	3.61	06/03/2032
	03/03/2023	—	15,499	4.47	03/02/2033
	08/10/2023	—	11,300	5.10	08/09/2033
Jennifer Beachell	11/29/2021	81,676	75,142	3.61	01/01/2032
	07/21/2022	8,331	15,192	3.10	09/15/2032
	02/14/2023	—	102,300	3.61	01/01/2032
	03/03/2023	—	52,653	4.47	03/02/2033
	08/10/2023	—	11,300	5.10	08/09/2033

(1) Each stock option award is subject to the terms of the Company's 2021 Stock Option and Grant Plan, as amended (the "2021 Plan"). Each stock option vests as follows: 25% of the shares subject to the stock option vested on the one year anniversary of the vesting commencement date, and the remaining 75% of the shares subject to the stock option vest on a monthly basis thereafter, in each case, subject to the NEO's continuous service relationship with the company through each applicable vesting date. Each stock option is subject to acceleration in the event of a qualified termination within the change in control period, as described below under "—Executive compensation arrangements—Employment compensation arrangements in place prior to the offering for named executive officers."

(2) Each stock option was early exercisable.

(3) As of December 31, 2023, 312,072 shares subject to this stock option were vested and 287,501 shares were unvested.

(4) As of December 31, 2023, all of the shares underlying this stock option were unvested.

Executive compensation arrangements

We have entered into an employment agreement or offer letter with each of our named executive officers. Each employment agreement or offer letter provides for "at-will" employment and the compensation and benefits described below. In connection with this offering, we intend to enter into a new severance and change in control plan effective as of the closing of this offering, in which our named executive officers will participate.

Employment compensation arrangements in place prior to the offering for named executive officers

Samantha Truex

On October 14, 2021, we entered into an executive employment agreement with Ms. Truex (the "Truex Employment Agreement") for the position of Chief Executive Officer. The Truex Employment Agreement provided for Ms. Truex's at-will employment, base salary and annual bonus eligibility, as well as a signing bonus of \$125,000 and an initial option grant, which is reflected in the "Outstanding equity awards at 2023 fiscal year end" table above. The Truex Employment Agreement provides that Ms. Truex was eligible to participate in the employee benefit plans available to our employees, subject to the terms of such plans.

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Upon a termination of Ms. Truex's employment by us without "cause" or her resignation for "good reason," each as defined in the Truex Employment Agreement, more than one month prior to a "change in control" (each term as defined in the Truex Employment Agreement) or more than twelve months following a change in control, subject to (i) signing a general release of claims in favor of the Company and (ii) not breaching any of the post-employment covenants and contractual obligations to the Company, Ms. Truex is entitled to (A) continued payment of her then current base salary for a period of twelve months and (B) if Ms. Truex was participating in the Company's group health plan immediately prior to the termination date and timely elects continuation coverage under the Consolidated Omnibus Budget Reconciliation Act ("COBRA"), a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to Ms. Truex had Ms. Truex remained employed by the Company until the earliest of (a) the twelve-month anniversary of the date of termination; (b) Ms. Truex's eligibility for group health plan benefits under any other employer's group health plan; or (c) cessation of the continuation rights under COBRA and (C) a single lump sum payment equal to 100% of Ms. Truex's target bonus for the calendar year in which termination of employment occurs (collectively, the "Truex Severance Benefits"). In addition, and subject to the same conditions, upon a termination by us without cause or Ms. Truex's resignation for good reason within one month prior to, or within twelve months after, a change in control, in addition to the severance pay and benefits set forth in (A), (B) and (C) above, Ms. Truex is entitled to full acceleration of her then outstanding and unvested time-based equity awards.

Ms. Truex has entered into a Proprietary Rights, Inventions, Non-Competition, and Non-Solicitation Agreement that contains various restrictive covenants, including non-competition and non-solicitation.

Ms. Truex's employment was terminated as of March 22, 2024. In connection with such termination, we entered into a separation agreement with Ms. Truex, dated as of March 13, 2024 (the "Truex Separation Agreement"), including a release of claims, providing for (i) the Truex Severance Benefits, (ii) acceleration of her then outstanding and unvested time-based equity awards granted on August 14, 2023, such that options to purchase 36,458 shares vested as of the date of termination, (iii) an extension of the exercise period of Ms. Truex's vested options from 90 days to 24 months from the date of termination, provided that such period may be shortened consistent with the provisions of the applicable equity documents in the event of a change of control or sale event and (iv) a reimbursement of legal fees of up to \$10,000 incurred in connection with the review of the Truex Separation Agreement.

Aaron Deykin, M.D.

On March 10, 2022, we entered into an offer letter with Dr. Deykin (the "Deykin Offer Letter") for the position of Chief Medical Officer and Head of Research and Development. The Deykin Offer Letter provides for Dr. Deykin's at-will employment, base salary and annual bonus eligibility. In addition, the Deykin Offer Letter provides for a \$100,000 signing bonus, payable in two equal installments, with the first such installment having been paid shortly following Dr. Deykin's commencement of employment with us and the remainder becoming payable one year thereafter, subject to Dr. Deykin's continued employment with us through such date. The Deykin Offer Letter also provides for an initial option grant, which is reflected in the "Outstanding equity awards at 2023 fiscal year end" table above. Dr. Deykin is eligible to participate in the employee benefit plans available to our senior executives, subject to the terms of such plans.

Upon a termination of Dr. Deykin's employment by us without "cause" or his resignation for "good reason" more than three months prior to a "change in control" (each term as defined in the Deykin Offer Letter) or more than twelve months following a change in control, subject to (i) signing a general release of claims in favor of the Company and (ii) not breaching any of the post-employment covenants and contractual obligations to the Company, Dr. Deykin shall be entitled to (A) continued payment of his then current base salary for a period of six months, (B) if Dr. Deykin was participating in the Company's group health plan immediately prior to the

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termination date and timely elects continuation coverage under COBRA, a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to Dr. Deykin had Dr. Deykin remained employed by the Company until the earliest of (a) the six-month anniversary of the date of termination; (b) Dr. Deykin's eligibility for group health plan benefits under any other employer's group health plan; or (c) cessation of the continuation rights under COBRA and (C) a single lump sum payment equal to the prorated amount of Dr. Deykin's target bonus for the calendar year in which termination of employment occurs. In addition, and subject to the same conditions, upon a termination by us without cause or Dr. Deykin's resignation for good reason within three months prior to, or within twelve months after, a change in control, in addition to the severance pay and benefits set forth in (A), (B) and (C) above, Dr. Deykin shall be entitled to full acceleration of his then outstanding and unvested time-based equity awards.

Dr. Deykin has entered into an Employee Confidentiality, Assignment, Nonsolicitation and Noncompetition Agreement that contains various restrictive covenants, including confidentiality, non-competition and non-solicitation.

Jennifer Beachell

On November 1, 2021, we entered into an offer letter with Ms. Beachell (the "Beachell Offer Letter") for the position of Chief Commercial Officer. The Beachell Offer Letter provided for Ms. Beachell's at-will employment, base salary and annual bonus eligibility. The Beachell Offer Letter also provides for an initial option grant, which is reflected in the "Outstanding equity awards at 2023 fiscal year end" table above. The Beachell Offer Letter provides that Ms. Beachell is eligible to participate in the employee benefit plans available to our senior executives, subject to the terms of such plans.

Upon a termination of Ms. Beachell's employment by us without "cause" or her resignation for "good reason" more than one month prior to a "change in control" (each term as defined in the Beachell Offer Letter) or more than twelve months following a change in control, subject to (i) signing a general release of claims in favor of the Company and (ii) not breaching any of the post-employment covenants and contractual obligations to the Company, Ms. Beachell was entitled to (A) continued payment of her then current base salary for a period of six months, (B) if Ms. Beachell was participating in the Company's group health plan immediately prior to the termination date and timely elects continuation coverage under COBRA, a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to Ms. Beachell had Ms. Beachell remained employed by the Company until the earliest of (a) the six-month anniversary of the date of termination; (b) Ms. Beachell's eligibility for group health plan benefits under any other employer's group health plan; or (c) cessation of the continuation rights under COBRA and (C) a single lump sum payment equal to the prorated amount of Ms. Beachell's target bonus for the calendar year in which termination of employment occurs and the payment of any earned but unpaid annual bonus for the year prior to the year in which termination occurs (collectively, the "Beachell Severance Benefits"). In addition, and subject to the same conditions, upon a termination by us without cause or Ms. Beachell's resignation for good reason within one month prior to, or within twelve months after, a change in control, in addition to the severance pay and benefits set forth in (A), (B) and (C) above, Ms. Beachell is entitled to full acceleration of her then outstanding and unvested time-based equity awards.

Ms. Beachell has entered into an Employee Confidentiality, Assignment, Nonsolicitation and Noncompetition Agreement that contains various restrictive covenants, including confidentiality, non-competition and non-solicitation.

Ms. Beachell's employment was terminated as of March 8, 2024. In connection with her termination of employment, we entered into a separation agreement with Ms. Beachell, including a release of claims, providing for (i) the Beachell Severance Benefits, (ii) the extension of the post-termination exercise period of certain stock

options held by Ms. Beachell from 90 days to twelve months, provided that such period may be shortened consistent with the provisions of the applicable equity documents in the event of a change of control or sale event and (iii) reimbursement for outplacement costs in an amount not to exceed \$5,000.

Employee benefit and equity compensation plans

2021 stock option and grant plan

Our 2021 Stock Option and Grant Plan was adopted by our board of directors on December 7, 2021 and approved by our stockholders on January 19, 2022. On March 13, 2024, our board of directors adopted and our stockholders approved an amendment to the 2021 Stock Option and Grant Plan (as amended, the “2021 Plan”). The 2021 Plan will continue to govern outstanding equity awards granted thereunder. As of June 1, 2024, 91,570 shares of our common stock remained available for future issuance under the 2021 Plan. Following this offering, we will not grant any further awards under our 2021 Plan, but all outstanding awards under the 2021 Plan will continue to be governed by their existing terms.

The shares of common stock underlying any awards under the 2021 Plan that are forfeited, canceled, reacquired by the Company prior to vesting, satisfied without the issuance of stock or otherwise terminated (other than by exercise) and shares withheld upon exercise of an option or settlement of an award to cover the exercise price or tax withholding, are currently added back to the shares of common stock available for issuance under the 2021 Plan. Following this offering, such shares will be added to the shares of common stock available for issuance under the 2024 Plan.

Our board of directors and our compensation committee have acted as administrators of the 2021 Plan. The administrator has the full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted and the number of shares subject to such awards, to make any combination of awards to participants, to accelerate at any time the exercisability or vesting of any award and to determine the specific terms and conditions of each award, subject to the provisions of the 2021 Plan. Persons eligible to participate in the 2021 Plan are officers, employees, non-employee directors, consultants and advisors as selected from time to time by the administrator in its discretion.

The 2021 Plan permits the granting of nonqualified stock options and options intended to qualify as incentive stock options under Section 422 of the Code. The per share exercise price of each option is determined by our board of directors but may not be less than 100% of the fair market value of the common stock on the date of grant. The term of each option is fixed by the administrator but may not exceed 10 years from the date of grant. The administrator determines at what time or times each option may be exercised.

In addition, the 2021 Plan permits the granting of restricted shares of common stock, unrestricted stock awards and restricted stock units.

The 2021 Plan provides that upon the effectiveness of a “sale event,” as defined in the 2021 Plan, the administrator may take any one or more of the following actions as to all or any (or any portion of) outstanding awards: (i) provide that all such awards will be assumed or substituted with substantially equivalent awards by the acquiring or succeeding corporation (or affiliate thereof); (ii) provide that all such awards will terminate or forfeit upon the effective time of any such sale event unless assumed or continued by the successor entity, or new stock options or other awards are substituted therefor; or (iii) provide for a cash payment to the holders of common stock for each vested award canceled in the sale event.

Upon the occurrence of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in common stock, the administrator will equitably adjust the outstanding

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awards, which may include adjustments to the number and type of securities subject to such outstanding award and/or the exercise price or grant price, thereof.

Unless otherwise determined by the administrator, awards may generally not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and distribution.

The board of directors may amend, suspend or terminate the 2021 Plan at any time, subject to stockholder approval where such approval is required by applicable law. The administrator of the 2021 Plan may also amend, modify or cancel any outstanding award, provided that no amendment to an award may adversely affect a participant's rights without his or her consent.

2024 stock option and incentive plan

Our 2024 Plan was adopted by our board of directors on _____, 2024, approved by our stockholders on _____, 2024 and will become effective upon the date immediately preceding the date on which the registration statement of which this prospectus is part is declared effective by the SEC. The 2024 Plan will replace the 2021 Plan as our board of directors has determined not to make additional awards under the 2021 Plan following the closing of our initial public offering. However, the 2021 Plan will continue to govern outstanding equity awards granted thereunder. The 2024 Plan allows us to make equity-based and cash-based incentive awards to our officers, employees, directors and consultants.

We have initially reserved _____ shares of our common stock for the issuance of awards under the 2024 Plan (the "Initial Limit"). The 2024 Plan provides that the number of shares reserved and available for issuance under the 2024 Plan will automatically increase on January 1, 2025 and each January 1 thereafter, by _____ percent of the outstanding number of shares of our common stock on the immediately preceding December 31 or such lesser number of shares as determined by our compensation committee (the "Annual Increase"). The number of shares reserved under the 2024 Plan is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

The shares we issue under the 2024 Plan will be authorized but unissued shares or shares that we reacquire. The shares of common stock underlying any awards under the 2024 Plan and the 2021 Plan that are forfeited, cancelled, held back upon exercise or settlement of an award to satisfy the exercise price or tax withholding, reacquired by us prior to vesting, satisfied without the issuance of stock, expire or are otherwise terminated (other than by exercise) will be added back to the shares of common stock available for issuance under the 2024 Plan.

The maximum number of shares of common stock that may be issued in the form of incentive stock options shall not exceed the Initial Limit, cumulatively increased on January 1, 2025 and on each January 1 thereafter by the lesser of the Annual Increase for such year or shares of common stock.

The grant date fair value of all awards made under our 2024 Plan and all other cash compensation paid by us to any non-employee director in any calendar year for services as a non-employee director shall not exceed \$ _____; provided, however, that such amount shall be \$ _____ for the calendar year in which the applicable non-employee director is initially elected or appointed to the board of directors.

The 2024 Plan will be administered by our compensation committee. Our compensation committee has the full power to select, from among the individuals eligible for awards, the individuals to whom awards will be granted and the number of shares subject to such awards, to make any combination of awards to participants, to accelerate at any time the exercisability or vesting of any award and to determine the specific terms and conditions of each award, subject to the provisions of the 2024 Plan. Persons eligible to participate in the 2024

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Plan will be those full or part-time officers, employees, non-employee directors and consultants as selected from time to time by our compensation committee in its discretion.

The 2024 Plan permits the granting of both options to purchase common stock intended to qualify as incentive stock options under Section 422 of the Code and options that do not so qualify. The option exercise price of each option will be determined by our compensation committee but generally may not be less than 100 percent of the fair market value of our common stock on the date of grant unless the option (i) is granted pursuant to a transaction described in, and in a manner consistent with Section 424(a) of the Code, (ii) is granted to an individual who is not subject to U.S. income tax or (iii) complies with Section 409A of the Code. The term of each option will be fixed by our compensation committee and may not exceed 10 years from the date of grant. Our compensation committee will determine at what time or times each option may be exercised.

Our compensation committee may award stock appreciation rights under the 2024 Plan subject to such conditions and restrictions as it may determine. Stock appreciation rights entitle the recipient to shares of common stock, or cash, equal to the value of the appreciation in our stock price over the exercise price. The exercise price of each stock appreciation right will be determined by our compensation committee but generally may not be less than 100 percent of the fair market value of our common stock on the date of grant unless the stock appreciation right (i) is granted pursuant to a transaction described in, and in a manner consistent with Section 424(a) of the Code, (ii) is granted to an individual who is not subject to U.S. income tax or (iii) complies with Section 409A of the Code. The term of each stock appreciation right will be fixed by our compensation committee and may not exceed 10 years from the date of grant. Our compensation committee will determine at what time or times each stock appreciation right may be exercised.

Our compensation committee may award restricted shares of common stock and restricted stock units to participants subject to such conditions and restrictions as it may determine. These conditions and restrictions may include the achievement of certain performance goals and/or continued employment with us through a specified vesting period. Our compensation committee may also grant shares of common stock that are free from any restrictions under the 2024 Plan. Unrestricted stock may be granted to participants in recognition of past services or for other valid consideration and may be issued in lieu of cash compensation due to such participant.

Our compensation committee may grant dividend equivalent rights to participants that entitle the recipient to receive credits for dividends that would be paid if the recipient had held a specified number of shares of common stock.

Our compensation committee may grant cash bonuses under the 2024 Plan to participants, subject to the achievement of certain performance goals.

The 2024 Plan provides that upon the effectiveness of a "sale event," as defined in the 2024 Plan, an acquirer or successor entity may assume, continue or substitute outstanding awards under the 2024 Plan. To the extent that awards granted under the 2024 Plan are not assumed or continued or substituted by the successor entity, upon the effective time of the sale event, such awards shall terminate. In the event of such termination, (i) individuals holding options and stock appreciation rights will be permitted to exercise such options and stock appreciation rights (to the extent exercisable) within a specified period of time prior to the sale event or (ii) we may make or provide for a payment, in cash or in kind, to participants holding vested and exercisable options and stock appreciation rights equal (A) the difference between the per share cash consideration payable to stockholders in the sale event and the per share exercise price of the options or stock appreciation rights, multiplied by (B) the number of shares subject to such outstanding vested and exercisable options and stock appreciation rights (to the extent exercisable at prices not in excess of the per share cash consideration), and we may make or provide for a payment, in cash or in kind, to participants holding other vested awards equal to the per share cash consideration multiplied by the number of vested shares underlying such awards.

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Our board of directors may amend or discontinue the 2024 Plan and our compensation committee may amend or cancel outstanding awards for purposes of satisfying changes in law or any other lawful purpose, but no such action may adversely affect rights under an award without the holder's consent. Certain amendments to the 2024 Plan require the approval of our stockholders. The administrator of the 2024 Plan is specifically authorized to exercise its discretion to reduce the exercise price of outstanding stock options and stock appreciation rights or effect the repricing of such awards through cancellation and re-grants without stockholder consent. No awards may be granted under the 2024 Plan after the date that is 10 years from the effective date of the 2024 Plan. No awards under the 2024 Plan have been made prior to the date of this prospectus.

2024 employee stock purchase plan

Our ESPP was adopted by our board of directors on _____, 2024, approved by our stockholders on _____, 2024 and will become effective on the date immediately preceding the date on which the registration statement of which this prospectus forms a part is declared effective by the SEC. The ESPP is intended to qualify as an "employee stock purchase plan" within the meaning of Section 423 of the Code. The ESPP initially reserves and authorizes the issuance of up to a total of _____ shares of our common stock to participating employees. The ESPP provides that the number of shares reserved and available for issuance will automatically increase on January 1, 2025 and each January 1 thereafter through January 1, 2034, by the least of (i) _____ shares of common stock, (ii) _____ percent of the outstanding number of shares of common stock on the immediately preceding December 31, or (iii) such lesser number of shares of common stock as determined by the administrator of the ESPP. The number of shares reserved under the ESPP is subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization.

All employees employed by us or any designated subsidiary as of the first day of an offering are eligible to participate; provided that the administrator of the ESPP may determine that employees must satisfy one or more of the following service requirements before participating in the ESPP: (1) customary employment with us for more than 20 hours per week and 5 or more months per calendar year, (2) continuous employment with us for a minimum period of time, not to exceed two years, prior to the first date of an offering or (3) such other criteria as the administrator of the ESPP may determine consistent with the requirements of section 423 of the Code. However, any employee who owns 5 percent or more of the total combined voting power or value of all classes of our stock will not be eligible to purchase shares of common stock under the ESPP.

We may make one or more offerings each year to our employees to purchase shares under the ESPP, consisting of one or more purchase periods. Each eligible employee may elect to participate in any offering by submitting an enrollment form at least 15 business days before the applicable offering date

Each employee who is a participant in the ESPP may purchase shares of our common stock by authorizing payroll deductions of up to _____ percent of his or her eligible compensation during an offering period. Unless the participating employee has previously withdrawn from the offering, his or her accumulated payroll deductions will be used to purchase shares of our common stock on the last business day of the offering period at a price equal to 85 percent of the fair market value of the shares of our common stock on the first business day of the offering period or the last business day of the purchase period, whichever is lower, provided that no more than a number of shares of common stock determined by dividing \$25,000 by the fair market value of our common stock on the offering date of the offering (or such other number as established by the administrator in advance of the offering period) may be purchased by any one employee during each offering period. Under applicable tax rules, an employee may purchase no more than \$25,000 worth of shares of our common stock, valued at the start of the purchase period, under the ESPP in any calendar year.

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The accumulated payroll deductions of any employee who is not a participant on the last day of an offering period will be refunded. An employee's rights under the ESPP terminate upon voluntary withdrawal from the plan or when the employee ceases employment with us for any reason.

The ESPP may be terminated or amended by our board of directors at any time. An amendment that increases the number of shares of our common stock authorized under the ESPP and certain other amendments require the approval of our stockholders.

Senior executive cash incentive bonus plan

On _____, 2024 our board of directors adopted the Senior Executive Cash Incentive Bonus Plan (the "Bonus Plan"). The Bonus Plan provides for annual cash bonus payments based upon the attainment of Company and individual performance targets established by our compensation committee. The payment targets will be related to financial and operational measures or objectives with respect to our Company (the "Corporate Performance Goals") as well as individual performance objectives.

Our compensation committee may select Corporate Performance Goals from among the following: research, preclinical, non-clinical, developmental, publication, clinical or regulatory milestones; scientific or technological advances; research and development capabilities; cash flow (including, but not limited to, operating cash flow and free cash flow); revenue; corporate revenue; earnings before interest, taxes, depreciation, and amortization; net income (loss) (either before or after interest, taxes, depreciation, and/or amortization); changes in the market price of our common stock; economic value-added; acquisitions or strategic transactions, including collaborations, joint ventures, or promotion arrangements; operating income (loss); return on capital assets, equity, or investment; stockholder returns; sales; net sales; return on sales; gross or net profit levels; productivity; expense efficiency; margins; operating efficiency; customer satisfaction; working capital; earnings (loss) per share of our common stock; bookings, new bookings, or renewals; sales or market shares; number of customers, number of new customers, or customer references; operating income and/or net annual recurring revenue; or any other performance goal as selected by the compensation committee, any of which may be measured in absolute terms, as compared to any incremental increase, in terms of growth, as compared to results of a peer group, against the market as a whole, compared to applicable market indices, and/or measured on a pre-tax or post-tax basis.

Each executive officer who is selected to participate in the Bonus Plan will have a target bonus opportunity set for each performance period. The bonus formulas will be adopted in each performance period by the compensation committee and communicated to each executive. The Corporate Performance Goals will be measured at the end of each performance period after our financial reports have been published or such other appropriate time as the compensation committee determines. If the Corporate Performance Goals and individual performance objectives are met, payments will be made as soon as practicable following the end of each performance period, but no later than 74 days after the end of the fiscal year in which such performance period ends. Subject to the rights contained in any agreement between the executive officer and us, an executive officer must be employed by us on the bonus payment date to be eligible to receive a bonus payment. The Bonus Plan also permits the compensation committee to approve additional bonuses to executive officers in its sole discretion.

Director compensation

2023 director compensation table

The following table presents the total compensation for each person who served as a non-employee member of our board of directors during the year ended December 31, 2023. Other than as set forth in the table and described more fully below, we did not pay any compensation, make any equity awards or non-equity awards to, or pay any other compensation to any of the non-employee members of our board of directors in 2023. We reimburse non-employee members of our board of directors for reasonable travel and out-of-pocket expenses incurred in attending meetings of our board of directors and committees of our board of directors.

Name	Fees earned or paid in cash (\$)	Option awards(\$)(¹)	All other compensation (\$)	Total (\$)
Ronald Renaud Jr.(²)	80,000	128,216	—	208,216
Marcella K. Ruddy, MD(³)(⁴)	30,208	155,122	—	185,330
Edward Fleming, MD(⁵)(⁶)	—	—	—	—
Liam Ratcliffe, MD, PhD(⁵)	—	—	—	—
Erez Chimovits(⁵)	—	—	—	—
Dayton Misfeldt(⁵)	—	—	—	—
Andy Wardle, MD(⁵)(⁷)	—	—	—	—
Atsushi Sugita(⁵)	—	—	—	—
Srinivas Akkaraju(⁵)(⁸)	—	—	—	—
Emil Bujak(⁵)(⁸)	—	—	—	—
Bernard Davitian(⁵)(⁸)	—	—	—	—
Eran Perry(⁵)(⁸)	—	—	—	—
Chen Yu(⁵)(⁸)	—	—	—	—
Alex Rosen(⁵)(⁹)	—	—	—	—

(1) The amounts reported in this column represent the aggregate grant date fair value of the stock option awards granted to our directors during 2023, as calculated in accordance with FASB ASC Topic 718. Such grant date fair values do not take into account any estimated forfeitures related to service-based vesting conditions. The assumptions used in the grant date fair value of the awards reported in this column are described in Note 10 to our consolidated financial statements included elsewhere in this prospectus. The amounts reported in this column reflect the accounting cost for these stock option awards and do not correspond to the actual economic value that may be received by our directors upon the exercise of the stock option awards or any sale of the underlying shares.

(2) Mr. Renaud holds option to purchase 298,235 shares as of December 31, 2023.

(3) Dr. Ruddy holds option to purchase 61,147 shares as of December 31, 2023.

(4) The director joined the board of directors in January 2023.

(5) Such director does not hold any equity awards as of December 31, 2023.

(6) The director joined the board of directors in June 2023.

(7) The director joined the board of directors in December 2023.

(8) The director resigned from the board of directors in June 2023.

(9) The director resigned from the board of directors in November 2023.

Non-employee director compensation policy

In connection with this offering, we intend to adopt a non-employee director compensation policy that will become effective upon the completion of this offering and will be designed to enable us to attract and retain, on a long-term basis, highly qualified non-employee directors. Under the policy, each director who is not an employee will be paid cash compensation from and after the completion of this offering, as set forth below:

	Annual retainer
Board of Directors:	
Members	\$
Additional retainer for non-executive chair	\$
Audit Committee:	
Members (other than chair)	\$
Retainer for chair	\$
Compensation Committee:	
Members (other than chair)	\$
Retainer for chair	\$
Nominating and Corporate Governance Committee:	
Members (other than chair)	\$
Retainer for chair	\$

In addition, the non-employee director compensation policy will provide that, upon initial election to our board of directors, each non-employee director will be granted a _____ award (the "Initial Grant"). The Initial Grant will vest in _____, subject to continued service through the applicable vesting date. Furthermore, on the date of each annual meeting of stockholders following the completion of this offering, each non-employee director who continues as a non-employee director following such meeting will be granted an annual award (the "Annual Grant"). The Annual Grant will vest _____.

We will reimburse all reasonable out-of-pocket expenses incurred by non-employee directors in attending meetings of the board of directors and committees thereof.

Certain relationships and related party transactions

The following is a description of transactions or series of transactions since our incorporation in April 2021, to which we were or will be a party, in which:

- the amount involved in the transaction exceeds, or will exceed, the lesser of \$120,000 or one percent of the average of the Company's total assets for the last two completed fiscal years; and
- in which any of our executive officers, directors or holder of five percent or more of any class of our capital stock, including their immediate family members or affiliated entities, had or will have a direct or indirect material interest.

Compensation arrangements for our named executive officers and our directors are described elsewhere in this prospectus under "Executive compensation" and "Director compensation."

Private placement of securities

Series A redeemable convertible preferred stock financings

First closing

In October 2021, in connection with the initial closing of our Series A redeemable convertible preferred stock financing, we issued and sold an aggregate of 11,000,000 shares of our Series A redeemable convertible preferred stock at a purchase price of \$10.00 per share for an aggregate purchase price of \$110.0 million.

Each share of our Series A redeemable convertible preferred stock will automatically convert into one share of our common stock immediately prior to the completion of this offering. The following table summarizes purchases of our Series A redeemable convertible preferred stock by related persons:

Participant	Affiliated director(s) or officer(s)	Shares of series A redeemable convertible preferred stock	Total purchase price (\$)
AI Upstream LLC ⁽¹⁾	Liam Ratcliffe, M.B.Ch.B., Ph.D.	1,650,000	16,500,000
AltshulerShaham Provident Fund and Pension Ltd. ⁽²⁾	—	1,375,000	13,750,000
Decheng Global Life Sciences Fund IV, L.P. ⁽³⁾	Dayton Misfeldt	1,375,000	13,750,000
HBM Healthcare Investments (Cayman) Ltd. ⁽⁴⁾	—	1,100,000	11,000,000
Maruho Deutschland GmbH ⁽⁵⁾	Atsushi Sugita	1,375,000	13,750,000
Omega Fund VII, L.P. ⁽⁶⁾	—	825,000	8,250,000
OrbiMed Israel Partners II, L.P. ⁽⁷⁾	Erez Chimovits	275,000	2,750,000
OrbiMed Private Investments VIII, L.P. ⁽⁷⁾	Erez Chimovits	1,100,000	11,000,000
Samsara BioCapital, L.P. ⁽⁸⁾	—	825,000	8,250,000
TCG Crossover Fund I, L.P. ⁽⁹⁾	—	1,100,000	11,000,000

(1) AI Upstream LLC is a holder of five percent or more of our capital stock. Dr. Ratcliffe is head of biotech at Access Industries and a member of our board of directors.

(2) AltshulerShaham Provident Fund and Pension Ltd. is a holder of five percent or more of our capital stock.

(3) Decheng Global Life Sciences Fund IV, L.P. is a holder of five percent or more of our capital stock. Mr. Misfeldt is a partner at Decheng Capital and a member of our board of directors.

(4) HBM Healthcare Investments (Cayman) Ltd. is a holder of five percent or more of our capital stock.

(5) Maruho Deutschland GmbH is a holder of five percent or more of our capital stock. Mr. Sugita is president and chief executive officer of Maruho Co. and a member of our board of directors.

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- (6) Omega Fund VII, L.P. is a holder of five percent or more of our capital stock.
- (7) Entities affiliated with OrbiMed hold five percent or more of our capital stock. Mr. Chimovits is a partner at OrbiMed and a member of our board of directors.
- (8) Samsara BioCapital, L.P. is a holder of five percent or more of our capital stock.
- (9) TCG Crossover Fund I, L.P. is a holder of five percent or more of our capital stock.

Milestone closings

In October 2022, in connection with the interim milestone closing of our Series A redeemable convertible preferred stock financing, we issued and sold an aggregate of 1,000,000 shares of Series A redeemable convertible preferred stock at a purchase price of \$10.00 per share for an aggregate purchase price of \$10.0 million. In February 2023, in connection with the second milestone closing of our Series A redeemable convertible preferred stock financing, we issued and sold an aggregate of 8,000,000 shares of Series A redeemable convertible preferred stock at a purchase price of \$10.00 per share for an aggregate purchase price of \$80.0 million.

Each share of our Series A redeemable convertible preferred stock will automatically convert into one share of our common stock immediately prior to the completion of this offering. The following table summarizes purchases of our Series A redeemable convertible preferred stock by related persons:

Participant	Affiliated director(s) or officer(s)	Shares of series A redeemable convertible preferred stock	Total purchase price (\$)
AI Upstream LLC ⁽¹⁾	Liam Ratcliffe, M.B.Ch.B., Ph.D.	1,350,000	13,500,000
AltshulerShaham Provident Fund and Pension Ltd. ⁽²⁾	—	1,125,000	11,250,000
Decheng Global Life Sciences Fund IV, L.P. ⁽³⁾	Dayton Misfeldt	1,125,000	11,250,000
HBM Healthcare Investments (Cayman) Ltd. ⁽⁴⁾	—	900,000	9,000,000
Maruho Deutschland GmbH ⁽⁵⁾	Atsushi Sugita	1,125,000	11,250,000
Omega Fund VII, L.P. ⁽⁶⁾	—	675,000	6,750,000
OrbiMed Israel Partners II, L.P. ⁽⁷⁾	Erez Chimovits	225,000	225,000
OrbiMed Private Investments VIII, L.P. ⁽⁷⁾	Erez Chimovits	900,000	9,000,000
Samsara BioCapital, L.P. ⁽⁸⁾	—	675,000	6,750,000
TCG Crossover Fund I, L.P. ⁽⁹⁾	—	900,000	9,000,000

- (1) AI Upstream LLC is a holder of five percent or more of our capital stock. Dr. Ratcliffe is head of biotech at Access Industries and a member of our board of directors.
- (2) AltshulerShaham Provident Fund and Pension Ltd. is a holder of five percent or more of our capital stock.
- (3) Decheng Global Life Sciences Fund IV, L.P. is a holder of five percent or more of our capital stock. Mr. Misfeldt is a partner at Decheng Capital and a member of our board of directors.
- (4) HBM Healthcare Investments (Cayman) Ltd. is a holder of five percent or more of our capital stock.
- (5) Maruho Deutschland GmbH is a holder of five percent or more of our capital stock. Mr. Sugita is president and chief executive officer of Maruho Co. and a member of our board of directors.
- (6) Omega Fund VII, L.P. is a holder of five percent or more of our capital stock.
- (7) Entities affiliated with OrbiMed hold five percent or more of our capital stock. Mr. Chimovits is a partner at OrbiMed and a member of our board of directors.
- (8) Samsara BioCapital, L.P. is a holder of five percent or more of our capital stock.
- (9) TCG Crossover Fund I, L.P. is a holder of five percent or more of our capital stock.

Series B redeemable convertible preferred stock financing

First closing

In June 2023, we issued and sold an aggregate of 2,941,170 shares of our Series B redeemable convertible preferred stock at a purchase price of \$17.00 per share for an aggregate purchase price of \$50.0 million. Each share of our Series B redeemable convertible preferred stock will automatically convert into one share of our common stock immediately prior to the completion of this offering. The following table summarizes purchases of our Series B redeemable convertible preferred stock by related persons:

Participant	Affiliated director(s) or officer(s)	Shares of series B redeemable convertible preferred stock	Total purchase price (\$)
AI Upstream LLC ⁽¹⁾	Liam Ratcliffe, M.B.Ch.B., Ph.D.	279,411	4,749,987
AltshulerShaham Provident Fund and Pension Ltd. ⁽²⁾	—	183,823	3,124,991
BCLS Fund III Investments, LP	—	433,823	7,374,991
Decheng Global Life Sciences Fund IV, L.P. ⁽³⁾	Dayton Misfeldt	110,294	1,874,998
HBM Healthcare Investments (Cayman) Ltd. ⁽⁴⁾	—	147,058	2,499,986
Omega Fund VII, L.P.	—	110,294	1,874,998
OrbiMed Israel Partners II, L.P. ⁽⁵⁾	Erez Chimovits	47,058	799,986
OrbiMed Private Investments VIII, L.P. ⁽⁵⁾	Erez Chimovits	188,235	3,199,995
Samsara BioCapital, L.P.	—	117,647	1,999,999
TCG Crossover Fund I, L.P. ⁽⁶⁾	—	161,764	2,749,988
Upstream Aggregator L.P. ⁽⁷⁾	H. Edward Fleming, Jr., M.D.	514,705	8,749,985
Venrock Healthcare Capital Partners EG, L.P. ⁽⁸⁾	Andy Wardle, M.B.Ch.B., M.B.A.	308,361	5,242,137
Venrock Healthcare Capital Partners III, L.P. ⁽⁸⁾	Andy Wardle, M.B.Ch.B., M.B.A.	114,052	1,938,884
VHCP Co-Investment Holdings III, LLC ⁽⁸⁾	Andy Wardle, M.B.Ch.B., M.B.A.	11,410	193,970

(1) AI Upstream LLC is a holder of five percent or more of our capital stock. Dr. Ratcliffe is head of biotech at Access Industries and a member of our board of directors.

(2) AltshulerShaham Provident Fund and Pension Ltd. is a holder of five percent or more of our capital stock.

(3) Decheng Global Life Sciences Fund IV, L.P. is a holder of five percent or more of our capital stock. Mr. Misfeldt is a partner at Decheng Capital and a member of our board of directors.

(4) HBM Healthcare Investments (Cayman) Ltd. is a holder of five percent or more of our capital stock.

(5) Entities affiliated with OrbiMed hold five percent or more of our capital stock. Mr. Chimovits is a partner at OrbiMed and a member of our board of directors.

(6) TCG Crossover Fund I, L.P. is a holder of five percent or more of our capital stock.

(7) Upstream Aggregator L.P. holds five percent or more of our capital stock. Dr. Fleming is an executive vice president at Enavate Sciences and a member of our board of directors.

(8) Dr. Wardle is a partner at Venrock Healthcare Capital Partners and a member of our board of directors.

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Series B option closing

In April 2024, in connection with the Series B option closing of our Series B redeemable convertible preferred stock financing, we issued and sold an aggregate of 8,823,523 shares of our Series B redeemable convertible preferred stock at a purchase price of \$17.00 per share for an aggregate purchase price of \$150.0 million. Each share of our Series B redeemable convertible preferred stock will automatically convert into one share of our common stock immediately prior to the completion of this offering. The following table summarizes purchases of our Series B redeemable convertible preferred stock by related persons:

Participant	Affiliated director(s) or officer(s)	Shares of series B redeemable convertible preferred stock	Total purchase price (\$)
AI Upstream LLC ⁽¹⁾	Liam Ratcliffe, M.B.Ch.B., Ph.D.	838,235	14,249,995
AltshulerShaham Provident Fund and Pension Ltd. ⁽²⁾	—	551,470	9,374,990
BCLS Fund III Investments, LP	—	1,301,470	22,124,990
Decheng Global Life Sciences Fund IV, L.P. ⁽³⁾	Dayton Misfeldt	330,882	5,624,994
HBM Healthcare Investments (Cayman) Ltd. ⁽⁴⁾	—	441,176	7,499,992
OrbiMed Israel Partners II, L.P. ⁽⁵⁾	Erez Chimovits	141,176	2,399,992
OrbiMed Private Investments VIII, L.P. ⁽⁵⁾	Erez Chimovits	564,705	9,599,985
TCG Crossover Fund I, L.P. ⁽⁶⁾	—	485,294	8,249,998
Upstream Aggregator L.P. ⁽⁷⁾	H. Edward Fleming, Jr., M.D.	1,544,117	26,249,989
Venrock Healthcare Capital Partners EG, L.P. ⁽⁸⁾	Andy Wardle, M.B.Ch.B., M.B.A.	989,508	16,821,636
Venrock Healthcare Capital Partners III, L.P. ⁽⁸⁾	Andy Wardle, M.B.Ch.B., M.B.A.	283,590	4,821,030
VHCP Co-Investment Holdings III, LLC ⁽⁸⁾	Andy Wardle, M.B.Ch.B., M.B.A.	28,372	482,324

(1) AI Upstream LLC is a holder of five percent or more of our capital stock. Dr. Ratcliffe is head of biotech at Access Industries and a member of our board of directors.

(2) AltshulerShaham Provident Fund and Pension Ltd. is a holder of five percent or more of our capital stock.

(3) Decheng Global Life Sciences Fund IV, L.P. is a holder of five percent or more of our capital stock. Mr. Misfeldt is a partner at Decheng Capital and a member of our board of directors.

(4) HBM Healthcare Investments (Cayman) Ltd. is a holder of five percent or more of our capital stock.

(5) Entities affiliated with OrbiMed hold five percent or more of our capital stock. Mr. Chimovits is a partner at OrbiMed and a member of our board of directors.

(6) TCG Crossover Fund I, L.P. is a holder of five percent or more of our capital stock.

(7) Upstream Aggregator L.P. holds five percent or more of our capital stock. Dr. Fleming is an executive vice president at Enavate Sciences and a member of our board of directors.

(8) Dr. Wardle is a partner at Venrock Healthcare Capital Partners and a member of our board of directors.

Agreements with our stockholders

In connection with our redeemable convertible preferred stock financings, we entered into an investors' rights agreement, voting agreement and right of first refusal agreement, in each case, with the purchasers of our redeemable convertible preferred stock and certain holders of our common stock.

Our amended and restated investors' rights agreement ("Investor Rights Agreement") provides certain holders of our redeemable convertible preferred stock with a participation right to purchase their pro rata share of new securities that we may propose to sell and issue, subject to certain exceptions. Such participation right will terminate upon the completion of this offering. The Investor Rights Agreement further provides certain holders of our capital stock with the right to demand that we file a registration statement, subject to certain limitations, and to request that their shares be covered by a registration statement that we are otherwise filing. See

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“Description of capital stock—Registration rights” appearing elsewhere in this prospectus, for additional information regarding such registration rights.

Our amended and restated voting agreement (“Voting Agreement”) provides for drag-along rights in respect of sales by certain holders of our capital stock. The Voting Agreement also contains provisions with respect to the elections of our board of directors and its composition. The rights under the Voting Agreement will terminate upon the completion of this offering.

Our amended and restated right of first refusal and co-sale agreement (“Right of First Refusal and Co-Sale Agreement”) provides for rights of first refusal and co-sale rights in respect of sales by certain holders of our capital stock. The rights under the Right of First Refusal and Co-Sale Agreement will terminate upon the completion of this offering.

Indemnification agreements

In connection with this offering, we intend to enter into new agreements to indemnify our directors and executive officers. These agreements will, among other things, require us to indemnify these individuals for certain expenses (including attorneys’ fees), judgments, fines and settlement amounts reasonably incurred by such person in any action or proceeding, including any action by or in our right, on account of any services undertaken by such person on behalf of our company or that person’s status as a member of our board of directors or executive officer to the maximum extent allowed under Delaware law.

Policies for approval of related party transactions

Our board of directors reviews and approves transactions with directors, officers and holders of 5% or more of our voting securities and their affiliates, each a related party. Prior to this offering, the material facts as to the related party’s relationship or interest in the transaction are disclosed to our board of directors prior to their consideration of such transaction, and the transaction is not considered approved by our board of directors unless a majority of the directors who are not interested in the transaction approve the transaction. Further, when stockholders are entitled to vote on a transaction with a related party, the material facts of the related party’s relationship or interest in the transaction are disclosed to the stockholders, who must approve the transaction in good faith.

In connection with this offering, we will adopt a written related party transactions policy that all such transactions must be approved by our audit committee. This policy will become effective on the date on which the registration statement of which this prospectus is part is declared effective by the SEC.

Principal stockholders

The following table sets forth certain information known to us regarding beneficial ownership of our capital stock as of _____, 2024, and as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each person or group of affiliated persons known by us to be the beneficial owner of more than 5% of our capital stock;
- each of our named executive officers;
- each of our directors; and
- all of our current executive officers and directors as a group.

Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Under those rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power. Except as noted by footnote, and subject to community property laws where applicable, we believe, based on the information provided to us, that the persons and entities named in the table below have sole voting and investment power with respect to all common stock shown as beneficially owned by them. We have deemed shares of common stock subject to options that are currently exercisable or exercisable within 60 days of _____, 2024 to be outstanding and to be beneficially owned by the person holding the option for the purpose of computing the percentage ownership of that person but have not treated them as outstanding for the purpose of computing the percentage ownership of any other person.

The percentage of beneficial ownership prior to this offering in the table below is based on _____ shares of common stock deemed to be outstanding as of _____, assuming the automatic conversion of all outstanding shares of our Series A and Series B redeemable convertible preferred stock immediately prior to the completion of this offering, and the percentage of beneficial ownership after this offering in the table below is based on _____ shares of common stock assumed to be outstanding after the completion of the offering. The information in the table below assumes no exercise of the underwriters' option to purchase additional shares.

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Unless otherwise noted below, the address for each beneficial owner listed in the table below is c/o Upstream Bio, Inc., 460 Totten Pond Road, Suite 420, Waltham, MA 02451.

Name of beneficial owner	Shares beneficially owned prior to offering		Shares beneficially owned after offering	
	Number	Percent (%)	Number	Percent (%)
5% or greater shareholders:				
Entities affiliated with OrbiMed				
AI Upstream LLC				
AltshulerShaham Provident Fund and Pension Ltd.				
Decheng Capital Global Life Sciences Fund IV, L.P.				
TCG Crossover Fund I, L.P.				
HBM Healthcare Investments (Cayman) Ltd.				
Maruho Deutschland GmbH				
Upstream Aggregator, LP				
Samsara BioCapital, L.P.				
Omega Fund VII, L.P.				
BCLS Fund III Investments, LP				
Entities affiliated with Venrock				
Named executive officers and directors:				
Jennifer Beachell, <i>Former Chief Operating Officer</i>				
Aaron Deykin, M.D., <i>Chief Medical Officer</i>				
Samantha Truex, <i>Former Chief Executive Officer</i>				
E. Rand Sutherland, M.D., M.P.H., <i>Chief Executive Officer and Director</i>				
Ronald C. Renaud, Jr., M.B.A.				
Erez Chimovits, M.B.A.				
H. Edward Fleming, Jr., M.D.				
Dayton Misfeldt				
Liam Ratcliffe, M.B.Ch.B., Ph.D.				
Marcella Kuhlman Ruddy, M.D., M.S.				
Atsushi Sugita				
Andy Wardle, M.B.Ch.B., M.B.A.				
All current executive officers and directors as a group (12 persons)				

* Represents beneficial ownership of less than one percent.

Description of capital stock

The following descriptions are summaries of the material terms of our third amended and restated certificate of incorporation, which will become effective immediately prior to the completion of this offering, and second amended and restated bylaws, which will become effective upon effectiveness of the registration statement of which this prospectus forms a part. The descriptions of the common stock and preferred stock give effect to changes to our capital structure that will occur immediately prior to the completion of this offering. We refer in this section to our third amended and restated certificate of incorporation as our certificate of incorporation, and we refer to our second amended and restated bylaws as our bylaws.

General

Upon filing of our certificate of incorporation and the completion of this offering, our authorized capital stock will consist of _____ shares of common stock, par value \$0.001 per share, and _____ shares of preferred stock, par value \$0.001 per share, all of which shares of preferred stock will be undesignated.

As of June 1, 2024, 34,643,313 shares of our common stock were outstanding and held by 64 stockholders of record. This amount assumes the conversion of all outstanding shares of our redeemable convertible preferred stock into common stock, which will occur immediately prior to the completion of this offering.

Common stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by our board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. The shares to be issued by us in this offering will be, when issued and paid for, validly issued, fully paid and non-assessable.

Preferred stock

Immediately prior to the completion of this offering, all outstanding shares of our redeemable convertible preferred stock will be converted into shares of our common stock. Upon the consummation of this offering, our board of directors will have the authority, without further action by our stockholders, to issue up to _____ shares of preferred stock in one or more series and to fix the rights, preferences, privileges, and restrictions thereof. These rights, preferences, and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences, sinking fund terms, and the number of shares constituting, or the designation of, such series, any or all of which may be greater than the rights of common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our Company or other corporate action. Immediately after consummation of this offering, no shares of preferred stock will be outstanding, and we have no present plan to issue any shares of preferred stock.

Stock options

As of June 1, 2024, 5,913,336 shares of common stock were issuable upon the exercise of outstanding stock options under the 2021 Plan, at a weighted-average exercise price of \$5.18 per share; and shares of our common stock were reserved for future issuance under the 2024 Plan, which will become effective once the registration statement of which this prospectus forms a part is declared effective, as well as any future automatic annual increases in the number of shares of common stock reserved for issuance under the 2024 Plan and any shares underlying outstanding stock awards granted under the 2021 Plan, that expire or are repurchased, forfeited, cancelled, or withheld. For additional information regarding terms of our equity incentive plans, see the section titled “Executive compensation—Employee benefit and equity compensation plans.”

Registration rights

Upon the completion of this offering, certain holders of our common stock, including those issuable upon the conversion of redeemable convertible preferred stock, will be entitled to rights with respect to the registration of these securities under the Securities Act. These rights are provided under the terms of an investors’ rights agreement between us and the holders of our redeemable convertible preferred stock. The investors’ rights agreement includes demand registration rights, short-form registration rights and piggyback registration rights. All fees, costs and expenses of underwritten registrations under this agreement will be borne by us and all selling expenses, including underwriting discounts and selling commissions, will be borne by the holders of the shares being registered.

Demand registration rights

Beginning six months after the completion of this offering, certain holders of our common stock, including those issuable upon the conversion of shares of our redeemable convertible preferred stock upon completion of this offering, will be entitled to demand registration rights. Under the terms of the investors’ rights agreement, we will be required, upon the written request of a majority of holders of the registrable securities then outstanding that would result in an aggregate offering price of at least \$5 million, to file a registration statement on Form S-1 with respect to the registrable securities then outstanding and to use commercially reasonable efforts to effect the registration of all or a portion of these shares for public resale.

Short-form registration rights

Upon the completion of this offering, certain holders of our common stock, including those issuable upon the conversion of shares of our redeemable convertible preferred stock upon completion of this offering, are also entitled to short-form registration rights. Pursuant to the investors’ rights agreement, if we are eligible to file a registration statement on Form S-3, upon the written request of at least 30% in interest of these holders to sell registrable securities at an aggregate price of at least \$1 million, we will be required to use commercially reasonable efforts to effect a registration of such shares. We are required to effect only one registration in any twelve month period pursuant to this provision of the investor rights agreement.

Piggyback registration rights

Upon the completion of this offering, certain holders of our common stock, including those issuable upon the conversion of shares of our redeemable convertible preferred stock upon completion of this offering, are entitled to piggyback registration rights. If we register any of our securities either for our own account or for the account of other security holders, the holders of these shares are entitled to include their shares in the

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registration. Subject to certain exceptions contained in the investors' rights agreement, we and the underwriters may limit the number of shares included in the underwritten offering to the number of shares which we and the underwriters determine in our sole discretion will not jeopardize the success of the offering.

Indemnification

Our investors' rights agreement contains customary cross-indemnification provisions, under which we are obligated to indemnify holders of registrable securities in the event of material misstatements or omissions in the registration statement attributable to us, and they are obligated to indemnify us for material misstatements or omissions attributable to them.

Expiration of registration rights

The demand registration rights and short-form registration rights granted under the investor rights agreement will terminate on the fifth anniversary of the completion of this offering.

Anti-takeover effects of our certificate of incorporation and bylaws and Delaware law

Our certificate of incorporation and bylaws will include a number of provisions that may have the effect of delaying, deferring or preventing another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board composition and filling vacancies

Our certificate of incorporation will provide for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also will provide that directors may be removed only for cause and then only by the affirmative vote of the holders of two-thirds or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of our board of directors.

No written consent of stockholders

Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder actions and would prevent the amendment of our bylaws or removal of directors by our stockholders without holding a meeting of stockholders.

Meetings of stockholders

Our certificate of incorporation and bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit

the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting

Advance notice requirements

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

Amendment to certificate of incorporation and bylaws

Any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law or our certificate of incorporation, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, and limitation of liability must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of a majority of the outstanding shares entitled to vote on the amendment, voting together as a single class, except that the amendment of the provisions relating to notice of stockholder business and nominations and special meetings must be approved by not less than two-thirds of the outstanding shares entitled to vote on the amendment, and not less than two-thirds of the outstanding shares of each class entitled to vote thereon as a class, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated preferred stock

Our certificate of incorporation provides for _____ authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable our board of directors to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest, or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Choice of forum

Our bylaws will provide that the Court of Chancery of the State of Delaware is the sole and exclusive forum for the following claims or causes of action under the Delaware statutory or common law: (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of, or a claim based on, a breach of a fiduciary duty owed by any of our current or former directors, officers, or other employees or stockholders to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law (“DGCL”) or our certificate of incorporation or amended and restated bylaws (including the interpretation, validity or enforceability thereof) or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, or (iv) any action asserting a claim governed by the internal affairs doctrine.

However, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all claims brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Consequently, this choice of forum provision would not apply to claims or causes of action brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction or the Securities Act. Moreover, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all claims brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

In addition, our bylaws will provide that, unless we consent in writing to the selection of an alternative forum, to the fullest extent permitted by law, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause or causes of action arising under the Securities Act, including all causes of action asserted against any defendant to such complaint. For the avoidance of doubt, this provision is intended to benefit and may be enforced by us, our officers and directors, the underwriters to any offering giving rise to such complaint, and any other professional entity whose profession gives authority to a statement made by that person or entity and who has prepared or certified any part of the documents underlying the offering.

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, and there can be no assurance that such provisions will be enforced by a court in those other jurisdictions. We note that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder.

Additionally, our bylaws will provide that any person or entity holding, owning or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions.

Section 203 of the Delaware General Corporation Law

Upon completion of this offering, we will be subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a three-year period following the time that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, our board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

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- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by our board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, lease, pledge, or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges, or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person affiliated with or controlling or controlled by the entity or person.

Limitations on liability and indemnification

See “Management—Limitations on liability and indemnification.”

Nasdaq Global Market listing

Our common stock is currently not listed on any securities exchange. We intend to apply to list our common stock on the Nasdaq Global Market under the trading symbol “UPB,” and this offering is contingent upon obtaining approval of such listing.

Transfer agent and registrar

Upon the completion of this offering, the transfer agent and registrar for our common stock will be Computershare Trust Company, N.A.

Shares eligible for future sale

Prior to this offering, there has been no public market for our shares. Future sales of our common stock in the public market, or the availability of such shares for sale in the public market, could adversely affect market prices prevailing from time to time. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Nevertheless, sales of our common stock in the public market after such restrictions lapse, or the perception that those sales may occur, could adversely affect the prevailing market price at such time and our ability to raise equity capital in the future.

Based on the number of shares outstanding as of June 30, 2024, upon the completion of this offering, _____ shares of our common stock will be outstanding, assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options. Of the outstanding shares, all of the shares sold in this offering will be freely tradable, except that any shares held by our affiliates, as that term is defined in Rule 144 under the Securities Act, may only be sold in compliance with the limitations described below.

Rule 144

In general, a person who has beneficially owned restricted stock for at least six months would be entitled to sell their securities provided that (i) 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 (ii) we are subject to the Securities Exchange Act of 1934, as amended (the "Exchange Act"), periodic reporting requirements for at least 90 days before the sale. Persons who have beneficially owned restricted shares 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 then outstanding, which will equal _____ shares immediately after this offering assuming no exercise of the underwriters' option to purchase additional shares, based on the number of shares outstanding as of June 30, 2024; or
- the average weekly trading volume of our common stock on the Nasdaq Global Market during the four calendar weeks preceding the filing of a notice on Form 144 with respect to the sale;

provided, in each case, that we are 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

Rule 701 under the Securities Act, as in effect on the date of this prospectus, permits resales of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers, or directors who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the date of this prospectus before selling their shares. However, substantially all Rule 701 shares are subject to lock-up agreements as described below and under "Underwriting" included elsewhere in this prospectus and will become eligible for sale upon the expiration of the restrictions set forth in those agreements.

Lock-up agreements

We, all of our directors and executive officers, and the holders of substantially all of our capital stock and securities convertible into or exchangeable for our capital stock have entered into lock-up agreements with the underwriters and/or are subject to market standoff agreements or other agreements with us, which prevents them from selling any of our common stock or any securities convertible into or exercisable or exchangeable for common stock for a period of not less than 180 days from the date of this prospectus without the prior written consent of the representatives, subject to certain exceptions. See “Underwriting” appearing elsewhere in this prospectus for more information.

Registration rights

Upon completion of this offering, certain holders of our securities will be entitled to various rights with respect to registration of their shares under the Securities Act. 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. See “Description of capital stock—Registration rights” appearing elsewhere in this prospectus for more information.

Equity incentive plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register our shares issued or reserved for issuance under our equity incentive plans. The first such registration statement is expected to be filed soon after the date of this prospectus and will automatically become effective upon filing with the SEC. Accordingly, shares registered under such registration statement will be available for sale in the open market, unless such shares are subject to vesting restrictions with us or the lock-up restrictions described above.

Material U.S. federal income tax considerations for non-U.S. holders of common stock

The following discussion is a summary of material U.S. federal income tax consequences to non-U.S. holders (as defined below) of the purchase, ownership and disposition of our common stock issued pursuant to this offering. This discussion is based on the Internal Revenue Code of 1986, as amended (the “Code”), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the “IRS”), all as in effect on the date hereof. These authorities are subject to differing interpretations and may change, possibly retroactively, resulting in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the IRS with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS or a court will agree with such statements and conclusions.

This discussion is limited to non-U.S. holders who purchase our common stock pursuant to this offering and who hold our common stock as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion is not a complete analysis of all potential U.S. federal income tax consequences relating thereto, does not address the potential application of the Medicare contribution tax on net investment income, the alternative minimum tax, or the special tax accounting rules under Section 451(b) of the Code, and also does not address any U.S. federal non-income tax consequences, such as estate or gift tax consequences, or any tax consequences arising under any state, local or foreign tax laws. This discussion does not address all of the U.S. federal income tax consequences that may be relevant to a non-U.S. holder in light of such non-U.S. holder’s particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to non-U.S. holders subject to special rules under the U.S. federal income tax laws, including:

- U.S. expatriates, former citizens, or long-term residents of the United States;
- partnerships or other entities or arrangements treated as pass-through or disregarded entities for U.S. federal income tax purposes (and investors therein);
- “controlled foreign corporations”;
- “passive foreign investment companies”;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- banks, financial institutions, investment funds, insurance companies, brokers, dealers or traders in securities;
- tax-exempt organizations and governmental organizations;
- tax-qualified retirement plans;
- persons who acquire our common stock through the exercise of an option or otherwise as compensation;
- 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 that elect to apply Section 1400Z-2 of the Code to gains recognized with respect to shares of our common stock;
- persons that own or have owned, actually or constructively, more than 5% of our common stock;
- persons who have elected to mark securities to market; and

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- persons holding our common stock as part of a hedging or conversion transaction or straddle, or synthetic security or a constructive sale, or other risk reduction strategy or integrated investment.

If an entity or arrangement that is classified as a partnership for U.S. federal income tax purposes holds our common stock, the U.S. federal income tax treatment of a partner in the partnership will generally depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Partnerships holding our common stock and the partners in such partnerships are urged to consult their tax advisors about the particular U.S. federal income tax consequences to them of holding and disposing of our common stock.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR TAX ADVISORS REGARDING THE PARTICULAR U.S. FEDERAL INCOME TAX CONSEQUENCES TO THEM OF ACQUIRING, OWNING AND DISPOSING OF OUR COMMON STOCK, AS WELL AS ANY TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL OR FOREIGN TAX LAWS AND ANY OTHER U.S. FEDERAL TAX LAWS OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Definition of non-U.S. holder

For purposes of this discussion, a non-U.S. holder is any beneficial owner of our common stock that is for U.S. federal income tax purposes:

- a non-resident alien individual;
- a corporation or any organization taxable as a corporation for U.S. federal income taxes that is not created or organized under the laws of the United States, any state thereof, or the District of Columbia; or
- a foreign trust or estate, the income of which is not subject to U.S. federal income tax on a net income basis.

Distributions on our common stock

As described under “Dividend policy,” we do not currently anticipate declaring or paying, for the foreseeable future, any distributions on our capital stock. However, if we were to distribute cash or other property on our common stock, 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.

Subject to the discussion below regarding effectively connected income, backup withholding and FATCA (as defined below), dividends paid to a non-U.S. holder of our common stock generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends or such lower rate specified by an applicable income tax treaty. To receive the benefit of a reduced treaty rate, a non-U.S. holder must furnish us or our withholding agent with a valid IRS Form W-8BEN (in the case of individuals) or IRS Form W-8BEN-E (in the case of entities), or other appropriate form, certifying such holder’s qualification for the reduced rate. This certification must be provided to us or our withholding agent before the payment of the dividends and must be updated periodically. If the non-U.S. holder holds our common stock through a financial institution or other agent acting on the non-U.S. holder’s behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our withholding agent, either directly or through other intermediaries.

If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States, and dividends paid on our common stock are effectively connected with such holder’s U.S. trade or business (and are attributable to such holder’s permanent establishment or fixed base in the United States if

required by an applicable tax treaty), the non-U.S. holder generally will be exempt from U.S. federal withholding tax. To claim the exemption, the non-U.S. holder must generally furnish a valid IRS Form W-8ECI (or applicable successor form), certifying that the dividends are effectively connected with the non-U.S. Holder's conduct of a trade or business within the United States to the applicable withholding agent.

However, any such effectively connected dividends paid on our common stock generally will be subject to U.S. federal income tax on a net income basis at the regular U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected dividends, as adjusted for certain items.

Non-U.S. holders that do not provide the required certification on a timely basis, but that qualify for a reduced treaty rate, may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS. Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and will first be applied against and reduce a holder's tax basis in our common stock, but not below zero. Any excess will be treated as gain realized on the sale or other disposition of our common stock and will be treated as described under "—Gain on disposition of our common stock" below.

Gain on disposition of our common stock

Subject to the discussion below regarding backup withholding and FATCA (as defined below), a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized on the sale or other taxable disposition of our common stock, unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States;
- the non-U.S. holder is a nonresident alien individual who is present in the United States for a period or periods aggregating 183 days or more during the taxable year of the disposition, and certain other requirements are met; or
- our common stock constitutes a "United States real property interest" by reason of our status as a United States real property holding corporation ("USRPHC") for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock, and our common stock is not "regularly traded" on an established securities market during the calendar year in which the sale or other disposition occurs.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular U.S. federal income tax rates in the same manner as if such holder were a resident of the United States. A non-U.S. holder that is a foreign corporation also may be subject to an additional branch profits tax equal to 30% (or such lower rate specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items.

Gain described in the second bullet point above will be subject to U.S. federal income tax at a flat 30% rate (or such lower rate specified by an applicable income tax treaty), but may be offset by certain U.S.-source capital losses of the non-U.S. Holder (even though the individual is not considered a resident of the United States), provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses.

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Determining whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our worldwide real property interests and our other trade or business assets. We believe that we are not currently and we do not anticipate becoming a USRPHC for U.S. federal income tax purposes, although there can be no assurance we will not in the future become a USRPHC. Even if we are treated as a USRPHC, gain realized by a non-U.S. holder on a disposition of our common stock will not be subject to U.S. federal income tax so long as (1) the non-U.S. holder owned, directly, indirectly and constructively, no more than 5% of our common stock at all times within the shorter of (a) the five-year period preceding the disposition or (b) the holder's holding period and (2) our common stock is "regularly traded" on an established securities market within the meaning of applicable U.S. Treasury regulations. There can be no assurance that our common stock qualifies as regularly traded on an established securities market for purposes of the rules described above.

Non-U.S. holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

Information reporting and backup withholding

Annual reports are required to be filed with the IRS and provided to each non-U.S. holder indicating the amount of distributions on our common stock paid to such holder and the amount of any tax withheld with respect to those distributions. These information reporting requirements apply even if no withholding was required because the distributions were effectively connected with the holder's conduct of a U.S. trade or business, or withholding was reduced or eliminated by an applicable income tax treaty. This information also may be made available under a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established. Backup withholding, currently at a 24% rate, generally will not apply to payments to a non-U.S. holder of distributions on or the gross proceeds of a disposition of our common stock provided the non-U.S. holder furnishes the required certification for its non-U.S. status, such as by providing a valid IRS Form W-8BEN, IRS Form W-8BEN-E or IRS Form W-8ECI, or otherwise establishes an exemption, and if the payor does not have actual knowledge, or reason to know, that the holder is a U.S. person who is not an exempt recipient.

Backup withholding is not an additional tax. If any amount is withheld under the backup withholding rules, the non-U.S. holder should consult with a U.S. tax advisor regarding the possibility of and procedure for obtaining a refund or a credit against the non-U.S. holder's U.S. federal income tax liability, if any.

Withholding on foreign entities

Sections 1471 through 1474 of the Code, which are commonly referred to as FATCA, impose a U.S. federal withholding tax of 30% on certain payments made to a "foreign financial institution" (as specially defined under these rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding certain U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or an exemption applies. FATCA also generally imposes a U.S. federal withholding tax of 30% on certain payments made to a "non-financial foreign entity" (as specially defined under these rules) unless such entity provides the withholding agent a certification that it does not have any "substantial United States owners" or provides information identifying certain direct and indirect U.S. owners of the entity or an exemption applies. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Under certain circumstances, a non-U.S. holder might be eligible for refunds or credits of such taxes. FATCA currently applies to dividends paid on our common stock and would have applied also to payments of gross proceeds from the sale or other disposition of our common stock. However, proposed

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regulations under FATCA provide for the elimination of the federal withholding tax of 30% applicable to gross proceeds of a sale or other disposition of from property of a type that can produce U.S. source dividends or interest. Under these proposed Treasury Regulations (which may be relied upon by taxpayers prior to finalization), FATCA withholding does not apply to gross proceeds from sales or other dispositions of our common stock.

Prospective investors are encouraged to consult with their tax advisors regarding the possible implications of FATCA on their investment in our common stock.

EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY RECENT AND PROPOSED CHANGE IN APPLICABLE LAW, AS WELL AS TAX CONSEQUENCES ARISING UNDER ANY STATE, LOCAL, NON-U.S. OR U.S. FEDERAL NON-INCOME TAX LAWS.

Underwriting

We are offering the shares of common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC, TD Securities (USA) LLC, Piper Sandler & Co. and William Blair & Company, L.L.C. are acting as joint book-running managers of the offering and as representatives of the underwriters. We have entered into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we have agreed to sell to the underwriters, and each underwriter has severally agreed to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus, the number of shares of common stock listed next to its name in the following table:

Name	Number of shares
J.P. Morgan Securities LLC	
TD Securities (USA) LLC	
Piper Sandler & Co.	
William Blair & Company, L.L.C.	
Total	

The underwriters are committed to purchase all the shares of common stock offered by us if they purchase any shares. The underwriting agreement also provides that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the common stock directly to the public at the initial public offering price set forth on the cover page of this prospectus and to certain dealers at that price less a concession not in excess of \$ _____ per share. After the initial offering of the shares to the public, if all of the shares of common stock are not sold at the initial public offering price, the underwriters may change the offering price and the other selling terms. Sales of any shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters have an option to buy up to _____ additional shares of common stock from us to cover sales of shares by the underwriters which exceed the number of shares specified in the table above. The underwriters have 30 days from the date of this prospectus to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting fee is \$ _____ per share. The following table shows the per share and total underwriting discounts and commissions to be paid to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

	Without option to purchase additional shares exercise	With full option to purchase additional shares exercise
Per share	\$ _____	\$ _____
Total	\$ _____	\$ _____

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We estimate that the total expenses of this offering, including registration, filing and listing fees, printing fees and legal and accounting expenses, but excluding the underwriting discounts and commissions, will be approximately \$. We have agreed to reimburse the underwriters for expenses relating to the clearance of this offering with the Financial Industry Regulatory Authority, Inc. in an amount up to \$.

A prospectus in electronic format may be made available on the web sites maintained by one or more underwriters, or selling group members, if any, participating in the offering. The underwriters may agree to allocate a number of shares to underwriters and selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the representatives to underwriters and selling group members that may make Internet distributions on the same basis as other allocations.

We have agreed that we will not, subject to certain exceptions, (i) 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, hedge, lend, or otherwise transfer or dispose of, directly or indirectly, or submit to, or file with, the SEC a registration statement under the Securities Act relating to, any shares of our common stock or any securities convertible into or exercisable or exchangeable for any shares of our common stock, or (ii) enter into any swap, hedging, or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of any shares of common stock or any such other securities, or publicly disclose the intention to undertake any of the foregoing (regardless of whether any of these transactions are to be settled by the delivery of shares of common stock or such other securities, in cash or otherwise), in each case without the prior written consent of J.P. Morgan Securities LLC, TD Securities (USA) LLC, Piper Sandler & Co. and William Blair & Company, L.L.C. for a period of 180 days after the date of this prospectus, other than the shares of our common stock to be sold in this offering.

The restrictions on our actions, as described above, do not apply to certain transactions, including (i) the issuance of shares of common stock or securities convertible into or exercisable for shares of our common stock pursuant to the conversion or exchange of convertible or exchangeable securities or the exercise of warrants or options (including net exercise) or the settlement of RSUs (including net settlement), in each case outstanding on the date of the underwriting agreement and described in this prospectus; (ii) grants of stock options, stock awards, restricted stock, RSUs, or other equity awards and the issuance of shares of common stock or securities convertible into or exercisable or exchangeable for shares of our common stock (whether upon the exercise of stock options or otherwise) to our employees, officers, directors, advisors, or consultants pursuant to the terms of an equity compensation plan in effect as of the closing date of this offering and described in this prospectus, provided that such recipients enter into a lock-up agreement with the underwriters; (iii) the issuance of up to 5% of the outstanding shares of common stock, or securities convertible into, exercisable for, or which are otherwise exchangeable for, common stock, immediately following the closing date of this offering, in acquisitions or other similar strategic transactions, provided that such recipients enter into a lock-up agreement with the underwriters; or (iv) the filing of any registration statement on Form S-8 relating to securities granted or to be granted pursuant to any plan in effect on the date of the underwriting agreement and described in this prospectus or any assumed benefit plan pursuant to an acquisition or similar strategic transaction.

Our directors and executive officers, and substantially all of our securityholders (such persons, the "lock-up parties") have entered into lock-up agreements with the underwriters prior to the commencement of this offering pursuant to which each lock-up party, with limited exceptions, for a period of 180 days after the date of this prospectus (such period, the "restricted period"), may not and may not cause any of their direct or indirect affiliates to, without the prior written consent of J.P. Morgan Securities LLC, TD Securities (USA) LLC, Piper Sandler & Co. and William Blair & Company, L.L.C., (i) 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, any shares of our common stock or any

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securities convertible into or exercisable or exchangeable for our common stock (including without limitation, our common stock or such other securities which may be deemed to be beneficially owned by the lock-up party in accordance with the rules and regulations of the SEC and securities which may be issued upon exercise of a stock option or warrant) (collectively with the common stock, the "lock-up securities"), (ii) enter into any hedging, swap or other agreement or transaction that transfers, in whole or in part, any of the economic consequences of ownership of the lock-up securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of the lock-up securities, in cash or otherwise, (iii) make any demand for or exercise any right with respect to the registration of any the lock-up securities, or (iv) publicly disclose the intention to do any of the foregoing.

Such persons or entities have further acknowledged that these undertakings preclude them from engaging in any hedging or other transactions or arrangements (including, without limitation, any short sale or the purchase or sale of, or entry into, any put or call option, or combination thereof, forward, swap or any other derivative transaction or instrument, however described or defined) designed or intended, or which could reasonably be expected to lead to or result in, a sale or disposition or transfer (whether by the lock-up party or any other person) of any economic consequences of ownership, in whole or in part, directly or indirectly, of any lock-up securities, whether any such transaction or arrangement (or instrument provided for thereunder) would be settled by delivery of lock-up securities, in cash or otherwise. Such persons or entities further confirm that they have furnished the representatives with the details of any transaction such persons or entities, or any of their respective affiliates, is a party to as of the date hereof, which transaction would have been restricted by the lock-up agreements if it had been entered into by such persons or entities during the restricted period.

The restrictions described in the immediately preceding paragraph and contained in the lock-up agreements between the underwriters and the lock-up parties do not apply, subject in certain cases to various conditions, to certain transactions, including (a) transfers or disposals of lock-up securities: (i) as bona fide gifts, as a charitable contribution or for bona fide estate planning purposes, (ii) by will or intestacy or any other testamentary document, (iii) to any trust for the direct or indirect benefit of the lock-up party or any immediate family member, (iv) to a corporation, partnership, limited liability company, investment fund or other entity (A) of which the lock-up party and/or its immediate family members are the legal and beneficial owner of all of the outstanding equity securities or similar interests, or (B) controlled by, or under common control with, the lock-up party or the immediate family of the lock-up party, (v) to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (i) through (iv), (vi) in the case of a corporation, partnership, limited liability company, trust or other business entity, (A) to another corporation, partnership, limited liability company, trust or other business entity that is a wholly owned subsidiary or an affiliate of the lock-up party, or to any investment fund or other entity controlling, controlled by, managing or managed by or under common control with the lock-up party or its affiliates or (B) as part of a dispositions, transfer or distribution to limited partners, members or stockholders of the lock-up party; (vii) by operation of law, (viii) to us (A) from an employee upon death, disability or termination of employment of such employee or (B) pursuant to a right of first refusal that we have with respect to transfers of such shares of our common stock or other securities, provided that such right is described in this prospectus, (ix) after the completion of this offering, as part of a transaction related to of lock-up securities acquired in (A) this offering or (B) open market transactions on or after the date of this prospectus, (x) to us in connection with the vesting, settlement or exercise of restricted stock units, options, warrants or other rights to purchase shares of our common stock (including "net" or "cashless" exercise), including for the payment of exercise price and tax and remittance payments, (xi) pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction approved by our board of directors and made to all stockholders involving a change in control, and enter into any lock-up, voting or similar agreement pursuant to which the lock-up party may agree to transfer, sell, tender or otherwise dispose of lock-up securities in connection with such a transaction, provided that if

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such transaction is not completed, all such lock-up securities would remain subject to the restrictions in the immediately preceding paragraph (xii) to an immediate family member of the lock-up party; or (xiii) to us in connection with the transfer of shares of our common stock pursuant to option agreements relating to the early exercise by the lock-up party of unvested options issued pursuant to the our equity incentive plans, which plans are in each case described in this prospectus, under which we have the right to repurchase such shares and only to the extent we elect to exercise such right; (b) exercise of the options, settlement of RSUs or other equity awards, or the exercise of warrants granted pursuant to plans described in in this prospectus, provided that any lock-up securities received upon such exercise, vesting or settlement would be subject to restrictions similar to those in the immediately preceding paragraph; (c) the conversion of outstanding preferred stock, warrants to acquire preferred stock, or convertible securities into shares of our common stock or warrants to acquire shares of our common stock, provided that any common stock or warrant received upon such conversion would be subject to restrictions similar to those in the immediately preceding paragraph; (d) the establishment or modification by lock-up parties of trading plans under Rule 10b5-1 under the Exchange Act, provided that such plan does not provide for the transfer of lock-up securities during the restricted period; and (e) sell shares of our common stock to be sold by the undersigned pursuant to the terms of the underwriting agreement.

J.P. Morgan Securities LLC, TD Securities (USA) LLC, Piper Sandler & Co. and William Blair & Company, L.L.C., in their sole discretion, may release the securities subject to any of the lock-up agreements with the underwriters described above, in whole or in part at any time.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act.

We will apply to have our common stock approved for listing on the Nasdaq Global Market (“Nasdaq”) under the symbol “UPB,” and this offering is contingent upon obtaining such approval.

In connection with this offering, the underwriters may engage in stabilizing transactions, which involves making bids for, purchasing and selling shares of common stock in the open market for the purpose of preventing or retarding a decline in the market price of the common stock while this offering is in progress. These stabilizing transactions may include making short sales of common stock, which involves the sale by the underwriters of a greater number of shares of common stock than they are required to purchase in this offering, and purchasing shares of common stock on the open market to cover positions created by short sales. Short sales may be “covered” shorts, which are short positions in an amount not greater than the underwriters’ option to purchase additional shares referred to above, or may be “naked” shorts, which are short positions in excess of that amount.

The underwriters may close out any covered short position either by exercising their option to purchase additional shares, in whole or in part, or by purchasing shares in the open market. In making this determination, the underwriters will consider, among other things, the price of shares available for purchase in the open market compared to the price at which the underwriters may purchase shares through the option to purchase additional shares. 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 common stock in the open market that could adversely affect investors who purchase in this offering. To the extent that the underwriters create a naked short position, they will purchase shares in the open market to cover the position.

The underwriters have advised us that, pursuant to Regulation M of the Securities Act, they may also engage in other activities that stabilize, maintain or otherwise affect the price of the common stock, including the imposition of penalty bids. This means that if the representatives of the underwriters purchase common stock in the open market in stabilizing transactions or to cover short sales, the representatives can require the underwriters that sold those shares as part of this offering to repay the underwriting discount received by them.

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These activities may have the effect of raising or maintaining the market price of the common stock or preventing or retarding a decline in the market price of the common stock, and, as a result, the price of the common stock may be higher than the price that otherwise might exist in the open market. If the underwriters commence these activities, they may discontinue them at any time. The underwriters may carry out these transactions on Nasdaq, in the over-the-counter market or otherwise.

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the representatives of the underwriters. In determining the initial public offering price, we and the representatives of the underwriters expect to consider a number of factors including:

- the information set forth in this prospectus and otherwise available to the representatives;
- our prospects and the history and prospects for the industry in which we compete;
- an assessment of our management;
- our prospects for future earnings;
- the general condition of the securities markets at the time of this offering;
- the recent market prices of, and demand for, publicly traded common stock of generally comparable companies; and
- other factors deemed relevant by the underwriters and us.

Neither we nor the underwriters can assure investors that an active trading market will develop for shares of our common stock, or that the shares will trade in the public market at or above the initial public offering price.

Other relationships

Certain of the underwriters and their affiliates have provided in the past to us and our affiliates and may provide from time to time in the future certain commercial banking, financial advisory, investment banking and other services for us and such affiliates in the ordinary course of their business, for which they have received and may continue to receive customary fees and commissions. In addition, from time to time, certain of the underwriters and their affiliates may effect transactions for their own account or the account of customers, and hold on behalf of themselves or their customers, long or short positions in our debt or equity securities or loans, and may do so in the future.

Selling restrictions

Other than in the United States, no action has been taken by us or the underwriters that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to observe any restrictions relating to the offering and the distribution of this prospectus. This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

Notice to prospective investors in the European Economic Area

In relation to each Member State of the European Economic Area (each a “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 offers of shares may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- (i). to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;
- (ii). 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 underwriters; or
- (iii). in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation, and each person who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and to us that it is a “qualified investor” within the meaning of Article 2(e) of the Prospectus Regulation. In the case of any shares being offered to a financial intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an “offer to the public” in relation to 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, and the expression “Prospectus Regulation” means Regulation (EU) 2017/1129.

Notice to prospective investors in 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 (i) has been approved by the Financial Conduct Authority or (ii) is to be treated as if it had been approved by the Financial Conduct Authority in accordance with the transitional provisions in Article 74 (transitional provisions) of the Prospectus Amendment etc (EU Exit) Regulations 2019/1234, except that the shares may be offered to the public in the United Kingdom at any time:

- (i). to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- (ii). 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 underwriters for any such offer; or
- (iii). in any other circumstances falling within Section 86 of the FSMA.

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provided that no such offer of the shares shall require the Issuer or any Manager to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. 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 and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the Prospectus Regulation) (i) 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, as amended (the “Order”) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”) or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

Notice to prospective investors in Canada

The shares may be sold 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 shares must be made in accordance with an exemption from, 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 for particulars 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.

Notice to prospective investors in Switzerland

This prospectus does not constitute an offer to the public or a solicitation to purchase or invest in any shares. No shares have been offered or will be offered to the public in Switzerland, except that offers of shares may be made to the public in Switzerland at any time under the following exemptions under the Swiss Financial Services Act (“FinSA”):

- (i) to any person which is a professional client as defined under the FinSA;

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- (ii). to fewer than 500 persons (other than professional clients as defined under the FinSA), subject to obtaining the prior consent of the representatives of the underwriters for any such offer; or
- (iii). in any other circumstances falling within Article 36 FinSA in connection with Article 44 of the Swiss Financial Services Ordinance, provided that no such offer of shares shall require the Company or any investment bank to publish a prospectus pursuant to Article 35 FinSA.

The shares have not been and will not be listed or admitted to trading on a trading venue in Switzerland.

Neither this document nor any other offering or marketing material relating to the shares constitutes a prospectus as such term is understood pursuant to the FinSA and neither this document nor any other offering or marketing material relating to the shares may be publicly distributed or otherwise made publicly available in Switzerland.

Notice to prospective investors in the Dubai International Financial Centre

This document relates to an Exempt Offer in accordance with the Markets Law, DIFC Law No. 1 of 2012, as amended. This document is intended for distribution only to persons of a type specified in the Markets Law, DIFC Law No. 1 of 2012, as amended. It must not be delivered to, or relied on by, any other person. The Dubai Financial Services Authority (“DFSA”) has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus supplement nor taken steps to verify the information set forth herein and has no responsibility for this document. The securities to which this 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 document you should consult an authorized financial advisor.

In relation to its use in the DIFC, this document is strictly private and confidential and is being distributed to a limited number of investors and must not be provided to any person other than the original recipient, and may not be reproduced or used for any other purpose. The interests in the securities may not be offered or sold directly or indirectly to the public in the DIFC.

Notice to prospective investors in the United Arab Emirates

The shares have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre) other than in compliance with the laws of the United Arab Emirates (and the Dubai International Financial Centre) governing the issue, offering and sale of securities. Further, this prospectus does not constitute a public offer of securities in the United Arab Emirates (including the Dubai International Financial Centre) and is not intended to be a public offer. This prospectus has not been approved by or filed with the Central Bank of the United Arab Emirates, the Securities and Commodities Authority, Financial Services Regulatory Authority (“FSRA”) or the DFSA.

Notice to prospective investors in Australia

This prospectus:

- does not constitute a disclosure document or a prospectus under Chapter 6D.2 of the Corporations Act 2001 (Cth) (the “Corporations Act”);
- has not been, and will not be, lodged with the Australian Securities and Investments Commission (“ASIC”), as a disclosure document for the purposes of the Corporations Act and does not purport to include the information required of a disclosure document for the purposes of the Corporations Act; and

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- may only be provided in Australia to select investors who are able to demonstrate that they fall within one or more of the categories of investors, available under section 708 of the Corporations Act (“Exempt Investors”).

The shares may not be directly or indirectly offered for subscription or purchased or sold, and no invitations to subscribe for or buy the shares may be issued, and no draft or definitive offering memorandum, advertisement or other offering material relating to any shares may be distributed in Australia, except where disclosure to investors is not required under Chapter 6D of the Corporations Act or is otherwise in compliance with all applicable Australian laws and regulations. By submitting an application for the shares, you represent and warrant to us that you are an Exempt Investor.

As any offer of shares of our common stock under this prospectus will be made without disclosure in Australia under Chapter 6D.2 of the Corporations Act, the offer of those securities for resale in Australia within 12 months may, under section 707 of the Corporations Act, require disclosure to investors under Chapter 6D.2 if none of the exemptions in section 708 applies to that resale. By applying for the shares of our common stock you undertake to us that you will not, for a period of 12 months from the date of issue of the shares, offer, transfer, assign or otherwise alienate those shares of our common stock to investors in Australia except in circumstances where disclosure to investors is not required under Chapter 6D.2 of the Corporations Act or where a compliant disclosure document is prepared and lodged with ASIC.

Notice to prospective investors in Japan

The shares have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the shares nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any “resident” of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to or for the benefit of a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

Notice to prospective investors in Hong Kong

The shares have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (the “SFO”) of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong) (the “CO”) or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares has been or may be issued or has been or may be in the possession of any person for the purposes of issue, 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 of 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” as defined in the SFO and any rules made thereunder.

Notice to prospective investors in Singapore

Each underwriter has acknowledged that this prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any shares or caused the shares to be made the subject of an invitation for subscription or

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purchase and will not offer or sell any shares or cause the shares to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares, whether directly or indirectly, to any person in Singapore other than:

- (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to 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.
- (iv) Where the shares are subscribed or purchased under Section 275 of the SFA by a relevant person which is:
 - (v) 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; or
 - (vi) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor,

securities or securities-based derivatives contracts (each term as defined in Section 2(1) of the SFA) of that corporation or the beneficiaries’ rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the shares pursuant to an offer made under Section 275 of the SFA except:

- (i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(c)(ii) of the SFA;
- (ii) where no consideration is or will be given for the transfer;
- (iii) where the transfer is by operation of law;
- (iv) as specified in Section 276(7) of the SFA; or
- (v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Singapore SFA Product Classification—In connection with Section 309B of the SFA and the CMP Regulations 2018, unless otherwise specified before an offer of shares of our common stock, we have determined, and hereby notify all relevant persons (as defined in Section 309A(1) of the SFA), that the shares of common stock 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).

Notice to prospective investors in Bermuda

Shares may be offered or sold in Bermuda only in compliance with the provisions of the Investment Business Act of 2003 of Bermuda which regulates the sale of securities in Bermuda. Additionally, non-Bermudian persons (including companies) may not carry on or engage in any trade or business in Bermuda unless such persons are permitted to do so under applicable Bermuda legislation.

Notice to prospective investors in Saudi Arabia

This document may not be distributed in the Kingdom of Saudi Arabia except to such persons as are permitted under the Rules on the Offer of Securities and Continuing Obligations Regulations as issued by the board of the Saudi Arabian Capital Market Authority (“CMA”) pursuant to resolution number 3-123-2017 dated 27 December 2017, as amended (the “CMA Regulations”). The CMA does not make any representation as to the accuracy or completeness of this document and expressly disclaims any liability whatsoever for any loss arising from, or incurred in reliance upon, any part of this document. Prospective purchasers of the securities offered hereby should conduct their own due diligence on the accuracy of the information relating to the securities. If you do not understand the contents of this document, you should consult an authorised financial adviser.

Notice to prospective investors in the British Virgin Islands

The shares are not being, and may not be offered to the public or to any person in the British Virgin Islands for purchase or subscription by or on behalf of us. The shares may be offered to companies incorporated under the BVI Business Companies Act, 2004 (British Virgin Islands), “BVI Companies”), but only where the offer will be made to, and received by, the relevant BVI Company entirely outside of the British Virgin Islands.

Notice to prospective investors in China

This prospectus will not be circulated or distributed in the PRC and the shares will not be offered or sold, and will not be offered or sold to any person for re-offering or resale directly or indirectly to any residents of the PRC (for such purposes, not including the Hong Kong and Macau Special Administrative Regions or Taiwan), except pursuant to any applicable laws and regulations of the PRC. Neither this prospectus nor any advertisement or other offering material may be distributed or published in the PRC, except under circumstances that will result in compliance with applicable laws and regulations.

Notice to prospective investors in Korea

The shares have not been and will not be registered under the Financial Investments Services and Capital Markets Act of Korea and the decrees and regulations thereunder (the “FSCMA”), and the shares have been and will be offered in Korea as a private placement under the FSCMA. None of the shares may be offered, sold or delivered directly or indirectly, or offered or sold to any person for re-offering or resale, directly or indirectly, in Korea or to any resident of Korea except pursuant to the applicable laws and regulations of Korea, including the FSCMA and the Foreign Exchange Transaction Law of Korea and the decrees and regulations thereunder (the “FETL”). Furthermore, the purchaser of the shares shall comply with all applicable regulatory requirements (including but not limited to requirements under the FETL) in connection with the purchase of the shares. By the purchase of the shares, the relevant holder thereof will be deemed to represent and warrant that if it is in Korea or is a resident of Korea, it purchased the shares pursuant to the applicable laws and regulations of Korea.

Notice to prospective investors in Malaysia

No prospectus or other offering material or document in connection with the offer and sale of the shares has been or will be registered with the Securities Commission of Malaysia (“Commission”) for the Commission’s approval pursuant to the Capital Markets and Services Act 2007. 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 Malaysia other than (i) a

closed end fund approved by the Commission; (ii) a holder of a Capital Markets Services Licence; (iii) a person who acquires the shares, as principal, if the offer is on terms that the shares may only be acquired at a consideration of not less than RM250,000 (or its equivalent in foreign currencies) for each transaction; (iv) an individual whose total net personal assets or total net joint assets with his or her spouse exceeds RM3 million (or its equivalent in foreign currencies), excluding the value of the primary residence of the individual; (v) an individual who has a gross annual income exceeding RM300,000 (or its equivalent in foreign currencies) per annum in the preceding twelve months; (vi) an individual who, jointly with his or her spouse, has a gross annual income of RM400,000 (or its equivalent in foreign currencies), per annum in the preceding twelve months; (vii) a corporation with total net assets exceeding RM10 million (or its equivalent in a foreign currencies) based on the last audited accounts; (viii) a partnership with total net assets exceeding RM10 million (or its equivalent in foreign currencies); (ix) a bank licensee or insurance licensee as defined in the Labuan Financial Services and Securities Act 2010; (x) an Islamic bank licensee or takaful licensee as defined in the Labuan Financial Services and Securities Act 2010; and (xi) any other person as may be specified by the Commission; provided that, in the each of the preceding categories (i) to (xi), the distribution of the shares is made by a holder of a Capital Markets Services License who carries on the business of dealing in securities. The distribution in Malaysia of this prospectus is subject to Malaysian laws. This prospectus does not constitute and may not be used for the purpose of public offering or an issue, offer for subscription or purchase, invitation to subscribe for or purchase any securities requiring the registration of a prospectus with the Commission under the Capital Markets and Services Act 2007.

Notice to prospective investors in Taiwan

The shares have not been and will not be registered with the Financial Supervisory Commission of Taiwan pursuant to relevant securities laws and regulations and may not be sold, issued or offered within Taiwan through a public offering or in circumstances which constitutes an offer within the meaning of the Securities and Exchange Act of Taiwan that requires a registration or approval of the Financial Supervisory Commission of Taiwan. No person or entity in Taiwan has been authorised to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the shares in Taiwan.

Notice to prospective investors in South Africa

Due to restrictions under the securities laws of South Africa, no “offer to the public” (as such term is defined in the South African Companies Act, No. 71 of 2008 (as amended or re-enacted) (the “South African Companies Act”) is being made in connection with the issue of the shares in South Africa. Accordingly, this document does not, nor is it intended to, constitute a “registered prospectus” (as that term is defined in the South African Companies Act) prepared and registered under the South African Companies Act and has not been approved by, and/or filed with, the South African Companies and Intellectual Property Commission or any other regulatory authority in South Africa. The shares are not offered, and the offer shall not be transferred, sold, renounced or

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delivered, in South Africa or to a person with an address in South Africa, unless one or other of the following exemptions stipulated in section 96 (1) applies:

- Section 96 (1) (a) the offer, transfer, sale, renunciation or delivery is to:
- (i) persons whose ordinary business, or part of whose ordinary business, is to deal in securities, as principal or agent;
 - (ii) the South African Public Investment Corporation;
 - (iii) persons or entities regulated by the Reserve Bank of South Africa;
 - (iv) authorised financial service providers under South African law;
 - (v) financial institutions recognised as such under South African law;
 - (vi) a wholly-owned subsidiary of any person or entity contemplated in (c), (d) or (e), acting as agent in the capacity of an authorised portfolio manager for a pension fund, or as manager for a collective investment scheme (in each case duly registered as such under South African law); or
 - (vii) any combination of the person in (i) to (vi); or
- Section 96 (1) (b) the total contemplated acquisition cost of the securities, for any single addressee acting as principal is equal to or greater than ZAR1,000,000 or such higher amount as may be promulgated by notice in the Government Gazette of South Africa pursuant to section 96(2)(a) of the South African Companies Act.

Information made available in this prospectus should not be considered as “advice” as defined in the South African Financial Advisory and Intermediary Services Act, 2002.

Notice to prospective investors in Israel

This prospectus does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Israeli Securities Law, and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus is being distributed only to, and is directed only at, and any offer of the shares is directed only at, (i) a limited number of persons in accordance with the Israeli Securities Law and (ii) investors listed in the first addendum, or the Addendum, to the Israeli Securities Law, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and “qualified individuals,” each as defined in the Addendum (as it may be amended from time to time), or, collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

Legal matters

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters related to this offering will be passed upon for the underwriters by Cooley LLP, San Francisco, California.

Experts

The financial statements as of December 31, 2023 and 2022 and for the years then ended included in this prospectus have been so included in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Where you can find more information

We have filed with the SEC a registration statement on Form S-1 (File Number 333-) under the Securities Act with respect to the common stock we are offering by this prospectus. This prospectus does not contain all of the information included in the registration statement. For further information pertaining to us and our common stock, you should refer to the registration statement and to its exhibits. Whenever we make reference in this prospectus to any of our contracts, agreements or other documents, the references are not necessarily complete, and you should refer to the exhibits attached to the registration statement for copies of the actual contract, agreement or other document.

Upon the completion of the offering, we will be subject to the informational requirements of the Exchange Act and will file annual, quarterly and current reports, proxy statements and other information with the SEC. You can read our SEC filings, including the registration statement, at the SEC's website at www.sec.gov. We also maintain a website at www.upstreambio.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference. Upon completion of the offering, you may access, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendment to those reported filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC.

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Report of independent registered public accounting firm

To the Board of Directors and Stockholders of Upstream Bio, Inc.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of Upstream Bio, Inc. and its subsidiary (the “Company”) as of December 31, 2023 and 2022, and the related consolidated statements of operations and comprehensive loss, of redeemable convertible preferred stock and stockholders’ deficit and of cash flows for the years then ended, including the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Basis for opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s consolidated 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 of these consolidated financial statements in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ PricewaterhouseCoopers LLP
Boston, Massachusetts
June 12, 2024

We have served as the Company’s auditor since 2022.

Upstream Bio, Inc.
Consolidated balance sheets
(Amounts in thousands, except share and per share amounts)

	December 31,	
	2023	2022
Assets		
Current assets:		
Cash and cash equivalents	\$ 25,833	\$ 17,051
Short-term investments	83,977	-
Accounts receivable - related party	98	412
Prepaid expenses and other current assets	7,088	844
Total current assets	116,996	18,307
Property and equipment, net	159	75
Operating lease right-of-use assets	43	89
Other non-current assets	-	7
Total assets	<u>\$ 117,198</u>	<u>\$ 18,478</u>
Liabilities, Redeemable Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	\$ 1,990	\$ 712
Accrued expenses and other current liabilities	4,480	4,057
Operating lease liabilities, current portion	45	87
Total current liabilities	6,515	4,856
Preferred stock tranche right liabilities	2,874	6,947
Operating lease liabilities, net of current portion	-	7
Total liabilities	9,389	11,810
Commitments and contingencies (Note 13)		
Redeemable convertible preferred stock (Series A, B), \$0.001 par value; 31,764,693 shares and 20,000,000 shares authorized at December 31, 2023 and 2022, respectively; 22,941,170 shares and 12,000,000 shares issued and outstanding at December 31, 2023 and 2022, respectively; aggregate liquidation preference of \$267,718 and \$126,886 at December 31, 2023 and 2022, respectively		
	230,935	112,823
Stockholders' deficit:		
Common stock, \$0.001 par value; 40,664,346 shares and 28,000,000 shares authorized at December 31, 2023 and 2022, respectively; 2,852,700 and 2,800,000 shares issued and outstanding at December 31, 2023 and 2022, respectively	3	3
Additional paid-in capital	4,824	1,279
Accumulated other comprehensive income	21	-
Accumulated deficit	(127,974)	(107,437)
Total stockholders' deficit	(123,126)	(106,155)
Total liabilities, redeemable convertible preferred stock and stockholders' deficit	<u>\$ 117,198</u>	<u>\$ 18,478</u>

The accompanying notes are an integral part of these consolidated financial statements.

Upstream Bio, Inc.
Consolidated statements of operations and comprehensive loss
(Amounts in thousands, except share and per share amounts)

	Year Ended December 31,	
	2023	2022
Collaboration revenue - related party	\$ 2,380	\$ 1,212
Operating expenses:		
Research and development	31,799	18,657
General and administrative ⁽¹⁾	10,695	6,464
Total operating expenses	42,494	25,121
Loss from operations	(40,114)	(23,909)
Other income (expense):		
Change in fair value of preferred stock tranche right liabilities	15,527	(77)
Interest income	4,165	205
Other expense, net	(115)	(87)
Total other income, net	19,577	41
Net loss	\$ (20,537)	\$ (23,868)
Redeemable convertible preferred stock cumulative dividends	(17,718)	-
Net loss attributable to common stockholders	\$ (38,255)	\$ (23,868)
Net loss per share attributable to common stockholders, basic and diluted	\$ (13.59)	\$ (8.52)
Weighted-average common shares outstanding, basic and diluted	2,815,786	2,800,000
Comprehensive loss:		
Net loss	\$ (20,537)	\$ (23,868)
Change in unrealized gain on investments, net of tax	21	-
Comprehensive loss	\$ (20,516)	\$ (23,868)

(1) Includes related party amounts of \$0.1 million for the year ended December 31, 2023 (Note 16).

The accompanying notes are an integral part of these consolidated financial statements.

Upstream Bio, Inc.
Consolidated statements of redeemable convertible preferred stock and stockholders' deficit
(Amounts in thousands, except share amounts)

	Redeemable Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balances at December 31, 2021	11,000,000	\$ 102,041	2,800,000	\$ 3	\$ -	\$ (83,569)	\$ -	\$ (83,566)
Issuance of Series A redeemable convertible preferred stock in connection with the partial settlement of the tranche right liability	1,000,000	10,782	-	-	-	-	-	-
Stock-based compensation expense	-	-	-	-	1,279	-	-	1,279
Net loss	-	-	-	-	-	(23,868)	-	(23,868)
Balances at December 31, 2022	12,000,000	112,823	2,800,000	3	1,279	(107,437)	-	(106,155)
Issuance of Series A redeemable convertible preferred stock in connection with the settlement of the tranche right liability	8,000,000	80,320	-	-	-	-	-	-
Issuance of Series B redeemable convertible preferred stock, net of preferred stock tranche right liability of \$11,774 and issuance costs of \$434	2,941,170	37,792	-	-	-	-	-	-
Exercise of stock options, net of tax	-	-	32,700	-	118	-	-	118
Stock-based compensation expense	-	-	-	-	3,325	-	-	3,325
Stock-based compensation expense - related party	-	-	20,000	-	102	-	-	102
Unrealized gain on available-for-sale securities, net of tax	-	-	-	-	-	-	21	21
Net loss	-	-	-	-	-	(20,537)	-	(20,537)
Balances at December 31, 2023	<u>22,941,170</u>	<u>\$ 230,935</u>	<u>2,852,700</u>	<u>\$ 3</u>	<u>\$ 4,824</u>	<u>\$ (127,974)</u>	<u>\$ 21</u>	<u>\$ (123,126)</u>

The accompanying notes are an integral part of these consolidated financial statements.

Upstream Bio, Inc.
Consolidated statements of cash flows
(Amounts in thousands)

	Year Ended December 31,	
	2023	2022
Cash flows from operating activities:		
Net loss	\$ (20,537)	\$ (23,868)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	60	7
Stock-based compensation expense	3,325	1,279
Stock-based compensation expense - related party	102	-
Change in fair value of preferred stock tranche right liabilities	(15,527)	77
Series B issuance costs allocated to tranche right liability	134	-
Net amortization of premiums and accretion of discounts on short-term investments	(1,260)	-
Non-cash lease expense	82	72
Changes in operating assets and liabilities:		
Accounts receivable - related party	314	(412)
Prepaid expenses and other current assets	(6,237)	(585)
Other non-current assets	-	(7)
Accounts payable	1,278	462
Accrued expenses and other current liabilities	422	4,021
Operating lease liabilities	(82)	(67)
Net cash used in operating activities	<u>(37,926)</u>	<u>(19,021)</u>
Cash flows from investing activities:		
Purchases of short-term investments	(128,990)	-
Maturities of short-term investments	46,292	-
Purchases of property and equipment	(144)	(82)
Net cash used in investing activities	<u>(82,842)</u>	<u>(82)</u>
Cash flows from financing activities:		
Proceeds from the issuance of Series A redeemable convertible preferred stock ⁽¹⁾	80,000	10,000
Payments of issuance costs of Series A redeemable convertible preferred stock issued in prior period	-	(37)
Proceeds from the issuance of Series B redeemable convertible preferred stock including tranche right, net of issuance costs paid	49,432	-
Proceeds from exercises of stock options, net of tax	118	-
Net cash provided by financing activities	<u>129,550</u>	<u>9,963</u>
Net increase (decrease) in cash and cash equivalents	<u>8,782</u>	<u>(9,140)</u>
Cash and cash equivalents at beginning of period	17,051	26,191
Cash and cash equivalents at end of period	<u>\$ 25,833</u>	<u>\$ 17,051</u>
Supplemental cash flow information:		
Right-of-use asset obtained in exchange for operating lease liability	\$ 36	\$ 161
Supplemental disclosure of non-cash investing and financing activities:		
Settlement of Series A preferred stock tranche right liability	\$ 320	\$ 782

(1) Includes related party amounts of \$10.0 million and \$1.3 million for the years ended December 31, 2023 and 2022, respectively (Note 16).

The accompanying notes are an integral part of these consolidated financial statements.

Upstream Bio, Inc.
Notes to consolidated financial statements

1. Nature of the business and basis of presentation

Upstream Bio, Inc. was incorporated in April 2021, under the laws of the State of Delaware, and along with its consolidated subsidiary (collectively, the “Company” or “Upstream”), is focused on developing treatments for inflammatory diseases, with an initial focus on severe respiratory disorders. Since its inception, the Company has devoted substantially all of its efforts to raising capital and incurring research and development expenses related to advancing verekitug, a clinical-stage monoclonal antibody that targets and inhibits the Thymic Stromal Lymphopoietin receptor.

Risks and uncertainties

The global economy has experienced extreme volatility and disruptions due to the military conflict between Russia and Ukraine and the war between Israel and Hamas. These conditions have impacted, and may continue to impact, the capital and credit markets, which may reduce the Company’s ability to raise additional capital through equity, equity-linked instruments or debt financings which could negatively impact the Company’s short-term and long-term liquidity. Additionally, the Company’s results of operations could be adversely affected by general conditions in the global economy and financial markets. A severe or prolonged economic downturn could result in a variety of risks to the Company’s business, including a reduced ability to raise additional capital when needed on favorable terms, if at all. The Federal Reserve has raised interest rates multiple times in response to concerns about inflation and it may raise them again. Higher interest rates, coupled with reduced government spending and volatility in financial markets, may increase economic uncertainty and affect consumer spending. Any of the foregoing could harm the Company’s business, and it cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact its ability to raise capital, business, results of operations and financial condition.

The Company is subject to risks and uncertainties common to early-stage companies in the biopharmaceutical industry, including, but not limited to, successful development of verekitug, the development of new technological innovations by competitors, dependence on key personnel, the ability to attract and retain qualified employees, protection of proprietary technology, compliance with governmental regulations and the ability to secure additional capital to fund operations and commercial success of verekitug. There can be no assurance that the Company’s research and development will be successfully completed, that adequate protection for the Company’s intellectual property will be maintained, that any therapeutic products developed will obtain required regulatory approval or that any approved or consumer products will be commercially viable. Even if the Company’s development efforts are successful, it is uncertain when, if ever, the Company will generate significant product sales.

Liquidity

The Company has evaluated whether there are conditions and events, considered in the aggregate, that raise substantial doubt about the Company’s ability to continue as a going concern within one year after the date that the consolidated financial statements are available to be issued.

The accompanying consolidated financial statements have been prepared on the basis of continuity of operations, realization of assets and the satisfaction of liabilities and commitments in the ordinary course of business. The Company has historically financed its operations principally through the issuance and sale of Series A redeemable convertible preferred stock (“Series A Preferred Stock”) and Series B redeemable convertible

Upstream Bio, Inc.
Notes to consolidated financial statements

preferred stock (“Series B Preferred Stock”), which are collectively referred to as the “Preferred Stock.” The Company has incurred recurring losses and negative cash flows from operations since its inception and expects to continue to incur losses and negative cash flows for the foreseeable future as it continues the research and development of verekitug. During the years ended December 31, 2023 and 2022, the Company incurred a net loss of \$20.5 million and \$23.9 million, respectively. As of December 31, 2023, the Company had an accumulated deficit of \$128.0 million.

As of the date the consolidated financial statements for the year ended December 31, 2023 were available to be issued, the Company expects its existing cash, cash equivalents and short-term investments, which includes \$150.0 million in gross cash proceeds from the issuance and sale of 8,823,523 shares of Series B Preferred Stock in connection with the Series B Preferred Stock Purchase Agreement (the “Series B Agreement”) in April 2024 (Note 18), will be sufficient to fund its operating expenses and capital expenditures requirements for at least the next twelve months from the date the annual consolidated financial statements were available to be issued.

The Company is seeking to complete an initial public offering (“IPO”) of its common stock. Upon the completion of a qualified public offering on specified terms (Note 8), the Company’s outstanding Preferred Stock will automatically convert into shares of common stock. In the event the Company does not complete an IPO, until such time as the Company can generate significant product revenue, if ever, the Company expects to fund its operations through equity offerings or debt financings, credit or loan facilities, potentially other capital resources, or a combination of one or more of these funding sources. The terms of any financing may adversely affect the holdings or the rights of the Company’s stockholders. The Company’s failure to raise capital as and when needed could have a negative impact on its financial condition and its ability to pursue its business strategies. If adequate funds are not available to the Company, the Company may be required to delay, reduce or eliminate clinical programs, obtain funds through arrangements with collaborators on terms unfavorable to the Company or pursue merger or acquisition strategies. There can be no assurance the Company will be able to obtain additional funding. Although management continues to pursue these plans, there is no assurance that the Company will be successful in obtaining sufficient funding on terms acceptable to the Company to fund continuing operations, if at all.

Basis of presentation

The accompanying consolidated financial statements reflect the operations of the Company. Intercompany balances and transactions have been eliminated in consolidation. The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”). Any reference in these notes to applicable guidance is meant to refer to the authoritative U.S. GAAP as found in the Accounting Standards Codification (“ASC”) and Accounting Standards Update (“ASU”) of the Financial Accounting Standards Board (“FASB”).

Revision of prior year financial statements

In connection with the preparation of its consolidated financial statements for the year ended December 31, 2023, the Company identified a \$0.8 million error related to changes in fair value of the preferred stock tranche right liabilities in connection with the October 2022 closing of its Series A Preferred Stock during the year ended December 31, 2022 (Note 8). The Company determined that the related impact was not material to its consolidated financial statements for the year ended December 31, 2022. Accordingly, the Company revised the previously issued consolidated statement of operations and comprehensive loss, consolidated balance sheet, and

Upstream Bio, Inc.
Notes to consolidated financial statements

statement of redeemable convertible preferred stock and stockholders' deficit as of and for the year ended December 31, 2022.

2. Summary of Significant Accounting Policies

Use of estimates

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, and the disclosure of contingent assets and liabilities as of and during the reporting period. The Company bases estimates and assumptions on historical experience when available and on various factors that it believes to be reasonable under the circumstances. The Company assesses estimates on an ongoing basis; however, actual results could materially differ from those estimates. Significant estimates and assumptions reflected within these consolidated financial statements include, but are not limited to, prepaid and accrued research and development expenses, including those related to contract research organizations ("CROs"), contract manufacturing organizations ("CMOs") and other third-party vendors, the valuation of the Company's common stock and stock-based awards and the valuation of the preferred stock tranche right liabilities. Changes in estimates are recorded in the period in which they become known.

Concentration of credit risk and of significant suppliers

Financial instruments that potentially subject the Company to significant concentration of credit risk consist primarily of cash, cash equivalents and short-term investments. The Company deposits its cash and cash equivalents in financial institutions in amounts that may exceed federally insured limits, and has not experienced any losses on such accounts and does not believe it is exposed to any unusual credit risk beyond the normal credit risk associated with commercial banking relationships. The Company's short-term investments consist of U.S. treasury bills and U.S. government agency bonds which the Company believes represent minimal credit risk.

The Company is dependent on third-party manufacturers to supply products for research and development activities related to verekitug, including preclinical and clinical studies and testing. In particular, the Company relies and expects to continue to rely on a small number of manufacturers for the supply of verekitug. The Company's preclinical and clinical studies and testing could be adversely affected by a significant interruption in the supply.

Foreign currency gains and losses

The functional currency and the reporting currency of the Company is the U.S. dollar. Adjustments that arise from exchange rate changes on transactions denominated in a currency other than the functional currency are included as foreign exchange gains and losses in other expense, net in the consolidated statements of operations and comprehensive loss. The Company has not recognized material foreign currency transaction gains or losses during the years ended December 31, 2023 and 2022.

Cash and cash equivalents

The Company considers all short-term, highly liquid investments, with an original maturity of three months or less, to be cash equivalents, and includes amounts held in money market funds in the amount of \$23.3 million and \$10.0 million as of December 31, 2023 and 2022, respectively.

Upstream Bio, Inc.
Notes to consolidated financial statements

Short-term investments

Available-for-sale securities consist of investments with original maturities greater than 90 days at acquisition date. The Company classifies any investments with maturities beyond one year as short term, based on their highly liquid nature and because such available-for-sale securities represent the investment of cash that is available for current operations.

The Company's debt security investments are classified as available-for-sale and are carried at fair value, with the unrealized gains and losses reported as a component of accumulated other comprehensive income in stockholders' deficit. Realized gains and losses and declines in fair value due to credit-related factors are based on the specific identification method and are included as other expense, net in the consolidated statements of operations and comprehensive loss. The Company recorded interest income on available-for-sale investments of \$4.2 million and \$0.2 million during the years ended December 31, 2023 and 2022, respectively, which is classified as interest income in the consolidated statements of operations and comprehensive loss.

At each balance sheet date, the Company assesses available-for-sale debt securities in an unrealized loss position to determine whether the unrealized loss or any potential credit losses should be recognized in other expense, net. The Company evaluates whether it intends to sell, or it is more likely than not that it will be required to sell, the security before recovery of its amortized cost basis. The Company also evaluates whether the decline in fair value has resulted from credit losses or other factors. In making this assessment, the Company considers the severity of the impairment, any changes in interest rates, changes to the underlying credit ratings and forecasted recovery, among other factors. The credit-related portion of unrealized losses, and any subsequent improvements, are recorded in other expense, net. The portion that is not credit-related is treated in accordance with other unrealized losses as a component of accumulated other comprehensive income in stockholders' deficit. There have been no impairment or credit losses recognized during any of the periods presented.

Deferred offering costs

The Company capitalizes certain legal, professional accounting and other third-party fees that are directly associated with in process equity financings as deferred offering costs until such financings are consummated. After consummation of the equity financing, these costs are recorded as a reduction of the proceeds from the offering, either as a reduction of the carrying value of the Preferred Stock or in stockholders' deficit as a reduction of additional paid-in-capital generated as a result of the offering. Should the planned equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the consolidated statements of operations and comprehensive loss. The Company did not record any deferred offering costs as of December 31, 2023 and 2022.

Upstream Bio, Inc.
Notes to consolidated financial statements

Fair value measurements

Certain assets and liabilities of the Company are carried at fair value under U.S. GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

Level 1	Quoted prices in active markets for identical assets or liabilities.
Level 2	Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
Level 3	Unobservable inputs that are supported by little or no market activity that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

The carrying values of the Company's prepaid expenses and other current assets, accounts payable and accrued expenses and other current liabilities approximate their fair values due to the short-term nature of these assets and liabilities. The Company's cash equivalents, short-term investments and preferred stock tranche right liabilities are carried at fair value (Note 3).

Property and equipment

The Company records property and equipment at cost less accumulated depreciation and amortization. Depreciation and amortization expense is recognized using the straight-line method over the estimated useful life of each asset, as follows:

	Estimated Useful Life
Computer equipment	3 years
Office equipment	5 years
Leasehold improvements	Shorter of remaining lease term or estimated useful life

Estimated useful lives are periodically assessed to determine if changes are appropriate. Leasehold improvements are amortized using the straight-line method over the lesser of the lease term or its estimated economic useful life. Lease terms are based upon the initial lease agreement and do not consider potential renewals or extensions until such time that the renewals or extensions are contracted. Expenditures for maintenance and repairs that do not improve or extend the life of the respective assets are expensed as incurred. When assets are retired or otherwise disposed of, the cost of these assets and related accumulated depreciation or amortization are eliminated from the consolidated balance sheets and any resulting gains or losses are included in the consolidated statements of operations and comprehensive loss in the period of disposal. Costs for capital assets not yet placed into service are capitalized as construction-in-progress and depreciated once placed into service.

Upstream Bio, Inc.
Notes to consolidated financial statements

Impairment of long-lived assets

The Company evaluates its long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Factors that the Company considers in deciding when to perform an impairment review include significant underperformance of the business in relation to expectations, significant negative industry or economic trends and significant changes or planned changes in the use of the assets. If an impairment review is performed to evaluate a long-lived asset group for recoverability, the Company compares forecasts of undiscounted cash flows expected to result from the use and eventual disposition of the long-lived asset group to its carrying value. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of an asset group are less than its carrying amount. The impairment loss would be based on the excess of the carrying value of the impaired asset group over its fair value. For the years ended December 31, 2023 and 2022, the Company did not record any impairment losses on long-lived assets.

Operating leases

The Company determines if an arrangement is or contains a lease, as defined by ASU 2016-02, *Leases* (Topic 842) (“ASC 842”), at the lease inception date by evaluating whether the arrangement conveys the right to use an identified asset and whether the Company obtains substantially all of the economic benefits from and has the ability to direct the use of the asset. If an arrangement is determined to be or contain a lease, the lease is assessed for classification as either an operating or finance lease at the lease commencement date, defined as the date on which the leased asset is made available for use by the Company, based on the economic characteristics of the lease.

ASC 842 includes certain practical expedients that can be elected for new leases that are executed after the adoption of the new requirements. The Company elected the practical expedient to not separate lease and non-lease components. The Company also elected to apply the short-term lease recognition exemption which eliminates the requirement to present on the consolidated balance sheets leases with a term of 12 months or less. These two practical expedients were elected for all classes of underlying assets.

At the lease commencement date, the Company recognizes a lease liability and a right-of-use (“ROU”) asset representing its right to use the underlying asset over the lease term. The initial measurement of the lease liability is calculated as the present value of the future lease payments in the contract and the ROU asset is measured as the lease liability plus initial direct costs and prepaid lease payments, less lease incentives granted by the lessor. The subsequent measurement of a lease is dependent on whether the lease is classified as an operating lease or a finance lease. Operating lease cost is recognized on a straight-line basis over the lease term in the consolidated statements of operations and comprehensive loss.

The Company’s leases require other payments such as costs related to taxes, insurance, maintenance, and other expenses. These costs are generally variable in nature and based on the actual costs incurred and required by the lease. As the Company has elected to not separate lease and non-lease components for all classes of underlying asset, all variable costs associated with the lease are expensed in the period incurred and presented and disclosed as variable lease costs. The Company’s lease agreements do not contain any material residual value guarantees or material restrictive financial covenants.

ASC 842 requires that a lessee use the rate implicit in the lease when measuring the lease liability and ROU asset. If the rate implicit in the lease is not readily determinable, the Company is permitted to use its incremental

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borrowing rate, which is defined as the rate of interest that the Company would have to pay to borrow on a collateralized basis over a similar term an amount equal to the lease payments in a similar economic environment. Since the rate implicit in the lease is not readily determinable, the Company uses its incremental borrowing rate when measuring its leases. The incremental borrowing rate is calculated by considering the Company's credit standing, the lease term and the impact of collateral.

Most leases include options to renew and, or, terminate the lease, which can impact the lease term. The exercise of these options is at the Company's discretion. Periods covered by an option to extend a lease are not included in the lease term as the Company is not reasonably certain it will exercise this option. Additionally, periods covered by an option to terminate the lease are included in the lease term as it is reasonably certain that the Company will not exercise this option.

Segment information

Operating segments are defined as components of an enterprise for which separate discrete financial information is available for evaluation by the chief operating decision maker ("CODM") in deciding how to allocate resources and assess performance. The Company's CODM, its Chief Executive Officer, views the Company's operations and manages its business as a single operating segment, which is the business of developing treatments for inflammatory diseases, with an initial focus on severe respiratory disorders. Revenue is generated exclusively from transactions with a related party located in Japan, and all assets are held in the United States.

Classification and accretion of redeemable convertible preferred stock

The holders of Preferred Stock have certain redemption rights in the event of a deemed liquidation event that, in certain situations, are not solely within the control of the Company and would call for the redemption of the then outstanding Preferred Stock (Note 8). Therefore, the Preferred Stock is classified as mezzanine equity outside of stockholders' deficit on the consolidated balance sheets. The Company recorded the Preferred Stock at fair value upon issuance, net of tranche right liabilities (Note 8) and associated issuance costs. The Preferred Stock is not currently redeemable, and a deemed liquidation event is not currently probable. As such, the carrying values of the Preferred Stock are not being accreted to the redemption values. Subsequent adjustments to the carrying values of the Preferred Stock would be made only when a deemed liquidation event becomes probable.

Preferred stock tranche right liabilities

The purchase agreements for the Company's Preferred Stock provide the Company an obligation to issue additional Preferred Stock in subsequent closings upon the satisfaction of certain conditions (the "preferred stock tranche rights") (Note 8).

The Company classified such preferred stock tranche rights as liabilities on its consolidated balance sheets (the "preferred stock tranche right liabilities") as each preferred stock tranche right was determined to be a freestanding financial instrument that may require the Company to transfer assets to settle its obligation upon events outside of its control. The preferred stock tranche right liabilities were initially recorded at fair value upon the issuance date and are subsequently remeasured to fair value at each reporting date and immediately prior to being settled. Changes in fair value of the preferred stock tranche right liabilities are recognized as a component of other income, net in the consolidated statements of operations and comprehensive loss. Upon settlement of the tranche rights, the Company derecognized the related liability, and stopped recognizing changes in the fair value

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of the preferred stock tranche right liability. Any issuance costs allocated to the preferred stock tranche right liabilities were immediately expensed.

Revenue recognition

The Company enters into license arrangements, pursuant to which it may provide research and development services for third parties.

To determine revenue recognition for arrangements that the Company determines are within the scope of ASC 606, Revenue from Contracts with Customers, (“ASC 606”), the Company performs the following five steps: (i) identify the promised goods or services in the contract; (ii) determine whether the promised goods or services are performance obligations including whether they are distinct in the context of the contract; (iii) measure the transaction price, including the constraint on variable consideration; (iv) allocate the transaction price to the performance obligations; and (v) recognize revenue when, or as, the Company satisfies each performance obligation. At contract inception, the Company assesses whether the goods or services promised within each contract are a separate performance obligation. Goods and services that are determined not to be distinct are combined with other promised goods and services until a distinct bundle is identified. The Company then allocates the transaction price, the amount of consideration the Company expects to be entitled to from a customer in exchange for the promised goods or services, to each performance obligation and recognizes the associated revenue when each performance obligation is satisfied.

In determining the appropriate amount of revenue to be recognized, the Company uses judgment to determine: (a) the number of performance obligations; (b) the transaction price; (c) the stand-alone selling price for each performance obligation identified in the contract; and (d) the contract term and pattern of satisfaction of the performance obligations. The Company uses judgment to determine whether milestones or other variable consideration should be included in the transaction price. The transaction price is allocated to the identified performance obligations on a relative stand-alone selling price basis, for which the Company recognizes revenue as or when the performance obligations under the contract are satisfied. At contract inception, the Company estimates the total costs required to satisfy the performance obligation and subsequently updates the estimate at each reporting period. Accordingly, the Company’s estimates may change in the future and those changes could result in a change in amounts of revenue recognized and could be material.

During the years ended December 31, 2023 and 2022, the Company generated revenue from a research and development arrangement with Maruho Co., Ltd (“Maruho”), a related party, which is accounted for under ASC 606. Pursuant to the agreement, the Company provides to Maruho research and development services related to verekitug in Japan, and Maruho reimburses the Company for these costs incurred in performing the research and development services (Note 15).

The Company records accounts receivable when its right to receive consideration is solely based on the passage of time. Amounts received prior to satisfying the revenue recognition criteria are recorded as deferred revenue in the Company’s consolidated balance sheets. Amounts expected to be recognized as revenue within one year following the balance sheet date are classified as current deferred revenue. Amounts not expected to be recognized as revenue within one year following the balance sheet date are classified as deferred revenue, net of current portion. Payment terms and conditions generally require payment within 60 days of invoicing.

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Research and development expenses

Research and development expenses are expensed as incurred. Research and development expenses include salaries and benefits, stock-based compensation expense, licensed technology, external costs of third-party vendors that conduct research and development activity on behalf of the Company, and other operational costs related to the Company's research and development activities including costs related to a research and development arrangement with Maruho.

Prepaid and accrued research and development expenses

The Company recognizes research and development expense and records accruals for estimated costs of research and development activities conducted by third-party service providers, which include CROs that conduct research, preclinical studies and clinical trials on the Company's behalf, including in connection with the Company's research and development arrangement, and CMOs that manufacture the Company's product candidate for use in preclinical and clinical trials. The majority of the Company's service providers invoice in arrears for services performed, on a pre-determined schedule or when contractual milestones are met; however, some require advanced payments. The Company makes estimates of the accrued expenses and includes these costs in accrued liabilities in the consolidated balance sheets and within research and development expense in the consolidated statements of operations and comprehensive loss based on facts and circumstances known to the Company at that time. These costs are a significant component of the Company's research and development expenses.

The Company accrues for these costs based on factors such as estimates of the amount of work completed through discussions with internal personnel and external service providers as to the progress or stage of completion of the services and in accordance with agreements established with its third-party service providers for such services. The Company makes significant judgments and estimates in determining the accrued research and development liabilities balance at each reporting period. As actual costs become known, the Company adjusts its accrued estimates. To date, there have been no material adjustments to the Company's estimates of accrued research and development expenses. The Company records advance payments to service providers as prepaid expenses and other current assets, which are expensed as the contracted services are performed. If the actual timing of the performance of services varies from the estimate, then the Company adjusts the amount of the accrued expense or the prepaid expense accordingly.

Asset acquisition and acquired in-process research and development expenses

The Company accounts for acquisitions of assets or a group of assets as asset acquisitions when substantially all of the fair value of the gross assets acquired are concentrated in a single asset or group of assets or when the definition of a business is not met. The Company accounts for asset acquisitions based on the cost to acquire the asset or group of assets, which include certain transaction costs. In an asset acquisition, the cost to acquire is allocated to the identifiable assets acquired and liabilities assumed based on their relative fair values as of the acquisition date. No goodwill is recorded in an asset acquisition. Assets that are acquired in an asset acquisition for use in research and development activities that have an alternative future use are capitalized as in-process research and development ("IPR&D") assets. Acquired IPR&D that has no alternative future use as of the acquisition date is recognized as acquired research and development expense as of the acquisition date.

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General and administrative expenses

General and administrative expenses consist primarily of salaries and benefits, including stock-based compensation expense; professional fees for legal, accounting, auditing, tax and consulting services; travel expenses; and facility-related expenses, which include expenses for rent and maintenance of facilities and other operating costs. The Company expenses all general and administrative expenses as incurred.

Patent and trademarks

Costs to secure, defend and maintain patents, including those in connection with filing and prosecuting patent applications are expensed as incurred due to the uncertainty about the recovery of the expenditure. Amounts incurred are classified as general and administrative expenses.

Stock-based compensation expense

The Company measures all stock-based awards granted to employees, directors, and non-employee service providers based on fair value on the date of the grant, and recognizes the resulting fair value over the requisite service period. The Company uses the Black-Scholes option-pricing model to estimate the fair value of stock options granted. The Company has elected to recognize stock-based compensation expense for service-based stock options with graded vesting on a straight-line basis over the requisite service period, which is generally the vesting period. The Company recognizes expense related to stock options that contain performance conditions only when it is considered probable that the performance condition will be achieved. Stock-based compensation expense for stock options with performance conditions is recognized using graded vesting. The Company accounts for forfeitures as they occur.

The Company classifies stock-based compensation expense in its consolidated statements of operations and comprehensive loss in the same manner in which the award recipient's payroll costs are classified or in which the award recipient's service payments are classified.

Comprehensive loss

Comprehensive loss is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from nonowner sources, including unrealized gains and losses on marketable securities held as available for sale. There was no difference between net loss and comprehensive loss for the year ended December 31, 2022. For the year ended December 31, 2023, comprehensive loss includes net loss and unrealized gains (losses) on short-term investments.

Net loss per share

The Company calculated basic and diluted net loss per share attributable to common stockholders in conformity with the two-class method required for companies with participating securities. The Company's Preferred Stock is considered to be a participating security as the holders are entitled to receive dividends at a dividend rate payable in preference and priority to the holders of common stock. The two-class method determines net loss per share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires income available to common stockholders for the period to be allocated between common and participating securities based upon their

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respective rights to receive dividends as if all income for the period has been distributed. There is no allocation required under the two-class method during periods of loss since the participating securities do not have a contractual obligation to share in the losses of the Company.

Under the two-class method, basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period. Diluted net loss per share attributable to common stockholders is computed by (i) adjusting net loss attributable to common stockholders to reallocate undistributed earnings based on the potential impact of dilutive securities and (ii) dividing the diluted net loss attributable to common stockholders by the weighted-average number of common shares outstanding for the period, including potential dilutive common shares. For purposes of this calculation, Preferred Stock and stock options to purchase common stock are considered potential dilutive common shares.

The Company has generated a net loss for each of the periods presented. Accordingly, basic and diluted net loss per share attributable to common stockholders are the same because the inclusion of the potentially dilutive securities would be anti-dilutive.

Income taxes

The Company accounts for income taxes under the asset and liability method. Under this method, deferred tax assets and liabilities are determined based on differences between financial reporting and tax reporting bases of assets and liabilities and are measured using enacted tax rates and laws that are expected to be in effect when the differences are expected to reverse. Realization of deferred tax assets is dependent upon future earnings, the timing and amount of which are uncertain. 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 assesses the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent it believes, based upon the weight of available evidence, that it is more likely than not that all or a portion of the deferred tax assets will not be realized, a valuation allowance is established through a charge to income tax expense. Potential for recovery of deferred tax assets is evaluated by estimating the future taxable profits expected and considering prudent and feasible tax planning strategies.

The Company utilizes a two-step approach to recognize and measure uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained upon tax authority examination, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon ultimate settlement.

Recently adopted accounting pronouncements

In August 2020, the FASB issued ASU 2020-06, *Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging-Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* ("ASU 2020-06"), which is intended to simplify the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity. The guidance allows for either full retrospective adoption or modified retrospective adoption. For public entities except smaller reporting companies, the guidance is effective for annual reporting periods beginning after December 15, 2021, and for interim periods within those fiscal

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years. Early adoption is allowed. The Company adopted ASU 2020-06 effective April 21, 2021 and it did not have a material impact on the Company's consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases*, which requires lessees to recognize most leases on their balance sheet as a ROU asset and a lease liability. The standard, including subsequently issued amendments, collectively referred to as ASC 842, established principles of recognition, measurement, presentation and disclosure of lease arrangements applicable to lessees and lessors in order to enhance the transparency and compatibility of financial reporting related to the arrangements, including with respect to the amount, timing and uncertainty of cash flows arising from a lease. The Company adopted ASU 2016-02 using a modified retrospective transition approach effective January 1, 2022 and it did not have a material impact on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740)—Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), which simplifies the accounting for income taxes by removing certain exceptions to the general principles of ASC 740, *Income Taxes*. The amendments also improve consistent application of and simplify U.S. GAAP for other areas of ASC 740 by clarifying and amending existing guidance. ASU 2019-12 is effective for fiscal years and interim periods beginning after December 15, 2020 for public companies and for fiscal years beginning after December 15, 2021 for nonpublic companies, with early adoption permitted. Depending on the amendment, adoption may be applied on a retrospective, modified retrospective, or prospective basis. The Company adopted ASU 2019-12 effective January 1, 2022 and it did not have a material impact on the Company's consolidated financial statements.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326)* ("ASU 2016-13"). The new standard changes the accounting for assets held at amortized costs basis, including marketable securities accounted for as available-for-sale, and trade receivables. The standard eliminates the probable initial recognition threshold and requires an entity to reflect its current estimate of all expected credit losses. The allowance for credit losses is a valuation account that is deducted from the amortized cost basis of the financial assets to present the net amount expected to be collected. For public entities except smaller reporting companies, the guidance is effective for annual reporting periods beginning after December 15, 2019, and for interim periods within those fiscal years. In November 2019, the FASB issued ASU 2019-10, which deferred the effective date for non-public entities to annual reporting periods beginning after December 15, 2022, including interim periods within those fiscal years. Early application is allowed. The Company adopted ASU 2016-13 effective January 1, 2023 and it did not have a material impact on its consolidated financial statements.

Recently issued accounting pronouncements not yet adopted

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies and adopted by the Company as of the specified effective date. The Company qualifies as an "emerging growth company" as defined in the Jumpstart Our Business Startups Act of 2012 and has elected not to "opt out" of the extended transition related to complying with new or revised accounting standards, which means that when a standard is issued or revised and it has different application dates for public and non-public companies, the Company can adopt the new or revised standard at the time non-public companies adopt the new or revised standard and can do so until such time that the Company either (i) irrevocably elects to "opt out" of such extended transition period or (ii) no longer qualifies as an emerging growth company. The Company may choose to early adopt any new or revised accounting standards whenever such early adoption is permitted for non-public companies.

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In November 2023, the FASB issued ASU 2023-07, *Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures* (“ASU 2023-07”). ASU 2023-07 expands public entities’ segment disclosures by requiring disclosure of significant segment expenses that are regularly provided to the chief operating decision maker and included within each reported measure of segment profit or loss, an amount and description of its composition for other segment items, and interim disclosures of a reportable segment’s profit or loss and assets. All disclosure requirements under ASU 2023-07 are also required for public entities with a single reportable segment. ASU 2023-07 is effective for public business entities with fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. The Company is currently evaluating the impact of adopting ASU 2023-07 on its consolidated financial statements and related disclosures.

In December 2023, the FASB issued ASU 2023-09, *Improvements to Income Tax Disclosures* (“ASU 2023-09”). ASU 2023-09 requires public business entities to disclose additional information in specified categories with respect to the reconciliation of the effective tax rate to the statutory rate (the rate reconciliation) for federal, state, and foreign income taxes. It also requires greater detail about individual reconciling items in the rate reconciliation to the extent the impact of those items exceeds a specified threshold (if the effect of those reconciling items is equal to or greater than 5% of the amount computed by multiplying pretax income or loss by the applicable statutory income tax rate). In addition to new disclosures associated with the rate reconciliation, ASU 2023-09 requires information pertaining to taxes paid (net of refunds received) to be disaggregated for federal, state, and foreign taxes and further disaggregated for specific jurisdictions to the extent the related amounts exceed a quantitative threshold. The amendments are effective for public business entities for annual periods beginning after December 15, 2024. For entities other than public business entities, the amendments are effective for annual periods beginning after December 15, 2025. Early adoption is permitted. The Company is currently evaluating the impact of adopting ASU 2023-09 on its consolidated financial statements and related disclosures.

3. Fair value measurements

The following tables present information about the Company’s financial assets and liabilities measured at fair value on a recurring basis and indicate the level of the fair value hierarchy used to determine such fair values (in thousands):

	Fair Value Measurements at December 31, 2023 Using:			
	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets:				
Cash equivalents:				
Money market funds	\$ 23,314	\$ —	\$ —	\$ 23,314
Short-term investments:				
U.S. treasury bills	—	45,864	—	45,864
U.S. government agency bonds	—	38,113	—	38,113
	<u>\$ 23,314</u>	<u>\$ 83,977</u>	<u>\$ —</u>	<u>\$ 107,291</u>
Liabilities:				
Preferred stock tranche right liability (Series B)	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 2,874</u>	<u>\$ 2,874</u>

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	Fair Value Measurements at December 31, 2022 Using:			Total
	Level 1	Level 2	Level 3	
Assets:				
Cash equivalents:				
Money market funds	\$ 10,043	\$ —	\$ —	\$ 10,043
Liabilities:				
Preferred stock tranche right liability (Series A)	\$ —	\$ —	\$ 6,947	\$ 6,947

There were no transfers between Level 1, Level 2 and Level 3 during the years ended December 31, 2023 and 2022.

The Company classifies its U.S. treasury bills and U.S. government agency bonds as short-term based on each instrument's availability for use in current operations. The fair value of the Company's U.S. treasury bills and U.S. government agency bonds are classified as Level 2 because they are valued using observable inputs to quoted market prices, benchmark yields, reported trades, broker/dealer quotes or alternative pricing sources with reasonable levels of price transparency and U.S. treasury bills.

Short-term investments consisted of the following (in thousands):

	December 31, 2023			Fair Value
	Amortized Cost	Unrealized Gains	Unrealized Losses	
Short-term investments:				
U.S. treasury bills	\$ 45,863	\$ 9	\$ (8)	\$ 45,864
U.S. government agency bonds	38,093	23	(3)	38,113
Total short-term investments:	\$ 83,956	\$ 32	(11)	\$ 83,977

The Company did not have short-term investments during the year ended December 31, 2022.

The contractual maturities of the Company's short-term investments in available-for-sale securities held were as follows (in thousands):

	December 31, 2023
Due within one year	\$ 83,977

Valuation of preferred stock tranche right liabilities

The preferred stock tranche right liabilities in the table above are composed of the fair value of obligations to issue Series A and Series B Preferred Stock (Note 8). The fair value of the preferred stock tranche right liabilities was based on significant inputs not observable in the market, which represented a Level 3 measurement within the fair value hierarchy.

Series A preferred stock tranche right liability

The fair value of the Series A preferred stock tranche right liability was determined using a probability-weighted expected return method as it represents a contingent commitment for the Milestone Shares (as defined in Note 8). The valuation considered as inputs the fair value per share of the Series A Preferred Stock as of each measurement date, the fair value per share of the Series A Preferred Stock if the milestone is not met, probability of meeting certain milestone events, the expected time until certain milestone events would be met, and the discount rate.

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The most significant assumptions in the valuation model impacting the fair value of the preferred stock tranche right liability were the fair value of the Company's Series A Preferred Stock and the probability and expected timing of achieving certain milestone events as of the measurement dates. The Company determined the fair value per share of the underlying Series A Preferred Stock by taking into consideration the most recent sales of its Series A Preferred Stock, results obtained from third-party valuations and additional factors the Company deemed relevant. In October 2022, the interim second closing of the Series A Preferred Stock was completed and the fair value of each share of Series A Preferred Stock was \$8.80 per share. As of December 31, 2022, the fair value of the Series A Preferred Stock was \$9.53 per share. In February 2023, upon satisfaction of certain conditions, the second closing of the Series A Preferred Stock was completed and the associated Series A preferred stock tranche right liability was settled. The fair value of Series A Preferred Stock was \$10.04 per share upon the second closing. Changes in these inputs can have a significant impact on the fair value of the preferred stock tranche right liability.

The following table presents the assumptions used in the probability-weighted expected return model to determine the fair value of the Series A preferred stock tranche right liability during the years presented:

	<u>2023</u>	<u>2022</u>	
	<u>February</u>	<u>October</u>	<u>December</u>
Probability of achieving milestone	100.0%	74.0%	82.0%
Value of Preferred Stock if milestone not met	N/A	\$2.64	\$2.85
Estimated time until milestone is achieved (in years)	N/A	0.25	0.13
Discount rate	N/A	3.3%	4.4%

Series B preferred stock tranche right liability

The fair value of the Series B preferred stock tranche right liability was determined using an option pricing model as it represents an option for the Series B Option Shares (as defined in Note 8). The valuation considered as inputs the estimated fair value of the Series B Preferred Stock as of each valuation date, the risk-free interest rate, volatility, expected dividends, and estimated time to the tranche closing.

The most significant assumption in the valuation model impacting the fair value of the preferred stock tranche right liability is the fair value of the Company's Series B Preferred Stock as of each measurement date. The Company determined the fair value per share of the underlying Series B Preferred Stock by taking into consideration the most recent sales of its Series B Preferred Stock, results obtained from third-party valuations and additional factors the Company deemed relevant. In June 2023, the initial tranche of the Series B Preferred Stock closed with a fair value of \$13.00 per share. As of December 31, 2023, the fair value of Series B Preferred Stock was \$15.86 per share. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve for time periods approximately equal to the remaining estimated time to the tranche closing. The volatility is based on the historical volatility of publicly traded peer companies adjusted for the seniority of the Series B Preferred Stock. The expected dividend yield is based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future. Changes in these inputs can have a significant impact on the fair value of the preferred stock tranche right liability.

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The following table presents the assumptions used in the option-pricing model to determine the fair value of the Series B preferred stock tranche right liability during the year presented:

	2023	
	June	December
Expected volatility	51.0%	21.2%
Expected dividends	0.0%	0.0%
Expected term (in years)	0.80	0.25
Risk-free rate	5.3%	5.4%

The following table presents a roll-forward of the aggregate fair value of the Series A and Series B preferred stock tranche right liabilities, for which fair value is determined using Level 3 inputs (in thousands):

	Preferred Stock Tranche Right Liability	
	Series A	Series B
Fair value at December 31, 2021	\$ 7,652	\$ -
Change in fair value of preferred stock tranche right liability	77	-
Partial settlement of the Series A preferred stock tranche right liability	(782)	-
Fair value at December 31, 2022	6,947	-
Fair value of Series B preferred stock tranche right liability at issuance	-	11,774
Change in fair value of preferred stock tranche right liabilities	(6,627)	(8,900)
Final settlement of Series A preferred stock tranche right liability	(320)	-
Fair value at December 31, 2023	\$ -	\$ 2,874

4. Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31,	
	2023	2022
Prepaid research and development expense	\$ 6,436	\$ 521
Interest receivable	138	-
Prepaid employee-related costs	123	90
Other	391	233
	\$ 7,088	\$ 844

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5. Property and equipment, net

Property and equipment, net consisted of the following (in thousands):

	December 31,	
	2023	2022
Office equipment	\$ 163	\$ -
Computer equipment	36	22
Leasehold improvements	27	18
Construction in progress	-	42
	<u>226</u>	<u>82</u>
Less: Accumulated depreciation and amortization	(67)	(7)
Property and equipment, net	<u>\$ 159</u>	<u>\$ 75</u>

Depreciation and amortization expense related to property and equipment, net was less than \$0.1 million for each of the years ended December 31, 2023 and 2022.

6. Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	December 31,	
	2023	2022
Accrued employee compensation and benefits	\$ 2,168	\$ 893
Accrued external research and development expenses	1,437	2,982
Accrued consultant and professional fees	875	182
	<u>\$ 4,480</u>	<u>\$ 4,057</u>

7. Leases

As of December 31, 2023, the Company was a party to a lease related to commercial real estate under a non-cancelable lease term and a short-term lease related to commercial real estate. The Company does not have any leases that have not yet commenced that create significant rights and obligations for the lessee.

The Company has an operating lease for office space at 460 Totten Pond Road, Waltham, Massachusetts. The lease expires on June 30, 2024, after which the Company will continue to pay rent on a month-to-month basis until either party provides notice of termination. Under its lease, the Company pays a proportional share of operating expenses. Such operating expenses are subject to annual adjustment and are accounted for as variable payments in the period in which they are incurred.

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The components of lease cost, which are included in the consolidated statement of operations and comprehensive loss, were as follows (in thousands):

	Year Ended December 31,	
	2023	2022
Lease Cost:		
Operating lease cost	\$ 88	\$ 86
Short-term lease cost	202	17
Variable lease cost	9	12
Total lease cost	\$ 299	\$ 115

Supplemental disclosure of cash flow information related to leases was as follows (in thousands):

	Year Ended December 31,	
	2023	2022
Cash paid for amounts included in the measurement of lease liabilities	\$ 92	\$ 81
Right-of-use assets obtained in exchange for new operating lease liabilities	36	161

The weighted-average discount rate and remaining lease term were as follows:

	Year Ended December 31,	
	2023	2022
Weighted-average discount rate — operating leases	15.7%	10.8%
Weighted-average remaining lease term — operating leases	0.5	1.1

The maturities of operating lease liabilities were as follows (in thousands):

Year Ended December 31,	Amount
2024	\$ 46
Total lease payments	46
Less: imputed interest	1
Present value of lease liabilities	45
Less: operating lease liabilities, current portion	45
Operating lease liabilities, net of current portion	<u>\$ -</u>

8. Redeemable convertible preferred stock

The Company has issued Series A Preferred Stock and Series B Preferred Stock, which are collectively referred to as the Preferred Stock. As of December 31, 2023, the Company authorized the issuance of 31,764,693 shares of Preferred Stock, par value of \$0.001 per share, of which 20,000,000 have been designated Series A Preferred Stock and 11,764,693 have been designated Series B Preferred Stock. As of December 31, 2022, the Company authorized the issuance of 20,000,000 shares of Preferred Stock, par value of \$0.001 per share, all of which were designated Series A Preferred Stock.

Issuance and sale of Series A redeemable convertible preferred stock

In October 2021, the Company executed the Series A Preferred Stock Purchase Agreement (the “Series A Agreement”) to issue and sell up to 20,000,000 shares of Series A Preferred Stock at a price of \$10.00 per share.

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In the initial closing in October 2021, the Company issued 11,000,000 shares of Series A Preferred Stock resulting in gross cash proceeds of \$110.0 million and incurred \$0.2 million of issuance costs. Pursuant to the Series A Agreement, the Company was obligated to issue and the Series A investors were obligated to purchase an additional 9,000,000 shares of Series A Preferred Stock (“Milestone Shares”) at the same purchase price of \$10.00 per share (the “Series A preferred stock tranche right”), after the initial closing and upon the satisfaction of certain conditions at a date which would occur at the earlier of (i) immediately prior to the Company’s first underwritten public offering of its common stock under the Securities Act; (ii) the resolution of the board of directors that the pharmacokinetics, pharmacodynamics, immunogenicity and safety profile of verekitug (formerly referred to as ASP7266), when administered as multiple ascending doses, supports further clinical development (“Second Closing Milestone”) has been achieved; or (iii) the written consent of the purchasers holding a majority of the Series A Preferred Stock that the Second Closing Milestone has been waived (collectively, the “Second Closing”). The board of directors may determine at any time prior to the Second Closing to issue and sell up to 1,000,000 of the Milestone Shares at a price of \$10.00 per share for gross cash proceeds of \$10.0 million (“Interim Second Closing”) and the number of Milestone Shares to be issued in the Second Closing will be reduced accordingly. Upon the initial closing of the Series A Preferred Stock, the Company recorded a preferred stock tranche right liability of \$7.8 million. The fair value of the Series A preferred stock tranche right was allocated from the gross cash proceeds of \$110.0 million of the Series A Preferred Stock issuance, and the residual value was then allocated to the Series A Preferred Stock.

In October 2022, the Interim Second Closing was completed and 1,000,000 of the Milestone Shares on a pro-rata basis to the purchasers of the Series A Preferred Stock were issued at a price of \$10.00 per share, which resulted in gross cash proceeds of \$10.0 million and partial settlement of the Series A preferred stock tranche right liability of \$0.8 million (Note 3). As a result of this issuance, the related Series A Preferred Stock was recorded at its fair value of \$10.8 million.

In February 2023, upon the satisfaction of the Second Closing Milestone, the remaining 8,000,000 of the Milestone Shares on a pro-rata basis to the purchasers of the Series A Preferred Stock were issued at a price of \$10.00 per share, which resulted in gross cash proceeds of \$80.0 million. As a result of this issuance, the Series A preferred stock tranche right liability of \$0.3 million was settled and the Series A Preferred Stock was recorded at its fair value of \$80.3 million.

Issuance and sale of Series B redeemable convertible preferred stock

In June 2023, the Company executed the Series B Agreement to issue and sell up to 11,764,693 shares of Series B Preferred Stock at a price of \$17.00 per share. In the initial closing in June 2023, the Company issued 2,941,170 shares of Series B Preferred Stock resulting in gross cash proceeds of \$50.0 million and incurred \$0.6 million of issuance costs, of which \$0.1 million was allocated to the preferred stock tranche right liability and recognized in the consolidated statement of operations and comprehensive loss as general and administrative expense. Pursuant to the Series B Agreement, the Company has the right (“Series B Option”) to issue and sell an additional 8,823,523 shares of Series B Preferred Stock (“Series B Option Shares”) at the same price of \$17.00 per share after the initial closing but prior to March 31, 2024 upon approval of at least six (6) board of directors of which at least one (1) has to be appointed by the holders of Series B Preferred Stock. If the Company does not exercise the Series B Option prior or at a date which would occur at the earlier of (i) March 31, 2024 or (ii) the closing of an acquisition agreement signed prior to March 31, 2024, the holders of Series B Preferred Stock will have the right but not obligation to require the Company to issue and sell the Series B Option Shares at the same purchase price of \$17.00 per share (the “Series B preferred stock tranche right”). Upon the initial closing of the

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Series B Preferred Stock, the Company recorded a preferred stock tranche right liability of \$11.8 million and a corresponding reduction to the carrying value of the Series B Preferred Stock. The fair value of the Series B preferred stock tranche right was allocated from the gross cash proceeds of \$50.0 million of the Series B Preferred Stock issuance, and the residual value was then allocated to the Series B Preferred Stock. As of December 31, 2023, none of the Series B preferred stock tranche right had been settled.

Upon issuance of the Preferred Stock, the Company assessed the embedded conversion and liquidation features of the securities and determined that such features did not require the Company to separately account for these features.

Preferred Stock consisted of the following (dollar amounts in thousands):

	December 31, 2023				
	Preferred Stock Authorized	Preferred Stock Issued and Outstanding	Carrying Value	Liquidation Preference	Common Stock Issuable Upon Conversion
Series A Preferred Stock	20,000,000	20,000,000	\$ 193,143	\$ 216,293	20,000,000
Series B Preferred Stock	11,764,693	2,941,170	37,792	51,425	2,941,170
	<u>31,764,693</u>	<u>22,941,170</u>	<u>\$ 230,935</u>	<u>\$ 267,718</u>	<u>22,941,170</u>
	December 31, 2022				
	Preferred Stock Authorized	Preferred Stock Issued and Outstanding	Carrying Value	Liquidation Preference	Common Stock Issuable Upon Conversion
Series A Preferred Stock	20,000,000	12,000,000	\$ 112,823	\$ 126,886	12,000,000
	<u>20,000,000</u>	<u>12,000,000</u>	<u>\$ 112,823</u>	<u>\$ 126,886</u>	<u>12,000,000</u>

The holders of the Preferred Stock have the following rights and preferences:

Dividends

The holders of Preferred Stock are entitled to a cumulative dividend from and after the date of the share issuance at the rate per annum of 5% of the Original Issue Price (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock), provided that the total accrued amount will not exceed 15% of the Original Issue Price in aggregate (the "Accruing Dividend"). Such dividends shall be accrued, whether or not declared.

In the event of any dividend being payable to common stockholders, the holders of Preferred Stock shall be entitled to receive, prior to any such dividend being paid to the common stockholders, the greater of (i) the Accruing Dividend then accrued and not previously paid, and (ii) the amount of any dividend being paid to the common stockholders (determined on an as-converted basis with respect to the holders of Preferred Stock).

Voting rights

The holders of the Preferred Stock are entitled to vote together with all other classes and series of stock as a single class on all matters, except those matters requiring a separate class vote, and are entitled to the number of votes equal to the number of shares of common stock into which each share of the applicable series of Preferred Stock is then convertible. The holders of Series A Preferred Stock as a separate class are entitled to elect four

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(4) board of directors, and the holders of Series B Preferred Stock as a separate class are entitled to elect two (2) board of directors.

Liquidation preference

In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company or in the event of a Deemed Liquidation Event (“DLE”) which is defined as a merger or consolidation in which the Company issues shares of its capital stock (other than one in which stockholders of the Company own a majority by voting power of the outstanding shares of the surviving or acquiring corporation), and the sale, lease, transfer, exclusive license or other disposition of substantially all of the Company’s assets, the holders of shares of Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Company available for distribution to its shareholders or consideration payable to stockholders in such DLE or out of the available proceeds as follows:

- Before any payment is made to the holders of Series A Preferred Stock and common stock, an amount equal to any Accruing Dividends on the Series B Preferred Stock accrued but unpaid, whether or not declared, together with any other dividends that are declared but unpaid (“Series B Dividend Payment”);
- If the assets available are not sufficient for the Company to pay the Series B Dividend Payment to the holders of Series B Preferred Stock in full, holders of Series B Preferred Stock will share ratably in the assets available for distribution;
- After the Series B Dividend Payment is paid in full, holders of Preferred Stock will be entitled to be paid out of the assets of the Company available for distribution to its stockholders before any payment is made to the holders of common stock, on a pari passu basis, an amount per share equal to (i) with respect to the Series A Preferred Stock, the greater of (a) the Original Issue Price, plus any Accruing Dividends on the Series A Preferred Stock accrued but unpaid, whether or not declared, together with any other dividends declared but unpaid, or (b) such amount per share as would have been payable had all shares of Series A Preferred Stock been converted in common stock, and (ii) with respect to the Series B Preferred Stock, (1) the greater of (a) the Original Issue Price, plus any Accruing Dividends on the Series B Preferred Stock accrued but unpaid, whether or not declared, together with any other dividends declared but unpaid thereon, or (b) such amount per share as would have been payable had all shares of Series B Preferred Stock been converted in common stock, less (2) Series B Dividend Payment that was paid. (“Liquidation Amount”);
- If the assets available are not sufficient for the Company to pay holders of Preferred Stock the Liquidation Amount in full, holders of Preferred Stock will share ratably in the assets available for distribution;
- After payment of Liquidation Amounts is paid in full to the holders of Preferred Stock, the remaining assets of the Company available for distribution to its stockholders, or in the case of a DLE, the consideration not payable to the holders of shares of Preferred Stock or the remaining available proceeds, will be distributed among the holders of the shares of common stock on a pro rata basis.

The “Original Issue Price” is defined as (i) with respect to the Series A Preferred Stock, \$10.00 per share, and (ii) with respect to the Series B Preferred Stock, \$17.00 per share.

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Conversion

Optional conversion

Each share of Preferred Stock is convertible at the option of the holder and at any time into common stock as determined by dividing the Preferred Stock Original Issue Price by the Preferred Stock Conversion Price. “Conversion Price” is defined as initially the applicable Original Issue Price for the applicable series of Preferred Stock, subject to certain adjustments in the event of any down round, stock dividend, stock split, combination or other similar recapitalization.

Mandatory conversion

Each share of Preferred Stock will automatically be converted into shares of common stock, at the conversion ratio of dividing the Original Issue Price by the Preferred Stock Conversion Price, upon either (a) the closing of the sale of shares of common stock to the public at a price of at least \$22.10 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the common stock) in a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least \$100.0 million of gross proceeds to the Company and after which the common stock is listed on the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange or (b) the date and time, or the occurrence of an event specified by vote or written consent of the Requisite Holders (which is defined as at least a majority of the outstanding shares of Preferred Stock, voting together as a single class on an as converted to common stock basis, which majority must include holders of at least a majority of the outstanding shares of Series B Preferred Stock) voting together as a single class on an as converted to common stock basis, then all outstanding shares of Preferred Stock will automatically be converted into shares of common stock, at the then effective conversion rate and such shares of Preferred Stock may not be reissued by the Company.

Special mandatory conversion

Pursuant to the terms of the Series A Agreement, if a Series A Preferred Shareholder fails to purchase all of the Milestone Shares allocated to such shareholder at or prior to the Second Closing Milestone or breaches its obligations set forth in the Series A Agreement, then such investor will be deemed a Defaulting Purchaser. As of December 31, 2023, all of the Milestone Shares had been issued without triggering the special mandatory conversion provision under the Series A Agreement.

Pursuant to the terms of the Series B Agreement, if a Series B Preferred Shareholder fails to purchase all of the Series B Option Shares allocated to such shareholder at or prior to the closing of the Series B Option or breaches its obligations set forth in the Series B Agreement, then such investor will be deemed a Defaulting Purchaser. Each ten shares of Preferred Stock held by the Defaulting Purchaser will automatically, and without any further action on the part of such holder, be converted into one share of common stock. In April 2024, all of the Series B Option Shares had been issued without triggering the special mandatory conversion provision under the Series B Agreement (Note 18).

Modification to Series A preferred stock

In June 2023, in connection with the issuance of the Company’s Series B Preferred Stock, the rights of the Company’s Series A Preferred Stock were amended to entitle holders to a cumulative dividend from and after the

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date of the share issuance at the rate per annum of 5% of the Original Issue Price (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock), provided that the total accrued amount will not exceed 15% of the Original Issue Price in aggregate. The dividend replaced the original accrued return definition within the liquidation preference terms of the Series A Preferred Stock. Previously, holders were entitled to a liquidation preference per share equal to the greater of (a) the Original Issue Price, plus an accrued return of 5% of the Original Issue Price per annum, provided that the total of such accrued return shall not exceed 15% of the Original Issue Price in the aggregate, or (b) such amount per share as would have been payable had all shares of Series A Preferred Stock been converted in common stock.

The changes to the rights of the Company's Series A Preferred Stock were not considered to be a significant change to the contractual terms of the Company's Series A Preferred Stock because the accrued return of the liquidation preference and the cumulative dividend definitions will result in the same amount to be received in a liquidation event, and accordingly, the Company accounted for the change as a modification.

9. Common stock

Each share of common stock entitles the holder to one vote on all matters submitted to a vote of the Company's stockholders. Common stockholders are entitled to receive dividends, as may be declared by the board of directors, if any, subject to the preferential dividend rights of the Preferred Stock. When dividends are declared on shares of common stock, the Company must declare at the same time a dividend payable to the holders of Preferred Stock equivalent to the dividend amount they would receive if each share of Preferred Stock were converted into common stock. The Company may not pay dividends to common stockholders until all dividends accrued or declared but unpaid on the Preferred Stock have been paid in full. As of December 31, 2023 and 2022, no dividends were declared.

As of December 31, 2023 and 2022, the Company's amended and restated certificate of incorporation authorized the issuance of 40,664,346 and 28,000,000 shares, respectively, of \$0.001 par value common stock. As of December 31, 2023 and 2022, there were 2,852,700 shares and 2,800,000 shares of common stock issued and outstanding, respectively.

In November 2023, the Company issued 20,000 shares of common stock to a related party investor. The Company recorded stock-based compensation expense of \$0.1 million in connection with the issuance of these shares (Note 16).

As of December 31, 2023 and 2022, the Company had reserved 36,274,554 and 24,023,529 shares of common stock, respectively, for the conversion of shares of Preferred Stock into common stock (including committed but unissued shares under future tranche obligations for the Preferred Stock), the exercise of outstanding stock options for common stock, and the issuance of common stock options remaining available for grant under its equity incentive plan.

10. Stock-based compensation

Stock incentive plan

In December 2021, the board of directors approved the 2021 Stock Option and Grant Plan (the "2021 Plan") under which the Company may grant incentive stock options, nonqualified stock options, restricted stock awards,

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unrestricted stock awards and restricted stock units (collectively, the “Awards”) to among others, members of the board of directors, employees, consultants and other key persons to the Company and its affiliates. The 2021 Plan is administered by the board of directors, or at the discretion of the board of directors, by a committee of the board.

As of December 31, 2023 and 2022, the total number of shares of common stock reserved for issuance under the 2021 Plan was 4,542,561 shares and 4,023,529 shares, respectively. Shares of unused common stock underlying any Awards that are forfeited, canceled or reacquired by the Company prior to vesting will again be available for the grant of awards under the 2021 Plan. Shares underlying any awards that are forfeited, canceled, or reacquired by the Company prior to vesting, satisfied without the issuance of stock or otherwise terminated and shares that are withheld upon exercise of an option of settlement of an award to cover the exercise price or tax withholding shall be added back to the shares available for issuance under the 2021 Plan. As of December 31, 2023 and 2022, the Company had 538,319 shares and 944,881, respectively, remaining available for grant under the 2021 Plan.

The exercise price for stock options granted may not be less than the fair market value of the Company’s common stock on the date of grant, as determined by the board of directors, or at least 110% of the fair market value of the Company’s common stock on the date of grant in the case of an incentive stock option granted to an employee who owns stock representing more than 10% of the voting power of all classes of stock as determined by the board of directors as of the date of grant (“10% Owner”). The Company’s board of directors determines the fair value the Company’s common stock, taking into consideration its most recently available valuation of common stock performed by third parties as well as additional factors which may have changed since the date of the most recent contemporaneous valuation through the date of grant. Stock options granted under the 2021 Plan expire after ten years, or 5 years for a 10% Owner, and typically vest over a four-year period with the first 25% vesting upon the first anniversary of a specified vesting commencement date and the remainder vesting in 36 equal monthly installments over the succeeding three years, contingent on the recipient’s continued employment or service.

Fair value inputs

The fair value of stock option grants is estimated using the Black-Scholes option-pricing model. The Company historically has been a private company and lacks company-specific historical and implied volatility information. Therefore, it estimates its expected stock volatility based on the historical volatility of a publicly traded set of peer companies and expects to continue to do so until such time as it has adequate historical data regarding the volatility of its own traded stock price. The expected option term is calculated based on the simplified method for awards with service-based conditions, which uses the midpoint between the vesting date and the contractual term, as the Company does not have sufficient historical data to develop an estimate based on participant behavior. The risk-free interest rate is determined by reference to the U.S. Treasury yield curve in effect at the time of grant of the award for time periods approximately equal to the expected term of the award. Expected dividend yield is based on the fact that the Company has never paid cash dividends and does not expect to pay any cash dividends in the foreseeable future.

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The following table presents, on a weighted-average basis, the assumptions used in the Black-Scholes option-pricing model to determine the fair value of stock options granted:

	Year Ended December 31,	
	2023	2022
Per share fair value of common stock	\$ 4.73	\$ 3.59
Expected volatility	77.0%	78.3%
Expected dividends	0%	0%
Expected term (in years)	6.3	6.4
Risk-free rate	1.94%	0.82%

Stock options

The Company generally grants stock-based awards with service-based vesting. During the year ended December 31, 2022, the Company granted performance-based stock options to certain employees and directors for the purchase of an aggregate 1,011,747 shares of common stock with a vesting commencement date contingent upon the achievement of the Second Closing Milestone of the Series A Preferred Stock, which was achieved in February 2023. The Company determined that it met all the conditions to establish a grant date for these performance-based stock options at the original issuance date. The vesting of the performance-based stock options is also subject to the grantees' continued service until the fourth anniversary of the Second Closing Milestone.

There was no compensation expense related to these performance-based options recognized during the year ended December 31, 2022, as the achievement of the Second Closing Milestone was not considered probable for accounting purposes on the date of grant and through the year ended December 31, 2022.

The following table summarizes the activity of stock options with service-based and performance-based vesting conditions during the year ended December 31, 2023:

	Number of Options	Weighted- Average Exercise Price	Weighted- Average Remaining Contractual Term (Years)	Intrinsic Value (In Thousands)
Outstanding as of December 31, 2022	3,078,648	\$ 3.59	9.1	\$ 33
Granted	1,216,061	4.73		
Exercised	(32,700)	3.61		
Forfeited or expired	(290,467)	3.75		
Outstanding as of December 31, 2023	<u>3,971,542</u>	\$ 3.93	8.5	\$ 4,648
Options exercisable as of December 31, 2023	<u>1,627,507</u>	\$ 3.60	8.1	\$ 2,439
Vested and expected to vest as of December 31, 2023	<u>3,971,542</u>	\$ 3.93	8.5	\$ 4,648

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying stock options and the estimated fair value of the Company's common stock for those stock options that had exercise prices lower than the estimated fair value of the Company's common stock. The aggregate intrinsic value of stock options exercised during the year ended December 31, 2023 was less than \$0.1 million. There were no stock options exercised during the year ended December 31, 2022.

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The weighted-average grant-date fair value of options granted during the years ended December 31, 2023 and 2022 was \$3.23 and \$2.46, respectively.

As of December 31, 2023, there was \$6.2 million of total unrecognized compensation cost related to unvested stock options, which is expected to be recognized over a weighted-average period of 2.9 years.

The following table illustrates the classification of stock-based compensation in the consolidated statements of operations and comprehensive loss (in thousands):

	Year Ended December 31,	
	2023	2022
General and administrative ⁽¹⁾	\$ 2,354	\$ 887
Research and development	1,073	392
	<u>\$ 3,427</u>	<u>\$ 1,279</u>

(1) Includes related party amounts of \$0.1 million for the year ended December 31, 2023 (Note 16)

11. Income taxes

During the years ended December 31, 2023 and 2022, the Company did not record a provision for income taxes because it has incurred net operating losses since inception and maintains a full valuation allowance against its deferred tax assets.

A reconciliation of the U.S. federal statutory income tax rate to the Company's effective income tax rate is as follows:

	Year Ended December 31,	
	2023	2022
US Federal statutory income tax rate	(21.0) %	(21.0) %
State income taxes, net of federal benefit	(12.6)	(5.9)
Change in fair value of financial instruments	(15.9)	(0.6)
Research and development tax credits	(3.1)	—
Change in deferred tax asset valuation allowance	51.6	27.0
Stock-based compensation	1.2	0.4
Other permanent differences	(0.2)	0.1
Effective income tax rate	<u>(0) %</u>	<u>(0) %</u>

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The significant components of the Company's deferred tax assets and liabilities are summarized as follows (in thousands):

	December 31,	
	2023	2022
Deferred tax assets:		
Net operating loss carryforwards	\$ 6,985	\$ 3,975
Research and development tax credit carryforward	736	7
Operating lease liability	12	26
Accrued expenses	590	254
Stock-based compensation	861	228
Capitalized research and development expense	11,618	4,338
Amortization of acquired IPR&D	18,905	20,282
Total deferred tax assets before valuation allowance	39,707	29,110
Valuation allowance	(39,695)	(29,086)
Total deferred tax assets - net of valuation allowance	12	24
Deferred tax liabilities:		
ROU asset	(12)	(24)
Total deferred tax liabilities	(12)	(24)
Net deferred tax asset (liability)	-	-

As of December 31, 2023, the Company had federal and state net operating loss ("NOLs") carryforwards of \$25.0 million and \$27.6 million, respectively. As of December 31, 2022, the Company had federal and state NOLs carryforwards of \$14.5 million and \$14.6 million, respectively. The federal NOLs are not subject to expiration and are limited in utilization to 80% of taxable income and the state NOLs begin to expire in 2041. The Company also has federal and state research and development credits of \$0.8 million which will begin to expire in 2043 and 2037, respectively.

Management of the Company has evaluated the positive and negative evidence bearing upon the realizability of its deferred tax assets. Under the applicable accounting standards, management has considered the Company's history of losses and concluded that it is more likely than not that the Company will not recognize the benefits of its federal and state deferred tax assets. Accordingly, a full valuation allowance of \$39.7 million and \$29.1 million has been established as of December 31, 2023 and 2022, respectively.

Changes in valuation allowance for deferred tax assets during the years ended December 31, 2023 and 2022 related primarily to the increase in NOL carryforwards and capitalized research and development expenditures offset by amortization of acquired IPR&D in 2023 and were as follows (in thousands):

	Year Ended December 31,	
	2023	2022
Valuation allowance at beginning of year	\$ (29,086)	\$ (22,859)
Increases recorded to income tax provision	(10,609)	(6,227)
Valuation allowance at end of year	\$ (39,695)	\$ (29,086)

Utilization of the NOL and research and development credit carryforwards may be subject to a substantial annual limitation under Section 382 of the Internal Revenue Code of 1986 due to ownership change limitations that have

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occurred previously or that could occur in the future. These ownership changes may limit the amount of NOL and research and development credit carryforwards that can be utilized annually to offset future taxable income and tax, respectively. The Company has not completed a study to assess whether a change of ownership has occurred, or whether there have been multiple ownership changes since its formation, due to the significant cost and complexity associated with a study. There could also be additional ownership changes in the future which may result in additional limitations on the utilization of NOL carryforwards and credits.

As of December 31, 2023, the Company has not recorded any amounts for uncertain tax positions. The Company's policy is to recognize interest and penalties accrued on any uncertain tax positions as a component of income tax expense, if any, in its consolidated statements of operations and comprehensive loss. For the years ended December 31, 2023 and 2022, no estimated interest or penalties were recognized on uncertain tax positions.

The Company files tax returns as prescribed by the tax laws of the jurisdictions in which it operates. In the normal course of business, the Company is subject to examination by federal and state jurisdictions, where applicable. There are currently no pending tax examinations. The Company's tax years are still open under statute from December 31, 2020, to the present.

12. Net loss per share

Basic and diluted net loss per share attributable to common stockholders was calculated as follows (dollar amounts in thousands):

	Year Ended December 31,	
	2023	2022
Numerator:		
Net loss	\$ (20,537)	\$ (23,868)
Preferred Stock cumulative dividends	(17,718)	-
Net loss attributable to common stockholders	<u>\$ (38,255)</u>	<u>\$ (23,868)</u>
Denominator:		
Weighted-average common shares outstanding, basic and diluted	2,815,786	2,800,000
Net loss per share attributable to common stockholders, basic and diluted	<u>\$ (13.59)</u>	<u>\$ (8.52)</u>

Prior to June 2023, the Company's Series A Preferred Stock holders were not entitled to cumulative dividends. In connection with the Series B Agreement in June 2023, the Company modified the dividend rights for its Series A Preferred Stock holders such that they became entitled to cumulative dividends based on the original issuance dates of the respective Series A Preferred Stock (Note 8). As such, the Company calculated its net loss attributable to common stockholders for the year ended December 31, 2023 by adjusting its net loss for the aggregate cumulative dividends that had accrued since the original issuances dates in the period in which the Preferred Stock holders became legally entitled to such dividends. No such adjustment was made for the year ended December 31, 2022 as the holders of Series A Preferred Stock were not legally entitled to cumulative dividends until June 2023. Similarly, cumulative dividends for the Series B Preferred Stock were included in the net loss attributable to common stockholders for the year ended December 31, 2023 based on the issuance date for the Series B Preferred Stock.

The Company's potentially dilutive securities, which include stock options to purchase common stock and Preferred Stock, have been excluded from the computation of diluted net loss per share as the effect would be

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anti-dilutive. Therefore, the weighted average number of common shares outstanding used to calculate both basic and diluted net loss per share attributable to common stockholders is the same.

The following potentially dilutive securities have been excluded from the calculation of diluted net loss per share due to their anti-dilutive effect:

	Year Ended December 31,	
	2023	2022
Preferred Stock (as converted to common stock) ⁽¹⁾	22,941,170	12,000,000
Stock options to purchase common stock	3,971,542	3,078,648
	<u>26,912,712</u>	<u>15,078,648</u>

(1) As of December 31, 2023, the Preferred Stock excludes 8,823,523 shares of Series B Preferred Stock that were contingently issuable upon settlement of the Series B preferred stock tranche right liability (Note 8). As of December 31, 2022, the Preferred Stock excludes 8,000,000 shares of Series A Preferred Stock that were contingently issuable upon settlement of the Series A preferred stock tranche right liability (Note 8).

13. Commitments and contingencies

Legal matters

The Company is subject to contingent liabilities, such as legal proceedings and claims, that arise in the ordinary course of business activities. The Company accrues for loss contingencies when losses become probable and are reasonably estimable. If the reasonable estimate of the loss is a range and no amount within the range is a better estimate, the minimum amount of the range is recorded as a liability on the consolidated balance sheets. The Company does not accrue for contingent losses that, in its judgment, are considered to be reasonably possible, but not probable; however, it discloses the range of reasonably possible losses. As of December 31, 2023 and 2022, the Company was not a party to any material legal proceedings or claims and no liabilities were recorded for loss contingencies.

Contracts

The Company enters into contracts in the normal course of business with various third parties for preclinical research studies, clinical trials, testing, manufacturing, and other services. These contracts generally provide for termination upon notice and are cancellable without significant penalty or payment, and do not contain any minimum purchase commitments.

Guarantees and indemnifications

In the ordinary course of business, the Company may provide indemnification of varying scope and terms to vendors, lessors, business partners and other parties with respect to certain matters including, but not limited to, losses arising out of breach of such agreements or from intellectual property infringement claims made by third parties. In addition, the Company has entered into indemnification agreements with all board of directors that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is, in many cases, unlimited. To date, the Company has not incurred any material costs as a result of such indemnifications. The Company is not aware of

Upstream Bio, Inc.
Notes to consolidated financial statements

any claims under indemnification arrangements that could have a material effect on its financial position, results of operations or cash flows, and it has not accrued any liabilities related to such obligations in its consolidated financial statements as of December 31, 2023 and 2022.

14. Asset purchase and license agreements

Asset acquisition from Astellas Pharma, Inc.

In October 2021, the Company and Astellas Pharma, Inc. (“Astellas”) entered into an asset purchase agreement (the “Astellas Asset Purchase Agreement”). Pursuant to the Astellas Asset Purchase Agreement, the Company purchased from Astellas the compound designated by Astellas as ASP7266 (the “Compound”), the corresponding patent rights and any unregistered intellectual property rights, inventory related to the Compound, documents, data and copies of all filings and material correspondence with regulatory agencies (and the data included therein), and obtained an exclusive license under certain processes and methods of manufacture, testing, qualifying and use of the Compound to manufacture the Compound, with an upfront cash payment of \$81.1 million. The Compound was renamed by the Company as verekitug (UPB-101).

As a result, the Company will be solely responsible for conducting the global research and development of the Compound. In connection with the Astellas Asset Purchase Agreement, Maruho, co-founder of the Company and a related party, obtained from the Company an exclusive, irrevocable, perpetual, royalty-free, sublicensable license to research, develop, manufacture, and commercialize verekitug with respect to Japan at its sole expense (Note 15). There are no future payments owed to Astellas under the Astellas Asset Purchase Agreement.

Letter agreement with Astellas and Regeneron

In October 2021, in connection with the Astellas Asset Purchase Agreement, the Company, Astellas and Regeneron Pharmaceuticals, Inc. (“Regeneron”) entered into a letter agreement (the “Regeneron Letter Agreement”).

The Regeneron Letter Agreement relates to a prior Non-Exclusive License and Material Transfer Agreement (the “Terminated Regeneron License Agreement”) that Regeneron and Astellas entered into in March 2007, as amended in July 2010 and subsequently terminated in June 2018, subject to certain surviving rights and obligations of both Regeneron and Astellas. Under the Terminated Regeneron License Agreement, Astellas utilized Regeneron’s human antibody technology in its internal research programs to discover certain product candidates, including the Compound, which it sold to the Company under the Astellas Asset Purchase Agreement.

Under the Regeneron Letter Agreement, Astellas assigned and transferred to the Company and the Company assumed and accepted certain of Astellas’ surviving rights and obligations under the Terminated Regeneron License Agreement, including Astellas’ royalty payment, reporting and indemnification obligations in connection with activities conducted by or on behalf of the Company with respect to the Compound. By assuming and accepting Astellas’ surviving obligations under the Terminated Regeneron License Agreement, the Company is required to pay Regeneron mid-single-digit percentage royalties on aggregate worldwide net sales of any product developed by or on behalf of the Company that contains the Compound as an ingredient or component of the materials sold (a “Royalty Product”) during the royalty term. The royalties are determined on a product-by-product and country-by-country basis and expire on the later of (i) a specified number of years after the launch of a given Royalty Product in a given country and (ii) the expiration of the last valid claim of royalty bearing company patent rights claiming or covering such Royalty Product in such country.

Upstream Bio, Inc.
Notes to consolidated financial statements

There were no payments made to Regeneron pursuant to the Regeneron Letter Agreement during the years ended December 31, 2023 and 2022.

License agreement with Lonza

In October 2021, in connection with the Astellas Asset Purchase Agreement, the Company and Lonza Sales AG (“Lonza”) entered into a license agreement (as amended, the “Lonza License Agreement”). Pursuant to the Lonza License Agreement, the Company obtained a worldwide, non-exclusive, sublicensable (subject to Lonza’s right of pre-approval with respect to any sublicense of manufacturing activities) license to certain intellectual property rights owned by Lonza. Lonza was the originator of the master cell bank for the Compound developed by Astellas.

As consideration for the rights and licenses granted to the Company under the Lonza License Agreement, the Company agreed to pay Lonza the following:

- If Lonza manufactures the Compound for the Company, a less-than-one-percent royalty on net sales of the Compound;
- If the Company, its affiliates or strategic partner manufacture the Compound, a less-than-one-percent royalty on net sales of the Compound and a low-six-figure annual payment first payable upon initiation of a phase 2 clinical trial of the Compound and thereafter on each anniversary of such date; and
- If the Company sublicenses the manufacturing of the Compound to a third-party manufacturer, a low-single-digit percentage royalty on net sales of the Compound and a mid-six-figure annual payment per sublicense for the duration of such sublicense, first payable upon the commencement date of such sublicense.

Any royalties due under the Lonza License Agreement are payable on a country-by-country basis until ten years from the first commercial sale of the Compound in that particular country.

During the years ended December 31, 2023 and 2022, the Company did not make any royalty payments to Lonza under the Lonza License Agreement. The Company has the right to terminate the Lonza License Agreement at any time by providing 60 days prior written notice to Lonza.

During each of the years ended December 31, 2023 and 2022, the Company made an annual payment to Lonza pursuant to the Lonza License Agreement and recognized it as research and development expense in the consolidated statements of operations and comprehensive loss.

15. Revenue

Maruho agreement

In October 2021, in connection with the Astellas Asset Purchase Agreement (Note 14), the Company entered into an agreement (as amended, the “Maruho Agreement”), under which it granted Maruho an exclusive, irrevocable, perpetual, royalty-free, sublicensable (subject to its right of first negotiation) license. Pursuant to the Maruho Agreement, the Company maintains its responsibility for and controls the global research and development of the Maruho license product, including in Japan. The Company will conduct specified clinical trial activities for Japan as part of its global research and development plan. Maruho will reimburse the Company for the costs of these research and development activities, including the cost of drug supply. Maruho has the right to terminate the Maruho Agreement at any time by providing 60 days prior written notice to the Company with no substantial penalty.

Upstream Bio, Inc.
Notes to consolidated financial statements

The Company concluded that Maruho is a customer under the Maruho Agreement, and as such, the Maruho Agreement falls within the scope of ASC 606. The Company identified one performance obligation under the Maruho Agreement related to the performance of research and development services, which are an output of the Company's ordinary activities, in Japan. The Company determined that the transaction price of the Maruho Agreement as of December 31, 2023 consisted solely of variable consideration. The variable consideration was estimated using the expected value method based on the Company's experience and best judgment of the total reimbursable costs expected to be incurred through the period of performance.

The transaction price is being recognized as revenue over time using the cost-to-cost input method, which the Company believes best depicts the transfer of control to the customer. Under the cost-to-cost input method, the extent of progress towards completion is measured based on the ratio of actual costs incurred in Japan to the total estimated costs expected to satisfy the performance obligation. The calculation of the total estimated costs to fulfill the performance obligation includes costs associated with employees, clinical and development, manufacturing, and out-of-pocket costs expected to be paid to third parties. The estimate of the Company's measure of progress and estimate of variable consideration to be included in the transaction price will be updated at each reporting period as a change in estimate. The Company excludes disclosures related to the aggregate amount of the transaction price allocated to the performance obligation that are unsatisfied as of the end of the reporting period because the contract has an initial expected term of one year or less. The Company currently expects to continue providing research and development services to Maruho under the Maruho Agreement through the completion of its Phase 2 clinical trials, and if successful, through any Phase 3 clinical trials.

During the years ended December 31, 2023 and 2022, the Company received prepayments of \$2.4 million and \$0.8 million, respectively, from Maruho for research and development services to be provided by the Company under the Maruho Agreement. During the years ended December 31, 2023 and 2022, the Company recognized all of the related revenue from the prepayments, resulting in no deferred revenue as of December 31, 2023 and 2022.

16. Related parties

In October 2021, the Company entered into the Maruho Agreement (Note 15). Maruho is considered to be a related party because it is one of the co-founders of the Company and has representation on the Company's board of directors. During the years ended December 31, 2023 and 2022, the Company received payments of \$2.7 million and \$0.8 million, respectively, in cost reimbursements from Maruho. The Company recorded related party collaboration revenue of \$2.4 million and \$1.2 million during the years ended December 31, 2023 and 2022, respectively. As of December 31, 2023 and 2022, there was \$0.1 million and \$0.4 million in related party accounts receivable, respectively, representing amounts due for qualifying reimbursable expenses related to the Maruho Agreement.

In February 2023 and October 2022, the Company issued 1,000,000 shares and 125,000 shares, respectively, of Series A Preferred Stock to Maruho for gross proceeds of \$10.0 million and \$1.3 million, respectively.

In November 2023, the Company issued 20,000 shares of common stock to a related party investor. The Company recorded stock-based compensation expense of \$0.1 million in connection with the issuance of these shares (Note 9).

17. Employee benefit plan

The Company established a defined contribution savings plan under Section 401(k) of the Code. This plan covers all employees who meet minimum age and service requirements and allows participants to defer a portion of

Upstream Bio, Inc.
Notes to consolidated financial statements

their annual compensation on a pre-tax basis. Matching contributions to the plan may be made at the discretion of the Company's board of directors. The Company made \$0.2 million in contributions to the plan during the year ended December 31, 2023. The Company did not make contributions to the plan during the year ended December 31, 2022.

18. Subsequent events

The Company has evaluated all events subsequent to December 31, 2023, and through June 12, 2024, which represents the date these consolidated financial statements were available to be issued. The Company has concluded that no subsequent events have occurred that require disclosure except as disclosed below.

Modification of certain stock-based compensation awards

In February 2024, the Company entered into a separation agreement with the Company's former Chief Operating Officer ("COO"), effective March 2024. Under the terms of the separation agreement, stock options for the purchase of 136,259 shares of common stock, representing all of the vested options held by the former COO as of the date of her termination, became exercisable for one year following her termination.

In March 2024, the Company entered into a separation agreement with the Company's former Chief Executive Officer ("CEO"), effective March 2024. Under the terms of the separation agreement, vesting of options for the purchase of 36,458 shares of common stock held by the former CEO were accelerated with no change to the exercise price of such options. In addition, stock options for the purchase of 507,677 shares of common stock, representing all of the vested options held by the former CEO as of the date of her termination, became exercisable for two years following her termination.

As a result of these modifications, the Company expects to recognize approximately \$0.7 million of stock-based compensation in the first quarter of 2024.

Series B option closing

In April 2024, pursuant to the satisfaction of the Series B Option contemplated in the Series B Agreement, the Company issued and sold 8,823,523 shares of Series B Preferred Stock at a price of \$17.00 per share, which resulted in gross cash proceeds of \$150.0 million. The Company incurred less than \$0.1 million of issuance costs in connection with the Series B Option closing.

Increase in Shares Reserved for Issuance under the 2021 Plan

In connection with the Series B Option, the Company's board of directors effected an increase of 1,520,995 in the total number of shares of common stock reserved for issuance under the 2021 Plan.

Grant of options to employees

In March and April 2024, the Company granted options for the purchase of an aggregate of 1,568,801 shares of common stock, at an exercise price of \$5.96 per share, to certain employees, including the CEO and Chief Financial Officer. The aggregate grant-date fair value of these options has not yet been determined but is expected to be recognized as stock-based compensation expense over a period of four years.

Upstream Bio, Inc.
Notes to consolidated financial statements

In April and May 2024, the Company granted options for the purchase of an aggregate of 1,435,425 shares of common stock, at an exercise price of \$6.91 per share, to certain employees, including the CEO. The aggregate grant-date fair value of these options has not yet been determined but is expected to be recognized as stock-based compensation expense over a period of four years.

shares



Common stock

Preliminary prospectus

J.P. Morgan

TD Cowen

Piper Sandler

William Blair

Through and including _____, 2024 (the 25th day after the date of this prospectus), all dealers effecting transactions in our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

_____, 2024

Part II

Information not required in prospectus

Item 13. Other expenses of issuance and distribution.

The following table sets forth the fees and expenses, other than underwriting discounts and commissions, payable in connection with the registration of the common stock hereunder. All amounts are estimates except for the Securities and Exchange Commission (the "SEC") registration fee, the Financial Industry Regulatory Authority, Inc. ("FINRA") filing fee and The Nasdaq Global Market ("Nasdaq") listing fee.

	Amount paid or to be paid
SEC registration fee	\$ *
FINRA filing fee	*
Nasdaq listing fee	*
Printing and mailing expenses	*
Legal fees and expenses	*
Accounting fees and expenses	*
Transfer agent and registrar fees and expenses	*
Miscellaneous expenses	*
Total	\$ *

* To be completed by amendment.

Item 14. Indemnification of directors and officers.

Section 145 of the Delaware General Corporation Law ("DGCL") authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We will adopt provisions in our certificate of, which will become effective immediately prior to the completion of this offering, and our second amended and restated bylaws, which will become effective upon effectiveness of the registration statement of which this prospectus forms a part, that limit or eliminate the personal liability of our directors and officers to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, our directors and officers will not be personally liable to us or our stockholders for monetary damages or breach of fiduciary duty as directors or officers, except for liability for:

- any breach of their duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- for our directors, any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions;

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- any transaction from which the director derived an improper personal benefit; or
- for our officers, any derivative action by or in the right of the corporation.

These limitations of liability do not alter director and officer liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our second amended and restated bylaws will provide that:

- we will indemnify our directors, officers and, in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
- we will advance reasonable expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into indemnification agreements with each of our directors and intend to enter into such agreements with our executive officers. These agreements provide that we will indemnify each of our directors, our executive officers and, at times, their affiliates to the fullest extent permitted by Delaware law. We will advance expenses, including attorneys' fees (but excluding judgments, fines and settlement amounts), to each indemnified director, executive officer or affiliate in connection with any proceeding in which indemnification is available and we will indemnify our directors and officers for any action or proceeding arising out of that person's services as a director or officer brought on behalf of us or in furtherance of our rights. Additionally, certain of our directors or officers may have certain rights to indemnification, advancement of expenses or insurance provided by their affiliates or other third parties, which indemnification relates to and might apply to the same proceedings arising out of such director's or officer's services as a director referenced herein. Nonetheless, we have agreed in the indemnification agreements that our obligations to those same directors or officers are primary and any obligation of such affiliates or other third parties to advance expenses or to provide indemnification for the expenses or liabilities incurred by those directors are secondary.

We also maintain general liability insurance which covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act of 1933, as amended (the "Securities Act").

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification of us and our directors and officers by the underwriters against certain liabilities under the Securities Act and the Securities Exchange Act of 1934.

Item 15. Recent sales of unregistered securities.

In the three years preceding the filing of this registration statement, we have issued the following securities that were not registered under the Securities Act:

(a) Issuances of capital stock

Set forth below is information regarding securities we have issued within the past three years that were not registered under the Securities Act.

In October 2021, we issued and sold an aggregate of 1,200,000 shares of common stock to accredited investors for no consideration.

In October 2021, we issued and sold an aggregate of 11,000,000 shares of Series A redeemable convertible preferred stock to accredited investors at a purchase price of \$10.00 per share for an aggregate purchase price of \$110.0 million.

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In October 2022, in connection with the interim milestone closing of our Series A redeemable convertible preferred stock financing, we issued and sold an aggregate of 1,000,000 shares of Series A redeemable convertible preferred stock to accredited investors at a purchase price of \$10.00 per share for an aggregate purchase price of \$10.0 million.

In February 2023, in connection with the second milestone closing of our Series A redeemable convertible preferred stock financing, we issued and sold an aggregate of 8,000,000 shares of Series A redeemable convertible preferred stock to accredited investors at a purchase price of \$10.00 per share for an aggregate purchase price of \$80.0 million.

In June 2023, we issued and sold an aggregate of 2,941,170 shares of our Series B redeemable convertible preferred stock to accredited investors at a purchase price of \$17.00 per share for an aggregate purchase price of \$50.0 million.

In April 2024, in connection with the Series B option closing of our Series B redeemable convertible preferred stock financing, we issued and sold an aggregate of 8,823,523 shares of our Series B redeemable convertible preferred stock to accredited investors at a purchase price of \$17.00 per share for an aggregate purchase price of \$150.0 million.

No underwriters were involved in the foregoing sales of securities. Unless otherwise stated, the sales of securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act, including Regulation D and Rule 506 promulgated thereunder, as transactions by an issuer not involving a public offering. All of the purchasers in these transactions represented to us in connection with their purchase that they were acquiring the securities for investment and not distribution, that they could bear the risks of the investment and could hold the securities for an indefinite period of time. Such purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration or an available exemption from such registration. All of the foregoing securities are deemed restricted securities for the purposes of the Securities Act.

(b) Grants and exercises of stock options

Between January 2, 2022 and December 31, 2023, we granted stock options to purchase an aggregate of 4,384,665 shares of our common stock, with a weighted-average exercise price of \$3.91 per share, to employees, directors and consultants pursuant to the 2021 Stock Option and Grant Plan ("2021 Plan"). From January 1, 2024 through the date of this registration statement, we granted stock options to purchase an aggregate of 3,013,226 shares of our common stock, with a weighted-average exercise price of \$6.42 per share, to employees, directors and consultants pursuant to the 2021 Plan.

From January 1, 2022 through the date of this registration statement, 58,620 shares of common stock have been issued upon the exercise of stock options by our employees and former employees, which were granted pursuant to the 2021 Plan for aggregate consideration of approximately \$0.2 million.

The issuances of the securities described above were deemed to be exempt from registration pursuant to Section 4(a)(2) of the Securities Act or Rule 701 promulgated under the Securities Act as transactions pursuant to compensatory benefit plans. The shares of common stock issued upon the exercise of options are deemed to be restricted securities for purposes of the Securities Act.

Item 16. Exhibits and financial statement schedules.

(a) Exhibits

Exhibit number	Description
1.1*	Form of Underwriting Agreement.
3.1	Second Amended and Restated Certificate of Incorporation, as amended and currently in effect.
3.2*	Form of Third Amended and Restated Certificate of Incorporation, to be in effect immediately prior to the completion of this offering.
3.3	Amended and Restated Bylaws, as amended and currently in effect.
3.4*	Form of Second Amended and Restated Bylaws, to be in effect upon the effectiveness of this registration statement.
4.1*	Specimen Common Stock Certificate.
4.2*	Amended and Restated Investors' Rights Agreement, among the registrant and certain of its stockholders, dated June 6, 2023.
5.1*	Opinion of Goodwin Procter LLP.
10.1#	2021 Stock Option and Grant Plan, as amended, and form of award agreements thereunder.
10.2*#	Upstream Bio, Inc. 2024 Stock Option and Incentive Plan and form of award agreements thereunder.
10.3*#	Upstream Bio, Inc. 2024 Employee Stock Purchase Plan.
10.4*#	Form of Indemnification Agreement, by and between the registrant and each of its directors and executive officers.
10.5*#	Senior Executive Cash Incentive Bonus Plan.
10.6*#	Form of Executive Employment Agreement.
10.7*#	Non-Employee Director Compensation Policy.
10.8*#	Compensation Recovery Policy.
10.8*#†	Separation Agreement, by and between the registrant and Samantha Truex, M.B.A., dated October 14, 2021.
10.9*#†	Separation Agreement, by and between the registrant and Jennifer Beachell, dated February 26, 2024.
10.10*#	Form of Employment Agreement for Executive Officers, to be in effect upon the completion of this offering.
10.11*†+	Asset Purchase Agreement, by and between the registrant and Astellas Pharma Inc., dated October 14, 2021.
10.12*†	Letter Agreement, by and among the registrant, Astellas Pharma Inc. and Regeneron Pharmaceuticals Inc., dated October 19, 2021.
10.13†+	Exclusive License Agreement, by and between the registrant and Maruho Co., Ltd., dated October 14, 2021, as amended.
10.14*†+	License Agreement, by and between the registrant and Lonza Sales AG, dated October 21, 2021, as amended.
10.15+	License Agreement, by and between the registrant and NWALP TPOP Property Owner LLC, dated as of September 13, 2022, as amended.

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<u>Exhibit number</u>	<u>Description</u>
10.16+	Sublease Agreement, by and between the registrant and Imaging Endpoints, LLC, dated as of December 27, 2021, as amended.
21.1	Subsidiary of the registrant.
23.1*	Consent of PricewaterhouseCoopers LLP, independent registered public accounting firm.
23.2*	Consent of Goodwin Procter LLP (included in Exhibit 5.1).
24.1*	Power of attorney (included on signature page).
107.1*	Filing fee table.

* To be filed by amendment.

† Portions of this exhibit (indicated by asterisks) have been omitted pursuant to Item 601(b)(10) of Regulation S-K.

Indicates a management contract or any compensatory plan, contract or arrangement.

+ Certain exhibits and schedules to these agreements have been omitted pursuant to Item 601(a)(5) and (6) of Regulation S-K. The registrant will furnish copies of any of the exhibits and schedules to the Securities and Exchange Commission upon request.

(b) Financial statement schedules

Schedules have been omitted because the information required to be set forth therein is not applicable or is shown in the consolidated financial statements or notes thereto.

Item 17. Undertakings.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, 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 Securities and Exchange Commission (the "SEC") such indemnification is against public policy as expressed in the Securities Act of 1933, as amended, 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 of 1933, as amended, and will be governed by the final adjudication of such issue.

The registrant hereby undertakes that:

(a) The registrant will provide to the underwriter at the closing as specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriter to permit prompt delivery to each purchaser.

(b) For purposes of determining any liability under the Securities Act of 1933, as amended, the information omitted from a form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in the 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.

(c) For the purpose of determining any liability under the Securities Act of 1933, as amended, 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 on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Waltham, Massachusetts, on the _____ day of _____, 2024.

UPSTREAM BIO, INC.

By: _____
Name: E. Rand Sutherland, M.D., M.P.H.
Title: Chief Executive Officer and Director

Signatures and power of attorney

Each individual whose signature appears below hereby constitutes and appoints E. Rand Sutherland, M.D., M.P.H. and Michael Paul Gray, M.B.A. as such person's true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in such person's name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement (or any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933), and to file the same, with all exhibits thereto, and all documents in connection therewith, with the Securities and Exchange Commission granting unto each 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 and about the premises, as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact and agent, or any substitute or substitutes of any of them, 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.

Name	Title	Date
_____ E. Rand Sutherland, M.D. M.P.H.	Chief Executive Officer and Director (Principal Executive Officer)	, 2024
_____ Michael Paul Gray, M.B.A.	Chief Financial and Operations Officer (Principal Financial Officer and Principal Accounting Officer)	, 2024
_____ Ronald C. Renaud, Jr., M.B.A.	Director and Chairman	, 2024
_____ Erez Chimovits, M.B.A.	Director	, 2024
_____ H. Edward Fleming, Jr., M.D.	Director	, 2024
_____ Dayton Misfeldt	Director	, 2024

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Name	Title	Date
Liam Ratcliffe, M.B.Ch.B., Ph.D.	Director	, 2024
Marcella Kuhlman Ruddy, M.D., M.S.	Director	, 2024
Atsushi Sugita, M.B.A.	Director	, 2024
Andy Wardle, M.B.Ch.B., M.B.A.	Director	, 2024

SECOND AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
UPSTREAM BIO, INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

Upstream Bio, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the “**General Corporation Law**”),

DOES HEREBY CERTIFY:

1. That the name of this corporation is Upstream Bio, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on April 21, 2021 under the name Upstream Bio, Inc., and an Amended and Restated Certificate of Incorporation was filed on October 13, 2021.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Amended and Restated Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Amended and Restated Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows (the “**Certificate of Incorporation**”):

FIRST: The name of this corporation is Upstream Bio, Inc. (the “**Corporation**”).

SECOND: The address of the registered office of the Corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle, Delaware 19801, and its registered agent at such address is: The Corporation Trust Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 40,664,346 shares of Common Stock, \$0.001 par value per share (“**Common Stock**”) and (ii) 31,764,693 shares of Preferred Stock, \$0.001 par value per share (“**Preferred Stock**”).

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings); provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Certificate of Incorporation that relates solely to the terms of one (1) or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one (1) or more other such series, to vote thereon pursuant to this Certificate of Incorporation or pursuant to the General Corporation Law. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of this Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

11,764,693 shares of the authorized and unissued Preferred Stock of the Corporation are hereby designated “**Series B Preferred Stock**”, and 20,000,000 shares of the authorized Preferred Stock of the Corporation are hereby designated “**Series A Preferred Stock**”, in each case, with the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to “sections” or “subsections” in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth. References to “**Preferred Stock**” mean, collectively, the Series B Preferred Stock and the Series A Preferred Stock.

1. Dividends.

From and after the date of the issuance of a share of Preferred Stock, dividends at the rate per annum of five percent (5%) of the Original Issue Price (as defined below) for such share of Preferred Stock shall accrue on such share of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock), provided that the total of such accrued return shall not exceed fifteen percent (15%) of the applicable Original Issue Price in the aggregate on such share of Preferred Stock (the “**Accruing Dividends**”). Accruing Dividends shall accrue from day to day, whether or not declared, and shall be cumulative; provided, however, that except as set forth in the following sentence of this Section 1, in Section 2.1 or Section 2.2, such Accruing Dividends shall

be payable only when, as, and if declared by the Board of Directors and the Corporation shall be under no obligation to pay such Accruing Dividends. The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in this Certificate of Incorporation) the holders of the Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend, paid in accordance with Subsections 2.1 and 2.2, *mutatis mutandis*, on each outstanding share of Preferred Stock in an amount at least equal to the greater of (i) the amount of the aggregate Accruing Dividends then accrued on such share of Preferred Stock and not previously paid and (ii) (A) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Preferred Stock as would equal the product of (1) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (2) the number of shares of Common Stock issuable upon conversion of a share of Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (B) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Preferred Stock determined by (1) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (2) multiplying such fraction by an amount equal to the applicable Original Issue Price (as defined below); provided that if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one (1) class or series of capital stock of the Corporation, the dividend payable to the holders of Preferred Stock pursuant to this Section 1 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest Preferred Stock dividend. The “**Original Issue Price**” shall mean, (i) with respect to the Series A Preferred Stock, \$10.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock, and (ii) with respect to the Series B Preferred Stock, \$17.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Preferential Dividend Payments to Holders of Series B Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Series B Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, and in the event of a Deemed Liquidation Event (as defined below), the holders of shares of Series B Preferred Stock then outstanding shall be entitled to be paid out of the consideration payable to stockholders in such Deemed Liquidation Event or out of the Available Proceeds (as defined below), as applicable, before any payment shall be made to the holders of Series A Preferred Stock and Common Stock by reason of their ownership thereof, an amount per share of Series B Preferred Stock equal to any Accruing Dividends on the Series B Preferred Stock accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon (the “**Series B Dividend Payment**”). If upon any such liquidation, dissolution or winding up of the

Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series B Preferred Stock the full amount to which they shall be entitled under this [Section 2.1](#), the holders of shares of Series B Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to the Series B Dividend Payment on such shares were paid in full.

2.2 Preferential Payments to Holders of Preferred Stock. After such payment in full of the Series B Dividend Payment, if any, to the holders of Series B Preferred Stock as set forth in [Section 2.1](#), in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, the holders of shares of Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, and in the event of a Deemed Liquidation Event (as defined below), the holders of shares of Preferred Stock then outstanding shall be entitled to be paid out of the consideration payable to stockholders in such Deemed Liquidation Event or out of the Available Proceeds (as defined below), as applicable, before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, on a pari passu basis, an amount per share equal to (i) with respect to the Series A Preferred Stock, the greater of (a) the Original Issue Price, plus any Accruing Dividends on the Series A Preferred Stock accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon, or (b) such amount per share as would have been payable had all shares of Series A Preferred Stock been converted into Common Stock pursuant to [Section 4](#) immediately prior to such liquidation, dissolution, winding up or Deemed Liquidation Event; and (ii) with respect to the Series B Preferred Stock, (1) the greater of (a) the Original Issue Price of the Series B Preferred Stock, plus any Accruing Dividends on the Series B Preferred Stock accrued but unpaid thereon, whether or not declared, together with any other dividends declared but unpaid thereon or (b) such amount per share as would have been payable had all shares of Preferred Stock been converted into Common Stock pursuant to [Section 4](#) immediately prior to such liquidation, dissolution, winding up or Deemed Liquidation Event, less (2) the Series B Dividend Payment actually paid pursuant to [Section 2.1](#) (the amount payable pursuant to [Section 2.1](#) and this sentence is hereinafter collectively referred to as the “**Liquidation Amount**”). If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Preferred Stock the full amount to which they shall be entitled under this [Section 2.2](#), the holders of shares of Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.3 Payments to Holders of Common Stock. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, after the payment in full of all Liquidation Amounts required to be paid to the holders of shares of Preferred Stock, the remaining assets of the Corporation available for distribution to its stockholders or, in the case of a Deemed Liquidation Event, the consideration not payable to the holders of shares of Preferred Stock pursuant to [Section 2.1](#) or [Section 2.2](#) or the remaining Available Proceeds, as the case may be, shall be distributed among the holders of shares of Common Stock, pro rata based on the number of shares held by each such holder.

2.4 Deemed Liquidation Events.

2.4.1 Definition. Each of the following events shall be considered a “**Deemed Liquidation Event**” unless the holders of at least a majority of the outstanding shares of Preferred Stock, voting together as a single class on an as converted to Common Stock basis, which majority must include holders of at least a majority of the outstanding shares of Series B Preferred Stock, voting together as a single class on an as converted to Common Stock basis (collectively, “**Requisite Holders**”) elect otherwise by written notice sent to the Corporation at least three days prior to the effective date of any such event:

- (a) a merger or consolidation in which
 - (i) the Corporation is a constituent party; or
 - (ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, at least a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or

(b) (1) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or (2) the sale or disposition (whether by merger, consolidation or otherwise, and whether in a single transaction or a series of related transactions) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

2.4.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Subsection 2.4.1(a)(i) unless the agreement or plan of merger or consolidation for such transaction provides that the consideration payable to the stockholders of the Corporation in such Deemed Liquidation Event shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1, 2.2 and 2.3.

(b) In the event of a Deemed Liquidation Event referred to in Subsection 2.4.1(a)(ii) or 2.4.1(b), if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within 90 days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Preferred Stock no later than the 90th day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause; (ii) to require the redemption of such shares of Preferred Stock, and (iii) if the Requisite Holders so request in a written instrument delivered to the Corporation not later than 120 days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed), as determined in good faith by the Qualified Board Majority (as defined in the Series B Preferred Stock Purchase Agreement entered into by the Corporation on or about the date of the filing of this Certificate of Incorporation (the “**Series B Purchase Agreement**”)), together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders (the “**Available Proceeds**”), on the 150th day after such Deemed Liquidation Event (the “**Redemption Date**”), to redeem all outstanding shares of Preferred Stock at a price per share equal to the applicable Liquidation Amount (the “**Redemption Price**”). Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Available Proceeds are not sufficient to redeem all outstanding shares of Preferred Stock, the Corporation shall redeem, in accordance with Subsections 2.1, 2.2 and 2.3, a pro rata portion of each holder’s shares of Preferred Stock to the fullest extent of such Available Proceeds based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the Available Proceeds were sufficient to redeem all such shares, and shall redeem the remaining shares as soon as it may lawfully do so under Delaware law governing distributions to stockholders. On or before the Redemption Date, each holder of shares of Preferred Stock to be redeemed on such Redemption Date shall surrender the certificate or certificates representing such shares (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation, and thereupon the Redemption Price for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof. In the event less than all of the shares of Preferred Stock represented by a certificate are redeemed, a new certificate representing the unredeemed shares of Preferred Stock shall promptly be issued to such holder. If on the Redemption Date the Redemption Price payable upon redemption of the shares of Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment or deposited with an independent payment agent so as to be available therefor in a timely manner, then notwithstanding that the certificates evidencing any of the shares of Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of Preferred Stock shall cease to accrue after the Redemption Date and all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the Redemption Price without interest upon surrender of their certificate or certificates therefor. Prior to the distribution or redemption provided for in this Subsection 2.4.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

2.4.3 Amount Deemed Paid or Distributed. Subject to Subsection 2.4.4, the amount deemed paid or distributed to the holders of capital stock of the Corporation upon any Deemed Liquidation Event shall be the cash or the value of the property, rights or securities to be paid or distributed to such holders pursuant to such Deemed Liquidation Event. The value of such property, rights or securities shall be determined in good faith by the Qualified Board Majority.

2.4.4 Allocation of Escrow and Contingent Consideration. In the event of a Deemed Liquidation Event, if any portion of the consideration payable to the Corporation or the stockholders of the Corporation is payable only upon satisfaction of contingencies (the “**Additional Consideration**”), the definitive agreements related to such Deemed Liquidation Event shall provide that (a) the portion of such consideration that is not Additional Consideration (such portion, the “**Initial Consideration**”) shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1, 2.2 and 2.3 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable to the Corporation or the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1, 2.2 and 2.3 after taking into account the previous payment of the Initial Consideration as part of the same transaction. For purposes of this Subsection 2.4.4, consideration placed into escrow or retained as a holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event shall be deemed to be Additional Consideration.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of this Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as-converted to Common Stock basis.

3.2 Election of Directors. The holders of record of the shares of Common Stock, exclusively and as a separate class, shall be entitled to elect one director of the Corporation (the “**Common Director**”), the holders of record of the shares of Series A Preferred Stock, exclusively and as a separate class, shall be entitled to elect four directors of the Corporation (the “**Series A Directors**”), and the holders of record of the shares of Series B Preferred Stock, exclusively and as a separate class, shall be entitled to elect two directors of the Corporation (the “**Series B Directors**”), and together with the Series A Directors, the “**Preferred Directors**”). Any director elected as provided in the preceding sentence may be removed without cause by, and only by, the affirmative vote of the holders of the shares of the class or series of capital stock entitled to elect such director or directors, given either at a special meeting of such stockholders duly called for that purpose or pursuant to a written consent of stockholders. If the holders of shares of Series A Preferred Stock, Series B Preferred Stock or Common Stock, as the case may be, fail to elect a sufficient number of directors to fill all directorships for which they are entitled to elect directors, voting exclusively and as a separate class, pursuant to the first sentence of this Subsection 3.2, then

any directorship not so filled shall remain vacant until such time as the holders of the Series A Preferred Stock, Series B Preferred Stock or Common Stock, as the case may be, elect a person to fill such directorship by vote or written consent in lieu of a meeting; and no such directorship may be filled by stockholders of the Corporation other than by the stockholders of the Corporation that are entitled to elect a person to fill such directorship, voting exclusively and as a separate class. The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Preferred Stock), exclusively and voting together as a single class, shall be entitled to elect the balance of the total number of directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Subsection 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3.2.

3.3 Preferred Stock Protective Provisions. At any time when shares of Preferred Stock are outstanding, the Corporation shall not, either directly or indirectly by amendment, merger, conversion, consolidation, recapitalization, reclassification, or otherwise, do any of the following without (in addition to any other vote required by law or this Certificate of Incorporation) the written consent or affirmative vote of the Requisite Holders given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class, and any such act or transaction entered into without such consent or vote shall be null and void *ab initio*, and of no force or effect:

3.3.1 liquidate, dissolve or wind-up the business and affairs of the Corporation, effect any merger, conversion or consolidation (whether or not the Corporation or a subsidiary thereof is the surviving corporation) or any Deemed Liquidation Event, or consent to any of the foregoing, provided that if such transaction (i) is effected pursuant to a definitive agreement executed no later than the Reference Date (as defined in the Series B Purchase Agreement) and (ii) would result in upfront gross proceeds payable to each share of Series B Preferred Stock greater than or equal to \$34.00 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares and after taking into account any re-allocation of proceeds from holders of Series A Preferred Stock or Common Stock to holders of Series B Preferred Stock in connection with the applicable transaction), then "Requisite Holders" for purposes of this Subsection 3.3.1 shall mean the holders of at least a majority of the outstanding shares of Preferred Stock, voting together as a single class on an as converted to Common Stock basis;

3.3.2 amend, alter or repeal any provision of this Certificate of Incorporation or Bylaws of the Corporation;

3.3.3 create, or authorize the creation of, or issue or obligate itself to issue shares of (by recapitalization, reclassification or otherwise), any additional class or series of capital stock of the Corporation, or any other security convertible or exercisable for capital stock of the Corporation (except for Exempted Securities (as defined below)) unless the same ranks junior to Preferred Stock with respect to its rights, preferences and privileges, or increase or decrease the authorized number of shares of Preferred Stock, Common Stock or any additional class or series of capital stock of the Corporation;

3.3.4 create, or authorize the creation of, or issue or obligate itself to issue shares of (by recapitalization, reclassification or otherwise), any additional class or series of capital stock of the Corporation, or any other security convertible or exercisable for capital stock of the Corporation prior to the Call Option Closing (as defined in the Series B Purchase Agreement);

3.3.5 cause or permit any of its subsidiaries to, without approval of the Qualified Board Majority, sell, issue, sponsor, create or distribute any digital tokens, cryptocurrency or other blockchain-based assets (collectively, “**Tokens**”), including through a pre-sale, initial coin offering, token distribution event or crowdfunding, or through the issuance of any instrument convertible into or exchangeable for Tokens;

3.3.6 (i) reclassify, alter or amend any existing security of the Corporation that is pari passu with the Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to the Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to the Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with the Preferred Stock in respect of any such right, preference or privilege;

3.3.7 purchase or redeem (or permit any subsidiary to purchase or redeem) or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock or (iii) repurchases of stock from former employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof;

3.3.8 create, or authorize the creation of, or issue, or authorize the issuance of any debt security or create any lien or security interest (except for purchase money liens or statutory liens of landlords, mechanics, materialmen, workmen, warehousemen and other similar persons arising or incurred in the ordinary course of business) or incur other indebtedness for borrowed money, including but not limited to obligations and contingent obligations under guarantees, or permit any subsidiary to take any such action with respect to any debt security lien, security interest or other indebtedness for borrowed money, if the aggregate indebtedness of the Corporation and its subsidiaries for borrowed money following such action would exceed \$1,000,000;

3.3.9 create, or hold capital stock in, any subsidiary that is not wholly owned (either directly or through one or more other subsidiaries) by the Corporation, or permit any subsidiary to create, or authorize the creation of, or issue or obligate itself to issue, any shares of any class or series of capital stock, or sell, transfer or otherwise dispose of any capital stock of any direct or indirect subsidiary of the Corporation, or permit any direct or indirect subsidiary to sell, lease, transfer, exclusively license or otherwise dispose (in a single transaction or series of related transactions) of all or substantially all of the assets of such subsidiary;

3.3.10 change the principal business of the Corporation, enter new lines of business or exit the current line of business;

3.3.11 increase or decrease the authorized number of directors constituting the Board of Directors;

3.3.12 sell, assign, license, pledge or encumber (or permit any direct or indirect subsidiary of the Corporation to sell, assign, license, pledge or encumber) material technology or intellectual property, other than non-exclusive licenses granted in the ordinary course of business;

3.3.13 enter into (or permit any direct or indirect subsidiary of the Corporation to enter into) a corporate strategic relationship involving the payment, contribution or assignment by the Corporation (or any subsidiary) or to the Corporation (or any subsidiary) of, or otherwise involve any, assets or commitments with an aggregate value in excess of \$4,000,000, other than vendor transactions included in a budget that is approved by the Qualified Board Majority;

3.3.14 enter into or be a party to any transaction with any stockholder, director, officer or employee of the Corporation or any “associate” (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such person, except for (a) transactions contemplated by the License Agreement, dated as of October 14, 2021, between the Corporation and Maruho Co., Ltd., a Japanese corporation (the “**License Agreement**”), as such License Agreement is in effect on the date of the filing of this Certificate of Incorporation or (b) transactions made in the ordinary course of business and pursuant to reasonable requirements of the Corporation’s business and upon fair and reasonable terms that are approved by the Qualified Board Majority; or

3.3.15 consummate an underwritten public offering of the Common Stock under the Securities Act of 1933, as amended, that is not a Qualified Public Offering.

4. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the “**Conversion Rights**”):

4.1 Right to Convert.

4.1.1 Conversion Ratio. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the applicable Original Issue

Price by the applicable Conversion Price (as defined below) in effect at the time of conversion. The “**Conversion Price**” shall, with respect to any series of Preferred Stock, initially be equal to the applicable Original Issue Price for such series of Preferred Stock. Such initial applicable Conversion Price, and the rate at which shares of Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

4.1.2 Termination of Conversion Rights. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the final payment of any such amounts distributable on such event to the holders of Preferred Stock; provided that the foregoing termination of Conversion Rights shall not affect the amount(s) otherwise paid or payable in accordance with Section 2.1 or Section 2.2 to holders of Preferred Stock pursuant to such liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall (a) provide written notice to the Corporation’s transfer agent at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder’s shares of Preferred Stock and, if applicable, any event on which such conversion is contingent and (b), if such holder’s shares are certificated, surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder’s name or the names of the nominees in which such holder wishes the shares of Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date that is 120 days after the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such notice and, if applicable, certificates (or lost certificate affidavit and agreement) shall be the time of conversion (the “**Conversion Time**”), and the shares of Common Stock issuable upon conversion of the specified shares shall be deemed

to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and a certificate for the number (if any) of the shares of Preferred Stock represented by the surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) in accordance with Subsections 2.1 and 2.2, *mutatis mutandis*, pay all declared but unpaid dividends on the shares of Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall at all times when the Preferred Stock is outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Certificate of Incorporation. Before taking any action which would cause an adjustment reducing the applicable Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of Common Stock at such adjusted applicable Conversion Price.

4.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Subsection 4.2 and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the Conversion Price shall be made for any declared but unpaid dividends on the Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in

which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Applicable Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) “**Additional Shares of Common Stock**” shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) by the Corporation after the Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2)), collectively, “**Exempted Securities**”):

- (i) as to any series of Preferred Stock, shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on such series of Preferred Stock;
- (ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up, or subdivision, in each case, approved by the Qualified Board Majority, or other distribution on shares of Common Stock that is covered by Subsection 4.5, 4.6, 4.7 or 4.8;
- (iii) shares of Common Stock, Options or shares of Common Stock or Convertible Securities issued upon exercise of Options actually issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement that is either in effect on the Original Issue Date or approved by the Qualified Board Majority; or
- (iv) shares of Series B Preferred Stock sold pursuant to the Series B Purchase Agreement.

(b) “**Convertible Securities**” shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(c) “**Option**” shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(d) “**Original Issue Date**” shall mean the date on which the first share of Series B Preferred Stock was issued.

4.4.2 No Adjustment of Conversion Price. No adjustment in the Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the Requisite Holders agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to the applicable Conversion Price pursuant to the terms of Subsection 4.4.4, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the applicable Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such applicable Conversion Price as would have obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the applicable Conversion Price to an amount which exceeds the lower of (i) the applicable Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) the applicable Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to the applicable Conversion Price pursuant to the terms of Subsection 4.4.4 (either because the consideration per share (determined pursuant to Subsection 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the applicable Conversion Price then in effect, or because such Option or Convertible Security was issued before the Original Issue Date), are revised after the Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4.4.3(a)), shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to the applicable Conversion Price pursuant to the terms of Subsection 4.4.4, the applicable Conversion Price shall be readjusted to such applicable Conversion Price as would have obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to the applicable Conversion Price provided for in this Subsection 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Subsection 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to the applicable Conversion Price that would result under the terms of this Subsection 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to the applicable Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Applicable Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the applicable Conversion Price in effect immediately prior to such issuance or deemed issuance, then the applicable Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = (CP_1 * (A + B)) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(a) "CP2" shall mean the applicable Conversion Price in effect immediately after such issuance or deemed issuance of Additional Shares of Common Stock

(b) "CP1" shall mean the applicable Conversion Price in effect immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock;

(c) "A" shall mean the number of shares of Common Stock outstanding immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issuance or deemed issuance or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(d) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued or deemed issued at a price per share equal to CP1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP1); and

(e) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Subsection 4.4, the consideration received by the Corporation for the issuance or deemed issuance of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

- (i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;
- (ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

- (iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors of the Corporation.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

- (i) The total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by
- (ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to the applicable Conversion Price pursuant to the terms of Subsection 4.4.4, and such issuance dates occur within a period of no more than 90 days from the first such issuance to the final such issuance, then, upon the final such issuance, the applicable Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Original Issue Date effect a subdivision of the outstanding Common Stock, the applicable Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the applicable Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event the applicable Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the applicable Conversion Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the applicable Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the applicable Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) that no such adjustment shall be made if the holders of Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.3, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.4, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Qualified Board Majority) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the applicable Conversion Price) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Stock.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the applicable Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than 10 days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Preferred Stock (but in any event not later than 10 days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the applicable Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of Preferred Stock.

4.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security; or

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation, then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least 10 days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events. Upon either (a) the closing of the sale of shares of Common Stock to the public at a price of at least \$22.10 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least \$100 million of gross proceeds to the Corporation and in connection with such offering the Common Stock is listed for trading on the Nasdaq Global Market, the Nasdaq Global Select Market or the New York Stock Exchange or another exchange or marketplace approved by the Qualified Board Majority (a “**Qualified Public Offering**”), or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the Requisite Holders (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the “**Mandatory Conversion Time**”), then (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate as calculated pursuant to Subsection 4.1.1 and (ii) such shares may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock in certificated form shall

surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Subsection 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Subsection 5.2. As soon as practicable after the Mandatory Conversion Time and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and (b) pay cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

5A. Special Mandatory Conversion.

5A.1. Trigger Event. In the event any holder of Series B Preferred Stock becomes a Defaulting Purchaser (as defined in the Series B Purchase Agreement) pursuant to the terms of the Series B Purchase Agreement, then, solely with respect to the Pro Rata Portion (as defined in the Series B Purchase Agreement) of such holder's Call Option Shares (as defined in the Series B Purchase Agreement) that such holder did not purchase at the Call Option Closing (as defined in the Series B Purchase Agreement), each ten shares of Series B Preferred Stock then held immediately prior to such Default Event (as defined in the Series B Purchase Agreement) by such holder and any assignee or transferee of the shares of Series B Preferred Stock of such holder shall automatically, and without any further action on the part of such holder, be converted into one share of Common Stock, effective on the calendar day immediately following the date on which such holder became a Defaulting Purchaser. For purposes of determining the number of shares of Series B Preferred Stock held by a holder, all shares of Series B Preferred Stock held by Affiliates (as defined below) of such holder shall be aggregated with the shares of Series B Preferred Stock held by such holder (provided that no shares shall be attributed to more than one entity or person within any such group of affiliated entities or persons). Such conversion is referred to as a "**Special Mandatory Conversion.**" If any holder of Series B Preferred Stock or transferee or assignee thereof that is subject to a Special Mandatory Conversion converted any shares of Series B Preferred Stock into shares of Common Stock within one hundred and twenty (120) days prior to the Call Option Closing (as defined in the Series B Purchase Agreement), then such shares of Series B Preferred Stock that were so converted shall be deemed to have been converted pursuant to a Special Mandatory Conversion (and 90% of the number of shares of Common Stock issued upon conversion of such shares of Series B Preferred Stock shall be forfeited by such holder and its transferees and assignees and cancelled immediately).

5A.2. Procedural Requirements. Upon a Special Mandatory Conversion, each holder of shares of Series B Preferred Stock converted pursuant to Subsection 5A.1 shall be sent written notice of such Special Mandatory Conversion and the place designated for mandatory conversion of all such shares of Series B Preferred Stock pursuant to this Section 5A. Upon receipt of such notice, each holder of such shares of Series B Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that any such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Series B Preferred Stock converted pursuant to Subsection 5A.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the time of the Special Mandatory Conversion (notwithstanding the failure of the holder or holders thereof to surrender any certificates for such shares at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders therefor (or lost certificate affidavit and agreement), to receive the items provided for in the next sentence of this Subsection 5A.2. As soon as practicable after the Special Mandatory Conversion and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Series B Preferred Stock so converted, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and (b) pay cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Series B Preferred Stock converted. Such converted Series B Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Series B Preferred Stock accordingly.

5A.3. Definitions. For purposes of this Section 5A: “**Affiliate**” shall mean, with respect to any holder of shares of Preferred Stock, any person, entity or firm which, directly or indirectly, controls, is controlled by or is under common control with such holder, including, without limitation, any entity of which the holder is a partner or member, any partner, officer, director, member or employee of such holder and any venture capital fund or registered investment company now or hereafter existing of which the holder is a partner or member which is controlled by or under common control with one or more general partners, managing members or investment advisors of such holder or shares the same management company or investment advisor with such holder.

6. Redemption. The Preferred Stock is not redeemable except as expressly set forth herein.

7. Redeemed or Otherwise Acquired Shares. Any shares of Preferred Stock that are redeemed, converted or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following redemption, conversion or acquisition.

8. Waiver. Any of the rights, powers, preferences and other terms of the Preferred Stock set forth herein may be waived on behalf of all holders of Preferred Stock by the affirmative written consent or vote of the Requisite Holders.

9. Notices. Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: Subject to any additional vote required by this Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SIXTH: Subject to any additional vote required by this Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation. Each director shall be entitled to one vote on each matter presented to the Board of Directors; provided, however, that, so long as the holders of Preferred Stock are entitled to elect at least one Preferred Director, the affirmative vote of the Qualified Board Majority shall be required for the authorization by the Board of Directors of any of the matters set forth in Section 5.5 of the Amended and Restated Investors' Rights Agreement, dated as of June 6, 2023, by and among the Corporation and the other parties thereto, as such agreement may be amended from time to time.

SEVENTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

EIGHTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

NINTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

TENTH: To the fullest extent permitted by applicable law, the Corporation shall provide indemnification of (and advancement of expenses to) directors of the Corporation and the Corporation is authorized to provide indemnification of (and advancement of expenses to) officers and agents of the Corporation (and any other persons to which General Corporation Law permits the Corporation to provide indemnification) through Bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of the indemnification and advancement otherwise permitted by Section 145 of the General Corporation Law.

Any amendment, repeal or modification of the foregoing provisions of this Article Tenth shall not (a) adversely affect any right or protection of any director, officer or other agent of the Corporation existing at the time of such amendment, repeal or modification or (b) increase the liability of any director of the Corporation with respect to any acts or omissions of such director, officer or agent occurring prior to, such amendment, repeal or modification.

ELEVENTH: The Corporation renounces, to the fullest extent permitted by law, any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An “**Excluded Opportunity**” is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, employee, affiliate or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, the persons referred to in clauses (i) and (ii) are “**Covered Persons**”), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person’s capacity as a director of the Corporation while such Covered Person is performing services in such capacity. Any repeal or modification of this Article Eleventh will only be prospective and will not affect the rights under this Article Eleventh in effect at the time of the occurrence of any actions or omissions to act giving rise to liability. Notwithstanding anything to the contrary contained elsewhere in this Certificate of Incorporation, the affirmative vote of the Requisite Holders will be required to amend or repeal, or to adopt any provisions inconsistent with this Article Eleventh.

TWELFTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation’s stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising

pursuant to any provision of the Delaware General Corporation Law or the Corporation's certificate of incorporation or bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article Twelfth shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Twelfth (including, without limitation, each portion of any sentence of this Article Twelfth containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this Corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 6th day of June, 2023.

By: /s/ Samantha Truex

Name: Samantha Truex

Title: Chief Executive Officer

AMENDED AND RESTATED BYLAWS OF

UPSTREAM BIO, INC.

(As adopted on April 21, 2021, and
Amended and Restated on June 6, 2023)

ARTICLE I

OFFICES

1.1. Registered Office. The registered office of Upstream Bio, Inc. (the “*Corporation*”) within the State of Delaware shall be established and maintained at the location of the registered agent of the Corporation.

1.2. Other Offices. The Corporation may have other offices, either within or without the State of Delaware, at such place or places as the Board of Directors may from time to time appoint or the business of the Corporation may require.

ARTICLE II

STOCKHOLDERS

2.1. Place of Stockholders’ Meetings. All meetings of the stockholders of the Corporation shall be held at such place or places, within or without the State of Delaware as may be fixed by the Board of Directors from time to time or as shall be specified in the respective notices thereof. The Board of Directors may, in its sole discretion, determine that a meeting of the stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by law.

2.2. Date and Hour of Annual Meetings of Stockholders. An annual meeting of stockholders shall be held each year at such place, on such date, and at such time as the Board of Directors shall each year fix, which date shall be within thirteen (13) months of the last annual meeting of stockholders or, if no such meeting has been held, the date of incorporation.

2.3. Purposes of Annual Meetings. At each annual meeting, the stockholders entitled to vote shall elect the members of the Board of Directors for the succeeding year. Stockholders may, unless the Second Amended and Restated Certificate of Incorporation of the Corporation (as may be amended, restated, amended and restated, or otherwise modified from time to time, in accordance with the terms thereof, the “*Certificate of Incorporation*”) otherwise provides, act by written consent to elect members of the Board of Directors. At any such annual meeting any further proper business may be transacted.

2.4. Special Meetings of Stockholders. Special meetings of the stockholders or of any class or series thereof entitled to vote may be called by the Chief Executive Officer, President or by the Board of Directors, or at the request in writing by stockholders of record owning a majority of the issued and outstanding shares of Common Stock and Preferred Stock (each as defined in the Certificate of Incorporation) of the Corporation.

2.5. Notice of Meetings of Stockholders. Except as otherwise expressly required or permitted by law, not less than ten days nor more than sixty days before the date of every stockholders' meeting the Secretary shall give to each stockholder of record entitled to vote at such meeting written notice, (i) delivered by hand, (ii) sent electronically by email, provided that a copy is mailed, postage prepaid, (iii) sent by Express Mail, Federal Express or other express delivery service, or (iv) mailing thereof by first-class mail, postage prepaid, stating the place, date and hour of the meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Such notice, if mailed, shall be deemed to be given when deposited in the United States mail, postage prepaid, directed to the stockholder at his address for notices to such stockholder as it appears on the records of the Corporation.

2.6. Quorum of Stockholders. (a) Unless otherwise provided by the Certificate of Incorporation or by law, at any meeting of the stockholders, the presence in person or by proxy of holders of a majority of the shares entitled to vote thereat shall constitute a quorum. Where a separate vote by a class or series or classes or series is required, a majority of the outstanding shares of such class or series or classes or series, present in person or represented by proxy, shall constitute a quorum entitled to take action with respect to that vote on that matter, except as otherwise provided by law, the Certificate of Incorporation or these bylaws.

(b) At any meeting of the stockholders at which a quorum shall be present, a majority of those present in person or by proxy may adjourn the meeting from time to time without notice other than announcement at the meeting. In the absence of a quorum, the officer presiding thereat shall have power to adjourn the meeting from time to time until a quorum shall be present. Notice of any adjourned meeting, other than announcement at the meeting, shall not be required to be given, except as provided in paragraph (d) below and except where expressly required by law.

(c) At any adjourned session at which a quorum shall be present, any business may be transacted which might have been transacted at the meeting originally called but only those stockholders entitled to vote at the meeting as originally noticed shall be entitled to vote at any adjournment or adjournments thereof, unless a new record date is fixed by the Board of Directors.

(d) If an adjournment is for more than thirty 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.

2.7. Chairperson and Secretary of Meeting. The Chief Executive Officer, or in his absence, the President or, in his absence, a Vice President, shall preside at meetings of the stockholders. The Secretary or, in his absence, an Assistant Secretary, shall act as secretary of the meeting, or if neither is present, then the presiding officer may appoint a person to act as secretary of the meeting.

2.8. Voting by Stockholders. Except as may be otherwise provided by the Certificate of Incorporation or these bylaws, at every meeting of the stockholders each stockholder entitled to vote thereat shall be entitled to one vote for each share of stock standing in his name on the books of the Corporation on the record date for the meeting. Except as otherwise required by law, the Certificate of Incorporation or these bylaws, all elections and questions shall be decided by the vote of a majority in interest of the stockholders present in person or represented by proxy and entitled to vote at the meeting. Where a separate vote by a class or series or classes or series is required, the affirmative vote of the majority of the shares of such class or series or classes or series present in person or represented by proxy at the meeting shall be the act of such class or series or classes or series, except as otherwise provided by law, the Certificate of Incorporation or these bylaws.

2.9. Proxies. Any stockholder entitled to vote at any meeting of stockholders may vote either in person or by proxy. Every proxy shall be in writing, subscribed by the stockholder or his duly authorized attorney-in-fact, but need not be dated, sealed, witnessed or acknowledged.

2.10. Inspectors. The election of directors and any other vote by ballot at any meeting of the stockholders may be supervised by one or more inspectors. Such inspectors may be appointed by the presiding officer before or at the meeting; or if one or all inspectors so appointed shall refuse to serve or shall not be present, such appointment shall be made by the officer presiding at the meeting.

2.11. List of Stockholders. (a) At least ten days before every meeting of stockholders the Secretary shall prepare and make a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder.

(b) During ordinary business hours, for a period of at least ten days prior to the meeting, such list shall be open to examination by any stockholder for any purpose germane to the meeting, either at a place within the city where the meeting is to be held, which place shall be specified in the notice of the meeting, or if not so specified, at the place where the meeting is to be held, or 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.

(c) The list shall also be produced and kept at the time and place of the meeting during the whole time of the meeting, and it may be inspected by any stockholder who is present.

(d) The list shall presumptively determine the identity of the stockholder entitled to vote at the meeting and the number of shares held by each of them. Except as otherwise provided by law, the stock ledger shall be the only evidence as to who are the stockholders entitled to examine the stock ledger, the list required by this Section 2.11 or the books of the Corporation, or to vote in person or by proxy at any meeting of stockholders.

2.12. Procedure at Stockholders' Meetings. Except as otherwise provided by these bylaws or any resolutions adopted by the stockholders or Board of Directors, the order of business and all other matters of procedure at every meeting of stockholders shall be determined by the presiding officer. After a person or persons advise the presiding officer of their desire so to speak on a resolution, and they shall have spoken on such resolution, the presiding officer may direct a vote on such resolution without further discussion thereon at the meeting.

2.13. Action By Consent Without Meeting. Unless otherwise provided by the Certificate of Incorporation, any action required to be taken at any annual or special meeting of stockholders, or any action which may be taken at any annual or special meeting, may be taken without a meeting, without prior notice and without a vote, if a consent in writing or by electronic transmission by email, 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. 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.

ARTICLE III

DIRECTORS

3.1. Powers of Directors. The property, business and affairs of the Corporation shall be managed by its Board of Directors which may exercise all the powers of the Corporation except such as are by the law of the State of Delaware or the Certificate of Incorporation or these bylaws required to be exercised or done by the stockholders.

3.2. Number, Method of Election, Terms of Office of Directors. The number of directors who shall constitute the whole Board of Directors shall be such number as the Board of Directors shall from time to time have designated. Except as provided in the Certificate of Incorporation and these bylaws, each director shall hold office until the next annual meeting of stockholders and until his successor is elected and qualified, or until such director's earlier death, resignation or removal. Directors need not be stockholders.

3.3. Vacancies on Board of Directors; Removal. (a) Any director may resign his office at any time by delivering his resignation in writing to the Corporation. It will take effect at the time specified therein or, if no time is specified, it will be effective at the time of its receipt by the Corporation. The acceptance of a resignation shall not be necessary to make it effective, unless expressly so provided in the resignation.

(b) Except as otherwise provided in the Certificate of Incorporation or these bylaws, any vacancy, or newly created directorship resulting from any increase in the authorized number of directors, may be filled by a majority of the directors then in office, though less than a quorum, or by a sole remaining director, and any director so chosen shall hold office until the next annual election of directors by the stockholders and until his successor is duly elected and qualified or until his earlier death, resignation or removal.

(c) Except as otherwise provided in the Certificate of Incorporation or these bylaws, any director may be removed with or without cause at any time by the affirmative vote of stockholders holding of record in the aggregate at least a majority of the outstanding shares of stock of the Corporation, given at a special meeting of the stockholders called for that purpose.

3.4. Meetings of the Board of Directors. (a) The Board of Directors may hold their meetings, both regular and special, either within or without the State of Delaware.

(b) Regular meetings of the Board of Directors may be held at such time and place as shall from time to time be determined by resolution of the Board of Directors. No notice of such regular meetings shall be required. If the date designated for any regular meeting be a legal holiday, then the meeting shall be held on the next day which is not a legal holiday.

(c) The first meeting of each newly elected Board of Directors shall be held immediately following the annual meeting of the stockholders for the election of officers and the transaction of such other business as may come before it. If such meeting is held at the place of the stockholders' meeting, no notice thereof shall be required.

(d) Special meetings of the Board of Directors shall be held whenever called by direction of the Chief Executive Officer or President or at the written request of any one director.

(e) The Secretary shall give notice to each director of any special meeting of the Board of Directors by mail or electronically by email at least three days before the meeting or by telegraphing, telexing, or delivering the same not later than the day before the meeting. Unless required by law, such notice need not include a statement of the business to be transacted at, or the purpose of, any such meeting. Any and all business may be transacted at any meeting of the Board of Directors. No notice of any adjourned meeting need be given. No notice to or waiver by any director shall be required with respect to any meeting at which the director is present.

3.5. Quorum and Action. Unless provided otherwise by law or the Certificate of Incorporation, a majority of the whole Board of Directors shall constitute a quorum for the transaction of business; but if there shall be less than a quorum at any meeting of the Board of Directors, a majority of those present may adjourn the meeting from time to time. Unless provided otherwise by law or the Certificate of Incorporation, the vote of a majority of the directors present at any meeting at which a quorum is present shall be necessary to constitute the act of the Board of Directors.

3.6. Presiding Officer and Secretary of Meeting. The Chief Executive Officer or in his absence, the President, or, in his absence, a Vice President, or, in their absence, a member of the Board of Directors selected by the members present, shall preside at meetings of the Board of Directors. The Secretary shall act as secretary of the meeting, but in his absence the presiding officer may appoint a secretary of the meeting.

3.7. Action by Consent Without Meeting. 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 any committee designated by the Board of Directors, as the case may be, consent thereto in writing or electronically by email, and any such writing or writings or transmission or transmissions are filed with the minutes or proceedings of the Board of Directors or any committee designated by the Board of Directors.

3.8. Action by Telephonic Conference. Members of the Board of Directors, or any committee designated by such Board of Directors, may participate in a meeting of such Board of Directors or committee thereof by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in such a meeting shall constitute presence in person at such meeting.

3.9. Committees. (a) The Board of Directors may, by resolution or resolutions passed by a majority of the whole Board of Directors, designate one or more committees, each committee to consist of one or more of the directors of the Corporation. 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. In the absence or disqualification of any member or such committee or committees, the member or members thereof present at any such 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.

(b) Any such committee, to the extent provided in the resolution or resolutions of the Board of Directors, or in these bylaws, 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 of authority in reference to amending the Certificate of Incorporation, adopting an agreement of merger or consolidation, recommending to the stockholders the sale, lease or exchange of all or substantially all of the Corporation's property and assets, recommending to the stockholders a dissolution of the Corporation or a revocation of a dissolution, or amending the bylaws of the Corporation; and unless the resolution, these bylaws, or the Certificate of Incorporation expressly so provide, no such committee shall have the power or authority to declare a dividend or to authorize the issuance of stock.

3.10. Compensation of Directors. Directors shall receive such reasonable compensation for their service on the Board of Directors or any committees thereof, whether in the form of salary or a fixed fee for attendance at meetings, or both, with expenses, if any, as the Board of Directors may from time to time determine. Nothing herein contained shall be construed to preclude any director from serving in any other capacity and receiving compensation therefor.

ARTICLE IV

OFFICERS

4.1. Officers, Title, Elections, Terms. (a) The Corporation shall have such officers with such titles and duties as may be necessary to enable the Corporation to sign instruments and stock certificates. The officers of the Corporation shall be elected by the Board of Directors at its annual meeting following the annual meeting of the stockholders, to serve at the pleasure of the Board of Directors or otherwise as shall be specified by the Board of Directors at the time of such election and until their successors are elected and qualify.

(b) The Board of Directors may elect or appoint at any time, and from time to time, additional officers or agents, including without limitation, a Chief Executive Officer, a President, one or more Vice Presidents, a Treasurer, one or more Assistant Secretaries, one or more Assistant Treasurers, a Chairperson of the Board of Directors and one or more Vice Chairpersons of the Board of Directors, with such duties as set forth in Section 4.3 and/or as the Board of Directors may deem necessary or desirable. Such additional officers shall serve at the pleasure of the Board of Directors or otherwise as shall be specified by the Board of Directors at the time of such election or appointment. Two or more offices may be held by the same person.

(c) Any vacancy in any office may be filled for the unexpired portion of the term by the Board of Directors.

(d) Any officer may resign his office at any time. Such resignation shall be made in writing and shall take effect at the time specified therein or, if no time be specified, at the time of its receipt by the Corporation. The acceptance of a resignation shall not be necessary to make it effective, unless expressly so provided in the resignation.

(e) The salaries of all officers of the Corporation shall be fixed by the Board of Directors.

4.2. Removal of Elected Officers. Any elected officer may be removed at any time, either with or without cause, by resolution adopted at any regular or special meeting of the Board of Directors by a majority of the directors then in office.

4.3. Duties. (a) President. The President if any, shall be the principal executive officer of the Corporation and, subject to the control of the Board of Directors, shall supervise and control all the business and affairs of the Corporation. He shall, when present, preside at all meetings of the stockholders and of the Board of Directors. He shall see that all orders and resolutions of the Board of Directors are carried into effect (unless any such order or resolution shall provide otherwise), and in general shall perform all duties incident to the office of president and such other duties as may be prescribed by the Board of Directors from time to time.

(b) Vice President. Each Vice President, if any shall have such powers and perform all duties incident to the office of Vice President or as may be assigned to him by the President. In the absence of the President or in the event of his death, or inability or refusal to act, the Vice President (or in the event there be more than one Vice President, the Vice Presidents in the order designated at the time of their election, or in the absence of any designation, then in the order of their election) shall perform the duties of the President and when so acting, shall have all the powers and be subject to all the restrictions upon the President.

(c) Secretary. The Secretary if any, shall (1) keep the minutes of the meetings of the stockholders, the Board of Directors, the Executive Committee (if designated), and all other committees, if any, of which a secretary shall not have been appointed, in one or more books provided for that purpose; (2) see that all notices are duly given in accordance with the provisions of these bylaws and as required by law; (3) be custodian of the corporate records and of the seal of the Corporation and see that the seal of the Corporation is affixed to all documents, the execution of which on behalf of the Corporation under its seal, is duly authorized; (4) keep a register of the post office address of each stockholder which shall be furnished to the Secretary by such stockholder; (5) have general charge of stock transfer books of the Corporation; and (6) in general perform all duties incident to the office of secretary and such other duties as from time to time may be assigned to him by the President or by the Board of Directors.

(d) Treasurer. The Treasurer if any, shall (1) have charge and custody of and be responsible for all funds and securities of the Corporation; (2) receive and give receipts for moneys due and payable to the Corporation from any source whatsoever; (3) deposit all such moneys in the name of the Corporation in such banks, trust companies, or other depositories as shall be selected by resolution of the Board of Directors; and (4) in general perform all duties incident to the office of treasurer and such other duties as from time to time may be assigned to him by the President or by the Board of Directors. He shall, if required by the Board of Directors, give a bond for the faithful discharge of his duties in such sum and with such surety or sureties as the Board of Directors shall determine.

(e) Assistant Secretaries and Assistant Treasurers. At the request of the Secretary or in his absence or disability, one or more Assistant Secretaries designated by him or by the Board of Directors shall have all the powers of the Secretary for such period as he or it may designate or until he or it revokes such designation. At the request of the Treasurer or in his absence or disability, one or more Assistant Treasurers designated by him or by the Board of Directors shall have all the powers of the Treasurer for such period as he or it may designate or until he or it revokes such designation. The Assistant Secretaries and Assistant Treasurers, in general, shall perform such duties as shall be assigned to them by the Secretary or the Treasurer, respectively, or by the President or the Board of Directors.

ARTICLE V

CAPITAL STOCK

5.1. Stock Certificates. (a) Every holder of stock in the Corporation shall be entitled to have a certificate signed by, or in the name of, the Corporation by the Chairperson or a Vice Chairperson of the Board of Directors or the President or a Vice President, and by the Treasurer or an Assistant Treasurer or the Secretary or an Assistant Secretary, certifying the number of shares owned by such holder; provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolutions shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation.

(b) If such certificate is countersigned by a transfer agent other than the Corporation or its employee, or by a registrar other than the Corporation or its employee, the signatures of the officers of the Corporation may be facsimiles, and, if permitted by law, any other signature may be a facsimile.

(c) In case any officer who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer before such certificate is issued, it may be issued by the Corporation with the same effect as if he were such officer at the date of issue.

(d) Certificates of stock shall be issued in such form not inconsistent with the Certificate of Incorporation as shall be approved by the Board of Directors. They shall be numbered and registered in the order in which they are issued.

(e) All certificates surrendered to the Corporation shall be cancelled with the date of cancellation, and shall be retained by the Secretary, together with the powers of attorney to transfer and the assignments of the shares represented by such certificates, for such period of time as shall be prescribed from time to time by resolution of the Board of Directors.

5.2. Record Ownership. A record of the name and address of the holder of each certificate, the number of shares represented thereby and the date of issue thereof shall be made on the Corporation's books. The Corporation shall be entitled to treat the holder of any share of stock as the holder in fact thereof, and accordingly shall not be bound to recognize any equitable or other claim to or interest in any share on the part of any other person, whether or not it shall have express or other notice thereof, except as required by law.

5.3. Transfer of Record Ownership. Transfers of stock shall be made on the books of the Corporation only by direction of the person named in the certificate or his attorney, lawfully constituted in writing, and only upon the surrender of the certificate therefor and a written assignment of the shares evidenced thereby. Whenever any transfer of stock shall be made for collateral security, and not absolutely, it shall be so expressed in the entry of the transfer if, when the certificates are presented to the Corporation for transfer, both the transferor and transferee request the Corporation to do so.

5.4. Lost, Stolen or Destroyed Certificates. Certificates representing shares of the stock of the Corporation shall be issued in place of any certificate alleged to have been lost, stolen or destroyed in such manner and on such terms and conditions as the Board of Directors from time to time may authorize.

5.5. Transfer Agent; Registrar; Rules Respecting Certificates. The Corporation may maintain one or more transfer offices or agencies where stock of the Corporation shall be transferable. The Corporation may also maintain one or more registry offices where such stock shall be registered. The Board of Directors may make such rules and regulations as it may deem expedient concerning the issue, transfer and registration of stock certificates.

5.6. Fixing Record Date for Determination of Stockholders of Record. The Board of Directors may fix, in advance, a date as the record date for the purpose of determining stockholders entitled to notice of, or to vote at, any meeting of the stockholders or any adjournment thereof, or the stockholders entitled to receive payment of any dividend or other distribution or the allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock, or to express consent to corporate action in writing without a meeting, or in order to make a determination of the stockholders for the purpose of any other lawful action. Such record date in any case shall be not more than sixty days nor less than ten days before the date of a meeting of the stockholders, nor more than sixty days prior to any other action requiring such determination of the stockholders. A determination of stockholders of record entitled to notice 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.

5.7. Dividends. Subject to the provisions of the Certificate of Incorporation or applicable law, the Board of Directors may, out of funds legally available therefor at any regular or special meeting, declare and pay dividends, in cash, in property or in shares of the Corporation's capital stock, upon the capital stock of the Corporation as and when they deem expedient. Before declaring any dividend there may be set apart 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 discretion deem proper for working capital or as a reserve fund to meet contingencies or for equalizing dividends or for such other purposes as the Board of Directors shall deem conducive to the interests of the Corporation.

ARTICLE VI

SECURITIES HELD BY THE CORPORATION

6.1. Voting. Unless the Board of Directors shall otherwise order, the Chief Executive Officer, President, any Vice President, the Secretary or the Treasurer shall have full power and authority, on behalf of the Corporation, to attend, act and vote at any meeting of the stockholders of any corporation in which the Corporation may hold stock, and at such meeting to exercise any or all rights and powers incident to the ownership of such stock, and to execute on behalf of the Corporation a proxy or proxies empowering another or others to act as aforesaid. The Board of Directors from time to time may confer like powers upon any other person or persons.

6.2. General Authorization to Transfer Securities Held by the Corporation. (a) Any of the following officers, to wit: the Chief Executive Officer, President, any Vice President and the Treasurer shall be, and they hereby are, authorized and empowered to transfer, convert, endorse, sell, assign, set over and deliver any and all shares of stock, bonds, debentures, notes, subscription warrants, stock purchase warrants, evidence of indebtedness, or other securities now or hereafter standing in the name of or owned by the Corporation, and to make, execute and deliver, under the seal of the Corporation, any and all written instruments of assignment and transfer necessary or proper to effectuate the authority hereby conferred.

(b) Whenever there shall be annexed to any instrument of assignment and transfer executed pursuant to and in accordance with the foregoing paragraph (a), a certificate of the Secretary of the Corporation in office at the date of such certificate setting forth the provisions of this Section 6.2 and stating that they are in full force and effect and setting forth the names of persons who are then officers of the Corporation, then all persons to whom such instrument and annexed certificate shall thereafter come, shall be entitled, without further inquiry or investigation and regardless of the date of such certificate, to assume and to act in reliance upon the assumption that the shares of stock or other securities named in such instrument were theretofore duly and properly transferred, endorsed, sold, assigned, set over and delivered by the Corporation, and that with respect to such securities the authority of these provisions of the bylaws and of such officers is still in full force and effect.

ARTICLE VII

MISCELLANEOUS

7.1. Signatories. All checks, drafts or other orders for the payment of money, notes or other evidences of indebtedness issued in the name of the Corporation shall be signed by such officer or officers or such other person or persons as the Board of Directors may from time to time designate.

7.2. Seal. The seal of the Corporation shall be in such form and shall have such content as the Board of Directors shall from time to time determine.

7.3. Notice and Waiver of Notice. Whenever any notice of the time, place or purpose of any meeting of the stockholders, directors or a committee of the Board of Directors is required to be given under the law of the State of Delaware, the Certificate of Incorporation or these bylaws, a waiver thereof in writing, signed by the person or persons entitled to such notice, whether before or after the holding thereof, or actual attendance at the meeting in person or, in the case of any stockholder, by his attorney-in-fact, shall be deemed equivalent to the giving of such notice to such persons. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting.

7.4. Amendment of Bylaws. (a) By Board of Directors. Subject to the provisions of the Certificate of Incorporation or applicable law, the bylaws of the Corporation may be altered, amended or repealed or new bylaws may be made or adopted by the Board of Directors at any regular or special meeting of the Board of Directors; provided however, that Sections 3.3(c) and 7.4(a) of these bylaws may be altered, amended or repealed only by action of the stockholders acting pursuant to Section 7.4(b) hereof.

(b) By Stockholders. Subject to the provisions of the Certificate of Incorporation or applicable law, the bylaws of the Corporation may also be altered, amended or repealed or new bylaws may be made or adopted by the vote of a majority in interest of the stockholders represented and entitled to vote upon the election of directors, at any meeting at which a quorum is present.

7.5. Indemnity. Each person who was or is made a party to or is threatened to be made a party to or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (hereinafter a "**proceeding**"), by reason of the fact that he or she is or was a director or an officer of the Corporation designated by the Board of Directors, or, while serving in either such capacity, is or was serving at the request of the Corporation as a director, officer, or trustee of another corporation or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan (hereinafter an "**indemnitee**"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer or trustee, or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by the Corporation to the fullest extent permitted by Delaware law, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment) against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such indemnitee in connection therewith; provided, however, the Corporation shall indemnify, and shall advance expenses to, any such indemnitee in connection with a proceeding (or part thereof) initiated by such indemnitee only if such proceeding (or part thereof) was authorized by the Board of Directors of the Corporation; provided, further, that, to the fullest extent permitted by Delaware law, the Corporation may modify the extent of such indemnification by individual contracts with its directors and officers. The indemnification provided for in this Section 7.5 shall: (i) not be deemed exclusive of any other rights to which those indemnified may be entitled under these bylaws, agreement or vote of stockholders or disinterested directors or otherwise, both as to action in their official capacities and as to action in another capacity while holding such office, (ii) continue as to a person who has ceased to be a director, and (iii) inure to the benefit of the heirs, executors and administrators of a person who has ceased to be a director. The Corporation's obligation to provide indemnification under this Section 7.5 shall be offset to the extent of any other source of indemnification or any otherwise applicable insurance coverage under a policy maintained by the Corporation or any other person. The foregoing provisions of this Section 7.5 shall be deemed to be a contract between the Corporation and each director and officer who serves in such capacity at any time while these bylaws are in effect, and any repeal or modification thereof shall not affect any rights or obligations then existing with respect to any state of facts then or theretofore existing or any action, suit or proceeding theretofore or thereafter brought based in whole or in part upon any such state of facts.

7.6. Fiscal Year. Except as from time to time otherwise determined by the Board of Directors, the fiscal year of the Corporation shall end on December 31.

7.7. Gender Neutral. These bylaws shall be deemed to be gender neutral. Where appropriate herein, the references to the masculine gender shall include the feminine and neuter, the singular shall include the plural and the plural the singular, in each case to the extent that the context shall permit or may require.

7.8. Conflicts with the Certificate of Incorporation. In the event of any conflict between the provisions of the Corporation's Certificate of Incorporation and these bylaws, the provisions of the Certificate of Incorporation shall govern.

* * * * *

APPROVED BY THE BOARD OF DIRECTORS:

JUNE 6, 2023

APPROVED BY THE STOCKHOLDERS:

JUNE 6, 2023

UPSTREAM BIO, INC.

2021 STOCK OPTION AND GRANT PLAN

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the “*Plan*”). The purpose of the Plan is to encourage and enable the officers, employees, directors, Consultants and other key persons of Upstream Bio, Inc., a Delaware corporation (including any successor entity, the “*Company*”) and its Subsidiaries, upon whose judgment, initiative and efforts the Company largely depends for the successful conduct of its business, to acquire a proprietary interest in the Company.

The following terms shall be defined as set forth below:

“*Affiliate*” of any Person means a Person that directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with the first mentioned Person. A Person shall be deemed to control another Person if such first Person possesses directly or indirectly the power to direct, or cause the direction of, the management and policies of the second Person, whether through the ownership of voting securities, by contract or otherwise.

“*Award*” or “*Awards*,” except where referring to a particular category of grant under the Plan, shall include Incentive Stock Options, Non-Qualified Stock Options, Restricted Stock Awards, Unrestricted Stock Awards, Restricted Stock Units or any combination of the foregoing.

“*Award Agreement*” means a written or electronic agreement setting forth the terms and provisions applicable to an Award granted under the Plan. Each Award Agreement may contain terms and conditions in addition to those set forth in the Plan; *provided, however*, in the event of any conflict in the terms of the Plan and the Award Agreement, the terms of the Plan shall govern.

“*Board*” means the Board of Directors of the Company.

“*Cause*” shall have the meaning as set forth in the Award Agreement(s). In the case that any Award Agreement does not contain a definition of “Cause,” it shall mean (i) the grantee’s dishonest statements or acts with respect to the Company or any Affiliate of the Company, or any current or prospective customers, suppliers vendors or other third parties with which such entity does business; (ii) the grantee’s commission of (A) a felony or (B) any misdemeanor involving moral turpitude, deceit, dishonesty or fraud; (iii) the grantee’s failure to perform his assigned duties and responsibilities to the reasonable satisfaction of the Company which failure continues, in the reasonable judgment of the Company, after written notice given to the grantee by the Company; (iv) the grantee’s gross negligence, willful misconduct or insubordination with respect to the Company or any Affiliate of the Company; or (v) the grantee’s material violation of any provision of any agreement(s) between the grantee and the Company relating to noncompetition, nonsolicitation, nondisclosure and/or assignment of inventions.

“**Chief Executive Officer**” means the Chief Executive Officer of the Company or, if there is no Chief Executive Officer, then the President of the Company.

“**Code**” means the Internal Revenue Code of 1986, as amended, and any successor Code, and related rules, regulations and interpretations.

“**Committee**” means the Committee of the Board referred to in Section 2.

“**Consultant**” means any natural person that provides bona fide services to the Company (including a Subsidiary), and such services are not in connection with the offer or sale of securities in a capital-raising transaction and do not directly or indirectly promote or maintain a market for the Company’s securities.

“**Disability**” means “disability” as defined in Section 422(c) of the Code.

“**Effective Date**” means the date on which the Plan is adopted as set forth on the final page of the Plan.

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

“**Fair Market Value**” of the Stock on any given date means the fair market value of the Stock determined in good faith by the Committee based on the reasonable application of a reasonable valuation method not inconsistent with Section 409A of the Code. If the Stock is admitted to trade on a national securities exchange, the determination shall be made by reference to the closing price reported on such exchange. If there is no closing price for such date, the determination shall be made by reference to the last date preceding such date for which there is a closing price. If the date for which Fair Market Value is determined is the first day when trading prices for the Stock are reported on a national securities exchange, the Fair Market Value shall be the “Price to the Public” (or equivalent) set forth on the cover page for the final prospectus relating to the Company’s Initial Public Offering.

“**Good Reason**” shall have the meaning as set forth in the Award Agreement(s). In the case that any Award Agreement does not contain a definition of “Good Reason,” it shall mean (i) a material diminution in the grantee’s base salary except for across-the-board salary reductions similarly affecting all or substantially all similarly situated employees of the Company or (ii) a change of more than 50 miles in the geographic location at which the grantee provides services to the Company, so long as the grantee provides at least 90 days’ notice to the Company following the initial occurrence of any such event and the Company fails to cure such event within 30 days thereafter.

“**Grant Date**” means the date that the Committee designates in its approval of an Award in accordance with applicable law as the date on which the Award is granted, which date may not precede the date of such Committee approval.

“**Holder**” means, with respect to an Award or any Shares, the Person holding such Award or Shares, including the initial recipient of the Award or any Permitted Transferee.

“**Incentive Stock Option**” means any Stock Option designated and qualified as an “incentive stock option” as defined in Section 422 of the Code.

“**Initial Public Offering**” means the consummation of the first firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act covering the offer and sale by the Company of its equity securities, as a result of or following which the Stock shall be publicly held.

“**Non-Qualified Stock Option**” means any Stock Option that is not an Incentive Stock Option.

“**Option**” or “**Stock Option**” means any option to purchase shares of Stock granted pursuant to Section 5.

“**Permitted Transferees**” shall mean any of the following to whom a Holder may transfer Shares hereunder (as set forth in Section 9(a)(ii)(A)): the Holder’s child, stepchild, grandchild, parent, stepparent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships, any person sharing the Holder’s household (other than a tenant or employee), a trust in which these persons have more than fifty percent of the beneficial interest, a foundation in which these persons control the management of assets, and any other entity in which these persons own more than fifty percent of the voting interests; *provided, however*, that any such trust does not require or permit distribution of any Shares during the term of the Award Agreement unless subject to its terms. Upon the death of the Holder, the term Permitted Transferees shall also include such deceased Holder’s estate, executors, administrators, personal representatives, heirs, legatees and distributees, as the case may be.

“**Person**” shall mean any individual, corporation, partnership (limited or general), limited liability company, limited liability partnership, association, trust, joint venture, unincorporated organization or any similar entity.

“**Restricted Stock Award**” means Awards granted pursuant to Section 6 and “**Restricted Stock**” means Shares issued pursuant to such Awards which remain subject to a substantial risk of forfeiture pursuant to the terms of this Plan or the applicable Award Agreement.

“**Restricted Stock Unit**” means an Award of phantom stock units to a grantee, which may be settled in cash or Shares as determined by the Committee, pursuant to Section 8.

“**Sale Event**” means the consummation of (i) the dissolution or liquidation of the Company, (ii) the sale of all or substantially all of the assets of the Company on a consolidated basis to an unrelated person or entity, (iii) a merger, reorganization or consolidation pursuant to which the holders of the Company’s outstanding voting power immediately prior to such transaction do not own a majority of the outstanding voting power of the surviving or resulting entity (or its ultimate parent, if applicable), (iv) the acquisition of all or a majority of the outstanding voting stock of the Company in a single transaction or a series of related transactions by a Person or group of Persons, or (v) any other acquisition of the business of the Company, as determined by the Board; *provided, however*, that the Company’s Initial Public Offering, any subsequent public offering or another capital raising event, or a merger effected solely to change the Company’s domicile shall not constitute a “Sale Event.”

“**Section 409A**” means Section 409A of the Code and the regulations and other guidance promulgated thereunder.

“**Securities Act**” means the Securities Act of 1933, as amended, and the rules and regulations thereunder.

“**Service Relationship**” means any relationship as a full-time employee, part-time employee, director or other key person (including Consultants) of the Company or any Subsidiary or any successor entity (e.g., a Service Relationship shall be deemed to continue without interruption in the event an individual’s status changes from full-time employee to part-time employee or Consultant).

“**Shares**” means shares of Stock.

“**Stock**” means the Common Stock, par value \$0.001 per share, of the Company.

“**Subsidiary**” means any corporation or other entity (other than the Company) in which the Company has more than a 50 percent interest, either directly or indirectly.

“**Ten Percent Owner**” means an employee who owns or is deemed to own (by reason of the attribution rules of Section 424(d) of the Code) more than 10 percent of the combined voting power of all classes of stock of the Company or any parent of the Company or any Subsidiary.

“**Termination Event**” means the termination of the Award recipient’s Service Relationship with the Company and its Subsidiaries for any reason whatsoever, regardless of the circumstances thereof, and including, without limitation, upon death, disability, retirement, discharge or resignation for any reason, whether voluntarily or involuntarily. The following shall not constitute a Termination Event: (i) a transfer to the service of the Company from a Subsidiary or from the Company to a Subsidiary, or from one Subsidiary to another Subsidiary or (ii) an approved leave of absence for military service or sickness, or for any other purpose approved by the Committee, if the individual’s right to re-employment is guaranteed either by a statute or by contract or under the policy pursuant to which the leave of absence was granted or if the Committee otherwise so provides in writing.

“**Unrestricted Stock Award**” means any Award granted pursuant to Section 7 and “**Unrestricted Stock**” means Shares issued pursuant to such Awards.

SECTION 2. ADMINISTRATION OF PLAN; COMMITTEE AUTHORITY TO SELECT GRANTEES AND DETERMINE AWARDS

(a) Administration of Plan. The Plan shall be administered by the Board, or at the discretion of the Board, by a committee of the Board, comprised of not less than two directors. All references herein to the “**Committee**” shall be deemed to refer to the group then responsible for administration of the Plan at the relevant time (*i.e.*, either the Board of Directors or a committee or committees of the Board, as applicable).

(b) Powers of Committee. The Committee shall have the power and authority to grant Awards consistent with the terms of the Plan, including the power and authority:

(i) to select the individuals to whom Awards may from time to time be granted;

(ii) to determine the time or times of grant, and the amount, if any, of Incentive Stock Options, Non-Qualified Stock Options, Restricted Stock Awards, Unrestricted Stock Awards, Restricted Stock Units, or any combination of the foregoing, granted to any one or more grantees;

(iii) to determine the number of Shares to be covered by any Award and, subject to the provisions of the Plan, the price, exercise price, conversion ratio or other price relating thereto;

(iv) to determine and, subject to Section 12, to modify from time to time the terms and conditions, including restrictions, not inconsistent with the terms of the Plan, of any Award, which terms and conditions may differ among individual Awards and grantees, and to approve the form of Award Agreements;

(v) to accelerate at any time the exercisability or vesting of all or any portion of any Award;

(vi) to impose any limitations on Awards, including limitations on transfers, repurchase provisions and the like, and to exercise repurchase rights or obligations;

(vii) subject to Section 5(a)(ii) and any restrictions imposed by Section 409A, to extend at any time the period in which Stock Options may be exercised; and

(viii) at any time to adopt, alter and repeal such rules, guidelines and practices for administration of the Plan and for its own acts and proceedings as it shall deem advisable; to interpret the terms and provisions of the Plan and any Award (including Award Agreements); to make all determinations it deems advisable for the administration of the Plan; to decide all disputes arising in connection with the Plan; and to otherwise supervise the administration of the Plan.

All decisions and interpretations of the Committee shall be binding on all persons, including the Company and all Holders.

(c) Award Agreement. Awards under the Plan shall be evidenced by Award Agreements that set forth the terms, conditions and limitations for each Award.

(d) Indemnification. Neither the Board nor the Committee, nor any member of either or any delegate thereof, shall be liable for any act, omission, interpretation, construction or determination made in good faith in connection with the Plan, and the members of the Board and the Committee (and any delegate thereof) shall be entitled in all cases to indemnification and reimbursement by the Company in respect of any claim, loss, damage or expense (including, without limitation, reasonable attorneys' fees) arising or resulting therefrom to the fullest extent permitted by law and/or under the Company's governing documents, including its certificate of incorporation or bylaws, or any directors' and officers' liability insurance coverage which may be in effect from time to time and/or any indemnification agreement between such individual and the Company.

(e) Foreign Award Recipients. Notwithstanding any provision of the Plan to the contrary, in order to comply with the laws in other countries in which the Company and any Subsidiary operate or have employees or other individuals eligible for Awards, the Committee, in its sole discretion, shall have the power and authority to: (i) determine which Subsidiaries, if any, shall be covered by the Plan; (ii) determine which individuals, if any, outside the United States are eligible to participate in the Plan; (iii) modify the terms and conditions of any Award granted to individuals outside the United States to comply with applicable foreign laws; (iv) establish subplans and modify exercise procedures and other terms and procedures, to the extent the Committee determines such actions to be necessary or advisable (and such subplans and/or modifications shall be attached to the Plan as appendices); *provided, however*, that no such subplans and/or modifications shall increase the share limitation contained in Section 3(a) hereof; and (v) take any action, before or after an Award is made, that the Committee determines to be necessary or advisable to obtain approval or comply with any local governmental regulatory exemptions or approvals.

SECTION 3. STOCK ISSUABLE UNDER THE PLAN; MERGERS AND OTHER TRANSACTIONS; SUBSTITUTION

(a) Stock Issuable. The maximum number of Shares reserved and available for issuance under the Plan shall be 3,111,818 Shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the Shares underlying any Awards that are forfeited, canceled, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) and Shares that are withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding shall be added back to the Shares available for issuance under the Plan. Subject to such overall limitations, Shares may be issued up to such maximum number pursuant to any type or types of Award, and no more than 15,559,090 Shares may be issued pursuant to Incentive Stock Options. The Shares available for issuance under the Plan may be authorized but unissued Shares or Shares reacquired by the Company.

(b) Changes in Stock. Subject to Section 3(c) hereof, if, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Company's capital stock, the outstanding Shares are increased or decreased or are exchanged for a different number or kind of shares or other securities of the Company, or additional Shares or new or different shares or other securities of the Company or other non-cash assets are distributed with respect to such Shares or other securities, in each case, without the receipt of consideration by the Company, or, if, as a result of any merger or consolidation, or sale of all or substantially all of the assets of the Company, the outstanding Shares are converted into or exchanged for other securities of the Company or any successor entity (or a parent or subsidiary thereof), the Committee shall make an appropriate and proportionate adjustment in (i) the maximum number of Shares reserved for issuance under the Plan, (ii) the number and kind of Shares or other securities subject to any then outstanding

Awards under the Plan, (iii) the repurchase price, if any, per Share subject to each outstanding Award, and (iv) the exercise price for each Share subject to any then outstanding Stock Options under the Plan, without changing the aggregate exercise price (*i.e.*, the exercise price multiplied by the number of Stock Options) as to which such Stock Options remain exercisable. To the extent applicable, the Committee shall in any event make such adjustments as may be required by Section 25102(o) of the California Corporation Code and the rules and regulations promulgated thereunder. The adjustment by the Committee shall be final, binding and conclusive. No fractional Shares shall be issued under the Plan resulting from any such adjustment, but the Committee in its discretion may make a cash payment in lieu of fractional shares.

(c) Sale Events.

(i) Options.

(A) In the case of and subject to the consummation of a Sale Event, the Plan and all outstanding Options issued hereunder shall terminate upon the effective time of any such Sale Event unless assumed or continued by the successor entity, or new stock options or other awards of the successor entity or parent thereof are substituted therefor, with an equitable or proportionate adjustment as to the number and kind of shares and, if appropriate, the per share exercise prices, as such parties shall agree (after taking into account any acceleration hereunder and/or pursuant to the terms of any Award Agreement).

(B) In the event of the termination of the Plan and all outstanding Options issued hereunder pursuant to Section 3(c), each Holder of Options shall be permitted, within a period of time prior to the consummation of the Sale Event as specified by the Committee, to exercise all such Options which are then exercisable or will become exercisable as of the effective time of the Sale Event; *provided, however*, that the exercise of Options not exercisable prior to the Sale Event shall be subject to the consummation of the Sale Event.

(C) Notwithstanding anything to the contrary in Section 3(c)(i)(A), in the event of a Sale Event, the Company shall have the right, but not the obligation, to make or provide for a cash payment to the Holders of Options, without any consent of the Holders, in exchange for the cancellation thereof, in an amount equal to the difference between (A) the value as determined by the Committee of the consideration payable per share of Stock pursuant to the Sale Event (the "**Sale Price**") times the number of Shares subject to outstanding Options being cancelled (to the extent then vested and exercisable, including by reason of acceleration in connection with such Sale Event, at prices not in excess of the Sale Price) and (B) the aggregate exercise price of all such outstanding vested and exercisable Options.

(ii) Restricted Stock and Restricted Stock Unit Awards.

(A) In the case of and subject to the consummation of a Sale Event, all unvested Restricted Stock and unvested Restricted Stock Unit Awards (other than those becoming vested as a result of the Sale Event) issued hereunder shall be forfeited immediately prior to the effective time of any such Sale Event unless assumed or continued by the successor entity, or awards of the successor entity or parent thereof are substituted therefor, with an equitable or proportionate adjustment as to the number and kind of shares subject to such awards as such parties shall agree (after taking into account any acceleration hereunder and/or pursuant to the terms of any Award Agreement).

(B) In the event of the forfeiture of Restricted Stock pursuant to Section 3(c)(ii)(A), such Restricted Stock shall be repurchased from the Holder thereof at a price per share equal to the original per share purchase price paid by the Holder (subject to adjustment as provided in Section 3(b)) for such Shares.

(C) Notwithstanding anything to the contrary in Section 3(c)(ii)(A), in the event of a Sale Event, the Company shall have the right, but not the obligation, to make or provide for a cash payment to the Holders of Restricted Stock or Restricted Stock Unit Awards, without consent of the Holders, in exchange for the cancellation thereof, in an amount equal to the Sale Price times the number of Shares subject to such Awards, to be paid at the time of such Sale Event or upon the later vesting of such Awards.

SECTION 4. ELIGIBILITY

Grantees under the Plan will be such full or part-time officers and other employees, directors, Consultants and key persons of the Company and any Subsidiary who are selected from time to time by the Committee in its sole discretion; *provided, however*, that Awards shall be granted only to those individuals described in Rule 701(c) of the Securities Act.

SECTION 5. STOCK OPTIONS

Upon the grant of a Stock Option, the Company and the grantee shall enter into an Award Agreement. The terms and conditions of each such Award Agreement shall be determined by the Committee, and such terms and conditions may differ among individual Awards and grantees.

Stock Options granted under the Plan may be either Incentive Stock Options or Non-Qualified Stock Options. Incentive Stock Options may be granted only to employees of the Company or any Subsidiary that is a “subsidiary corporation” within the meaning of Section 424(f) of the Code. To the extent that any Option does not qualify as an Incentive Stock Option, it shall be deemed a Non-Qualified Stock Option.

(a) Terms of Stock Options. The Committee in its discretion may grant Stock Options to those individuals who meet the eligibility requirements of Section 4. Stock Options shall be subject to the following terms and conditions and shall contain such additional terms and conditions, not inconsistent with the terms of the Plan, as the Committee shall deem desirable.

(i) Exercise Price. The exercise price per share for the Shares covered by a Stock Option shall be determined by the Committee at the time of grant but shall not be less than 100 percent of the Fair Market Value on the Grant Date. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the exercise price per share for the Shares covered by such Incentive Stock Option shall not be less than 110 percent of the Fair Market Value on the Grant Date.

(ii) Option Term. The term of each Stock Option shall be fixed by the Committee, but no Stock Option shall be exercisable more than ten years from the Grant Date. In the case of an Incentive Stock Option that is granted to a Ten Percent Owner, the term of such Stock Option shall be no more than five years from the Grant Date.

(iii) Exercisability; Rights of a Stockholder. Stock Options shall become exercisable and/or vested at such time or times, whether or not in installments, as shall be determined by the Committee at or after the Grant Date. The Award Agreement may permit a grantee to exercise all or a portion of a Stock Option immediately at grant; *provided*, that the Shares issued upon such exercise shall be subject to restrictions and a vesting schedule identical to the vesting schedule of the related Stock Option, such Shares shall be deemed to be Restricted Stock for purposes of the Plan, and the optionee may be required to enter into an additional or new Award Agreement as a condition to exercise of such Stock Option. An optionee shall have the rights of a stockholder only as to Shares acquired upon the exercise of a Stock Option and not as to unexercised Stock Options. An optionee shall not be deemed to have acquired any Shares unless and until a Stock Option shall have been exercised pursuant to the terms of the Award Agreement and this Plan and the optionee's name has been entered on the books of the Company as a stockholder.

(iv) Method of Exercise. Stock Options may be exercised by an optionee in whole or in part, by the optionee giving written or electronic notice of exercise to the Company, specifying the number of Shares to be purchased. Payment of the purchase price may be made by one or more of the following methods (or any combination thereof) to the extent provided in the Award Agreement:

(A) In cash, by certified or bank check, by wire transfer of immediately available funds, or other instrument acceptable to the Committee;

(B) If permitted by the Committee, by the optionee delivering to the Company a promissory note, if the Board has expressly authorized the loan of funds to the optionee for the purpose of enabling or assisting the optionee to effect the exercise of his or her Stock Option; *provided*, that at least so much of the exercise price as represents the par value of the Stock shall be paid in cash if required by state law;

(C) If permitted by the Committee and the Initial Public Offering has occurred (or the Stock otherwise becomes publicly-traded), through the delivery (or attestation to the ownership) of Shares that have been purchased by the optionee on the open market or that are beneficially owned by the optionee and are not then subject to restrictions under any Company plan. To the extent required to avoid variable accounting treatment under ASC 718 or other applicable accounting rules, such surrendered Shares if originally purchased from the Company shall have been owned by the optionee for at least six months. Such surrendered Shares shall be valued at Fair Market Value on the exercise date;

(D) If permitted by the Committee and the Initial Public Offering has occurred (or the Stock otherwise becomes publicly-traded), by the optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company for the purchase price; *provided*, that in the event the optionee chooses to pay the purchase price as so provided, the optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Committee shall prescribe as a condition of such payment procedure; or

(E) If permitted by the Committee, and only with respect to Stock Options that are not Incentive Stock Options, by a “net exercise” arrangement pursuant to which the Company will reduce the number of Shares issuable upon exercise by the largest whole number of Shares with a Fair Market Value that does not exceed the aggregate exercise price.

Payment instruments will be received subject to collection. No certificates for Shares so purchased will be issued to the optionee or, with respect to uncertificated Stock, no transfer to the optionee on the records of the Company will take place, until the Company has completed all steps it has deemed necessary to satisfy legal requirements relating to the issuance and sale of the Shares, which steps may include, without limitation, (i) receipt of a representation from the optionee at the time of exercise of the Option that the optionee is purchasing the Shares for the optionee’s own account and not with a view to any sale or distribution of the Shares or other representations relating to compliance with applicable law governing the issuance of securities, (ii) the legending of the certificate (or notation on any book entry) representing the Shares to evidence the foregoing restrictions, and (iii) obtaining from optionee payment or provision for all withholding taxes due as a result of the exercise of the Option. The delivery of certificates representing the shares of Stock (or the transfer to the optionee on the records of the Company with respect to uncertificated Stock) to be purchased pursuant to the exercise of a Stock Option will be contingent upon (A) receipt from the optionee (or a purchaser acting in his or her stead in accordance with the provisions of the Stock Option) by the Company of the full purchase price for such Shares and the fulfillment of any other requirements contained in the Award Agreement or applicable provisions of laws and (B) if required by the Company, the optionee shall have entered into any stockholders agreements or other agreements with the Company and/or certain other of the Company’s stockholders relating to the Stock. In the event an optionee chooses to pay the purchase price by previously-owned Shares through the attestation method, the number of Shares transferred to the optionee upon the exercise of the Stock Option shall be net of the number of Shares attested to.

(b) Annual Limit on Incentive Stock Options. To the extent required for “incentive stock option” treatment under Section 422 of the Code, the aggregate Fair Market Value (determined as of the Grant Date) of the Shares with respect to which Incentive Stock Options granted under the Plan and any other plan of the Company or its parent and any Subsidiary that become exercisable for the first time by an optionee during any calendar year shall not exceed \$100,000 or such other limit as may be in effect from time to time under Section 422 of the Code. To the extent that any Stock Option exceeds this limit, it shall constitute a Non-Qualified Stock Option.

SECTION 6. RESTRICTED STOCK AWARDS

(a) Nature of Restricted Stock Awards. The Committee may, in its sole discretion, grant (or sell at par value or such other purchase price determined by the Committee) to an eligible individual under Section 4 hereof a Restricted Stock Award under the Plan. The Committee shall determine the restrictions and conditions applicable to each Restricted Stock Award at the time of grant. Conditions may be based on continuing employment (or other Service Relationship), achievement of pre-established performance goals and objectives and/or such other criteria as the Committee may determine. Upon the grant of a Restricted Stock Award, the Company and the grantee shall enter into an Award Agreement. The terms and conditions of each such Award Agreement shall be determined by the Committee, and such terms and conditions may differ among individual Awards and grantees.

(b) Rights as a Stockholder. Upon the grant of the Restricted Stock Award and payment of any applicable purchase price, a grantee of Restricted Stock shall be considered the record owner of and shall be entitled to vote the Restricted Stock if, and to the extent, such Shares are entitled to voting rights, subject to such conditions contained in the Award Agreement. The grantee shall be entitled to receive all dividends and any other distributions declared on the Shares; *provided, however*, that the Company is under no duty to declare any such dividends or to make any such distribution. Unless the Committee shall otherwise determine, certificates evidencing the Restricted Stock shall remain in the possession of the Company until such Restricted Stock is vested as provided in Section 6.1(d), and the grantee shall be required, as a condition of the grant, to deliver to the Company a stock power endorsed in blank and such other instruments of transfer as the Committee may prescribe.

(c) Restrictions. Restricted Stock may not be sold, assigned, transferred, pledged or otherwise encumbered or disposed of except as specifically provided herein or in the Award Agreement. Except as may otherwise be provided by the Committee either in the Award Agreement or, subject to Section 12 below, in writing after the Award Agreement is issued, if a grantee's Service Relationship with the Company and any Subsidiary terminates, the Company or its assigns shall have the right, as may be specified in the relevant instrument, to repurchase some or all of the Shares subject to the Award at such purchase price as is set forth in the Award Agreement.

(d) Vesting of Restricted Stock. The Committee at the time of grant shall specify in the Award Agreement the date or dates and/or the attainment of pre-established performance goals, objectives and other conditions on which the substantial risk of forfeiture imposed shall lapse and the Restricted Stock shall become vested, subject to such further rights of the Company or its assigns as may be specified in the Award Agreement.

SECTION 7. UNRESTRICTED STOCK AWARDS

The Committee may, in its sole discretion, grant (or sell at par value or such other purchase price determined by the Committee) to an eligible person under Section 4 hereof an Unrestricted Stock Award under the Plan. Unrestricted Stock Awards may be granted in respect of past services or other valid consideration, or in lieu of cash compensation due to such grantee.

SECTION 8. RESTRICTED STOCK UNITS

(a) Nature of Restricted Stock Units. The Committee may, in its sole discretion, grant to an eligible person under Section 4 hereof Restricted Stock Units under the Plan. The Committee shall determine the restrictions and conditions applicable to each Restricted Stock Unit at the time of grant. Vesting conditions may be based on continuing employment (or other Service Relationship), achievement of pre-established performance goals and objectives and/or other such criteria as the Committee may determine. Upon the grant of Restricted Stock Units, the grantee and the Company shall enter into an Award Agreement. The terms and conditions of each such Award Agreement shall be determined by the Committee and may differ among individual Awards and grantees. On or promptly following the vesting date or dates applicable to any Restricted Stock Unit, but in no event later than March 15 of the year following the year in which such vesting occurs, such Restricted Stock Unit(s) shall be settled in the form of cash or shares of Stock, as specified in the Award Agreement. Restricted Stock Units may not be sold, assigned, transferred, pledged, or otherwise encumbered or disposed of.

(b) Rights as a Stockholder. A grantee shall have the rights of a stockholder only as to Shares, if any, acquired upon settlement of Restricted Stock Units. A grantee shall not be deemed to have acquired any such Shares unless and until the Restricted Stock Units shall have been settled in Shares pursuant to the terms of the Plan and the Award Agreement, the Company shall have issued and delivered a certificate representing the Shares to the grantee (or transferred on the records of the Company with respect to uncertificated stock), and the grantee's name has been entered in the books of the Company as a stockholder.

(c) Termination. Except as may otherwise be provided by the Committee either in the Award Agreement or in writing after the Award Agreement is issued, a grantee's right in all Restricted Stock Units that have not vested shall automatically terminate upon the grantee's cessation of Service Relationship with the Company and any Subsidiary for any reason.

SECTION 9. TRANSFER RESTRICTIONS; COMPANY RIGHT OF FIRST REFUSAL; COMPANY REPURCHASE RIGHTS

(a) Restrictions on Transfer.

(i) Non-Transferability of Stock Options. Stock Options and, prior to exercise, the Shares issuable upon exercise of such Stock Option, shall not be transferable by the optionee otherwise than by will, or by the laws of descent and distribution, and all Stock Options shall be exercisable, during the optionee's lifetime, only by the optionee, or by the optionee's legal representative or guardian in the event of the optionee's incapacity. Notwithstanding the foregoing, the Committee, in its sole discretion, may provide in the Award Agreement regarding a given Stock Option that the optionee may transfer by gift, without consideration for the transfer, his or her Non-Qualified Stock Options to his or her family members (as defined in Rule 701 of the Securities Act), to trusts for the benefit of such family members, or to partnerships in which such family members are the only partners (to the extent such trusts or partnerships are considered "family members" for purposes of Rule 701 of the Securities Act), provided that the transferee agrees in writing with the Company to be bound by all of the terms and conditions of this Plan and the applicable Award Agreement, including the execution of a stock power upon the issuance of Shares. Stock Options, and the Shares issuable upon exercise of such Stock Options, shall be restricted as to any pledge, hypothecation, or other transfer, including any short position, any "put equivalent position" (as defined in the Exchange Act) or any "call equivalent position" (as defined in the Exchange Act) prior to exercise.

(ii) Shares. No Shares shall be sold, assigned, transferred, pledged, hypothecated, given away or in any other manner disposed of or encumbered, whether voluntarily or by operation of law, unless (i) the transfer is in compliance with the terms of the applicable Award Agreement, all applicable securities laws (including, without limitation, the Securities Act), and with the terms and conditions of this Section 9, (ii) the transfer does not cause the Company to become subject to the reporting requirements of the Exchange Act, and (iii) the transferee consents in writing to be bound by the provisions of the Plan and the Award Agreement, including this Section 9. In connection with any proposed transfer, the Committee may require the transferor to provide at the transferor's own expense an opinion of counsel to the transferor, satisfactory to the Committee, that such transfer is in compliance with all foreign, federal and state securities laws (including, without limitation, the Securities Act). Any attempted transfer of Shares not in accordance with the terms and conditions of this Section 9 shall be null and void, and the Company shall not reflect on its records any change in record ownership of any Shares as a result of any such transfer, shall otherwise refuse to recognize any such transfer and shall not in any way give effect to any such transfer of Shares. The Company shall be entitled to seek protective orders, injunctive relief and other remedies available at law or in equity including, without limitation, seeking specific performance or the rescission of any transfer not made in strict compliance with the provisions of this Section 9. Subject to the foregoing general provisions, and unless otherwise provided in the applicable Award Agreement, Shares may be transferred pursuant to the following specific terms and conditions (provided that with respect to any transfer of Restricted Stock, all vesting and forfeiture provisions shall continue to apply with respect to the original recipient):

(A) Transfers to Permitted Transferees. The Holder may transfer any or all of the Shares to one or more Permitted Transferees; *provided, however*, that following such transfer, such Shares shall continue to be subject to the terms of this Plan (including this Section 9) and such Permitted Transferee(s) shall, as a condition to any such transfer, deliver a written acknowledgment to that effect to the Company and shall deliver a stock power to the Company with respect to the Shares. Notwithstanding the foregoing, the Holder may not transfer any of the Shares to a Person whom the Company reasonably determines is a direct competitor or a potential competitor of the Company or any of its Subsidiaries.

(B) Transfers Upon Death. Upon the death of the Holder, any Shares then held by the Holder at the time of such death and any Shares acquired after the Holder's death by the Holder's legal representative shall be subject to the provisions of this Plan, and the Holder's estate, executors, administrators, personal representatives, heirs, legatees and distributees shall be obligated to convey such Shares to the Company or its assigns under the terms contemplated by the Plan and the Award Agreement.

(b) Right of First Refusal. In the event that a Holder desires at any time to sell or otherwise transfer all or any part of his or her Shares (other than shares of Restricted Stock which by their terms are not transferrable), the Holder first shall give written notice to the Company of the Holder's intention to make such transfer. Such notice shall state the number of Shares that the Holder proposes to sell (the "Offered Shares"), the price and the terms at which the proposed sale is to be made and the name and address of the proposed transferee. At any time within 30 days after the receipt of such notice by the Company, the Company or its assigns may elect to purchase all or any portion of the Offered Shares at the price and on the terms offered by the proposed transferee and specified in the notice. The Company or its assigns shall exercise this right by mailing or delivering written notice to the Holder within the foregoing 30-day period. If the Company or its assigns elect to exercise its purchase rights under this Section 9(b), the closing for such purchase shall, in any event, take place within 45 days after the receipt by the Company of the initial notice from the Holder. In the event that the Company or its assigns do not elect to exercise such purchase right, or in the event that the Company or its assigns do not pay the full purchase price within such 45-day period, the Holder shall be required to pay a transaction processing fee of \$10,000 to the Company (unless waived by the Committee) and then may, within 60 days thereafter, sell the Offered Shares to the proposed transferee and at the same price and on the same terms as specified in the Holder's notice. Any Shares not sold to the proposed transferee shall remain subject to the Plan. If the Holder is a party to any stockholders agreements or other agreements with the Company and/or certain other of the Company's stockholders relating to the Shares, (i) the transferring Holder shall comply with the requirements of such stockholders agreements or other agreements relating to any proposed transfer of the Offered Shares, and (ii) any proposed transferee that purchases Offered Shares shall enter into such stockholders agreements or other agreements with the Company and/or certain of the Company's stockholders relating to the Offered Shares on the same terms and in the same capacity as the transferring Holder.

(c) Company's Right of Repurchase.

(i) Right of Repurchase for Unvested Shares Issued Upon the Exercise of an Option. Upon a Termination Event, the Company or its assigns shall have the right and option to repurchase from a Holder of Shares acquired upon exercise of a Stock Option which are still subject to a risk of forfeiture as of the Termination Event. Such repurchase rights may be exercised by the Company within the later of (A) six (6) months following the date of such Termination Event or (B) seven (7) months after the acquisition of Shares upon exercise of a Stock Option. The repurchase price shall be equal to the lower of the original per share price paid by the Holder, subject to adjustment as provided in Section 3(b) of the Plan, or the current Fair Market Value of such Shares as of the date the Company elects to exercise its repurchase rights.

(ii) Right of Repurchase With Respect to Restricted Stock. Upon a Termination Event, the Company or its assigns shall have the right and option to repurchase from a Holder of Shares received pursuant to a Restricted Stock Award any Shares that are still subject to a risk of forfeiture as of the Termination Event. Such repurchase right may be exercised by the Company within six months following the date of such Termination Event. The repurchase price shall be the lower of the original per share purchase price paid by the Holder, subject to adjustment as provided in Section 3(b) of the Plan, or the current Fair Market Value of such Shares as of the date the Company elects to exercise its repurchase rights.

(iii) Procedure. Any repurchase right of the Company shall be exercised by the Company or its assigns by giving the Holder written notice on or before the last day of the repurchase period of its intention to exercise such repurchase right. Upon such notification, the Holder shall promptly surrender to the Company, free and clear of any liens or encumbrances, any certificates representing the Shares being purchased, together with a duly executed stock power for the transfer of such Shares to the Company or the Company's assignee or assignees. Upon the Company's or its assignee's receipt of the certificates from the Holder, the Company or its assignee or assignees shall deliver to him, her or them a check for the applicable repurchase price; *provided, however*, that the Company may pay the repurchase price by offsetting and canceling any indebtedness then owed by the Holder to the Company.

(d) Drag Along Right. In the event the holders of a majority of the Company's equity securities then outstanding (the "**Majority Shareholders**") determine to enter into a Sale Event in a bona fide negotiated transaction (a "**Sale**"), with any non-Affiliate of the Company or any majority shareholder (in each case, the "**Buyer**"), a Holder of Shares, including any Permitted Transferee, shall be obligated to and shall upon the written request of the Majority Shareholders: (a) sell, transfer and deliver, or cause to be sold, transferred and delivered, to the Buyer, his or her Shares (including for this purpose all of such Holder's Shares that presently or as a result of any such transaction may be acquired upon the exercise of an Option (following the payment of the exercise price therefor)) on substantially the same terms applicable to the Majority Shareholders (with appropriate adjustments to reflect the conversion of convertible securities, the redemption of redeemable securities and the exercise of exercisable securities as well as the relative preferences and priorities of preferred stock); and (b) execute and deliver such instruments of conveyance and transfer and take such other action, including voting such Shares in favor of any Sale proposed by the Majority Shareholders and executing any purchase agreements, merger agreements, indemnity agreements, escrow agreements or related documents as the Majority Shareholders or the Buyer may reasonably require in order to carry out the terms and provisions of this Section 9(d).

(e) Escrow Arrangement.

(i) Escrow. In order to carry out the provisions of this Section 9 of this Plan more effectively, the Company shall hold any Shares issued pursuant to Awards granted under the Plan in escrow together with separate stock powers executed by the Holder in blank for transfer. The Company shall not dispose of the Shares except as otherwise provided in this Plan. In the event of any repurchase by the Company (or any of its assigns), the Company is hereby authorized by the Holder, as the Holder's attorney-in-fact, to date and complete the stock powers necessary for the transfer of the Shares being purchased and to transfer such Shares in accordance with the terms hereof. At such time as any Shares are no longer subject to the Company's repurchase and first refusal rights, the Company shall, at the written request of the Holder, deliver to the Holder a certificate representing such Shares with the balance of the Shares to be held in escrow pursuant to this Section.

(ii) Remedy. Without limitation of any other provision of this Plan or other rights, in the event that a Holder or any other Person is required to sell a Holder's Shares pursuant to the provisions of Sections 9(b) or (c) hereof and in the further event that he or she refuses or for any reason fails to deliver to the Company or its designated purchaser of such Shares the certificate or certificates evidencing such Shares together with a related stock power, the Company or such designated purchaser may deposit the applicable purchase price for such Shares with a bank designated by the Company, or with the Company's independent public accounting firm, as agent or trustee, or in escrow, for such Holder or other Person, to be held by such bank or accounting firm for the benefit of and for delivery to him, her, them or it, and/or, in its discretion, pay such purchase price by offsetting any indebtedness then owed by such Holder as provided above. Upon any such deposit and/or offset by the Company or its designated purchaser of such amount and upon notice to the Person who was required to sell the Shares to be sold pursuant to the provisions of Sections 9(b) or (c), such Shares shall at such time be deemed to have been sold, assigned, transferred and conveyed to such purchaser, such Holder shall have no further rights thereto (other than the right to withdraw the payment thereof held in escrow, if applicable), and the Company shall record such transfer in its stock transfer book or in any appropriate manner.

(f) Lockup Provision. If requested by the Company, a Holder will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the Company's initial public offering (the "*IPO*") and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days), or such other period as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (1) the publication or other distribution of research reports; and (2) analyst recommendations and opinions, including, but not limited to, the restrictions contained in FINRA Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto), (a) lend, 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, or otherwise transfer or dispose of, directly or indirectly, any shares of capital stock held immediately prior to the effectiveness of the registration statement for the IPO; or (b) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the capital stock, whether any such transaction described in clause (a) or (b) above is to be settled by delivery of capital stock or other securities, in cash or otherwise. The foregoing provisions of this Section 9(f) shall not apply to the sale of any shares to an underwriter pursuant to an underwriting agreement, and shall only be applicable to the Holder if all officers, directors and holders of more than one percent (1%) of the outstanding Common Stock (after giving effect to the conversion into Common Stock of all outstanding Preferred Stock) enter into similar agreements. The underwriters in connection with the IPO are intended third party beneficiaries of this Section 9(f) and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in the IPO that are consistent with this Section 9(f) or that are necessary to give further effect thereto.

(g) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding Shares are increased or decreased or are exchanged for a different number or kind of securities of the Company, the restrictions contained in this Section 9 shall apply with equal force to additional and/or substitute securities, if any, received by Holder in exchange for, or by virtue of his or her ownership of, Shares.

(h) Termination. The terms and provisions of Section 9(b) and Section 9(c) (except for the Company's right to repurchase Shares still subject to a risk of forfeiture upon a Termination Event) shall terminate upon the closing of the Company's Initial Public Offering or upon consummation of any Sale Event, in either case as a result of which Shares are registered under Section 12 of the Exchange Act and publicly-traded on any national security exchange.

SECTION 10. TAX WITHHOLDING

(a) Payment by Grantee. Each grantee shall, no later than the date as of which the value of an Award or of any Shares or other amounts received thereunder first becomes includable in the gross income of the grantee for income tax purposes, pay to the Company, or make arrangements satisfactory to the Committee regarding payment of, any Federal, state, or local taxes of any kind required by law to be withheld by the Company with respect to such income. The Company and any Subsidiary shall, to the extent permitted by law, have the right to deduct any such taxes from any payment of any kind otherwise due to the grantee. The Company's obligation to deliver stock certificates (or evidence of book entry) to any grantee is subject to and conditioned on any such tax withholding obligations being satisfied by the grantee.

(b) Payment in Stock. The Company's minimum required tax withholding obligation may be satisfied, in whole or in part, by the Company withholding from Shares to be issued pursuant to an Award a number of Shares having an aggregate Fair Market Value (as of the date the withholding is effected) that would satisfy the minimum withholding amount due.

SECTION 11. SECTION 409A AWARDS

To the extent that any Award is determined to constitute "nonqualified deferred compensation" within the meaning of Section 409A (a "**409A Award**"), the Award shall be subject to such additional rules and requirements as may be specified by the Committee from time to time. In this regard, if any amount under a 409A Award is payable upon a "separation from service" (within the meaning of Section 409A) to a grantee who is considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the grantee's separation from service, or (ii) the grantee's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. The Company makes no representation or warranty and shall have no liability to any grantee under the Plan or any other Person with respect to any penalties or taxes under Section 409A that are, or may be, imposed with respect to any Award.

SECTION 12. AMENDMENTS AND TERMINATION

The Board may, at any time, amend or discontinue the Plan and the Committee may, at any time, amend or cancel any outstanding Award for the purpose of satisfying changes in law or for any other lawful purpose, but no such action shall adversely affect rights under any outstanding Award without the consent of the holder of the Award. The Committee may exercise its discretion to reduce the exercise price of outstanding Stock Options or effect repricing through cancellation of outstanding Stock Options and by granting such holders new

Awards in replacement of the cancelled Stock Options. To the extent determined by the Committee to be required either by the Code to ensure that Incentive Stock Options granted under the Plan are qualified under Section 422 of the Code or otherwise, Plan amendments shall be subject to approval by the Company stockholders entitled to vote at a meeting of stockholders. Nothing in this Section 12 shall limit the Board's or Committee's authority to take any action permitted pursuant to Section 3(c). The Board reserves the right to amend the Plan and/or the terms of any outstanding Stock Options to the extent reasonably necessary to comply with the requirements of the exemption pursuant to paragraph (f)(4) of Rule 12h-1 of the Exchange Act.

SECTION 13. STATUS OF PLAN

With respect to the portion of any Award that has not been exercised and any payments in cash, Stock or other consideration not received by a grantee, a grantee shall have no rights greater than those of a general creditor of the Company unless the Committee shall otherwise expressly so determine in connection with any Award.

SECTION 14. GENERAL PROVISIONS

(a) No Distribution; Compliance with Legal Requirements. The Committee may require each person acquiring Shares pursuant to an Award to represent to and agree with the Company in writing that such person is acquiring the Shares without a view to distribution thereof. No Shares shall be issued pursuant to an Award until all applicable securities law and other legal and stock exchange or similar requirements have been satisfied. The Committee may require the placing of such stop-orders and restrictive legends on certificates for Stock and Awards as it deems appropriate.

(b) Delivery of Stock Certificates. Stock certificates to grantees under the Plan shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have mailed such certificates in the United States mail, addressed to the grantee, at the grantee's last known address on file with the Company; *provided*, that stock certificates to be held in escrow pursuant to Section 9 of the Plan shall be deemed delivered when the Company shall have recorded the issuance in its records. Uncertificated Stock shall be deemed delivered for all purposes when the Company or a stock transfer agent of the Company shall have given to the grantee by electronic mail (with proof of receipt) or by United States mail, addressed to the grantee, at the grantee's last known address on file with the Company, notice of issuance and recorded the issuance in its records (which may include electronic "book entry" records).

(c) No Employment Rights. The adoption of the Plan and the grant of Awards do not confer upon any Person any right to continued employment or Service Relationship with the Company or any Subsidiary.

(d) Trading Policy Restrictions. Option exercises and other Awards under the Plan shall be subject to the Company's insider trading policy-related restrictions, terms and conditions as may be established by the Committee, or in accordance with policies set by the Committee, from time to time.

(e) Designation of Beneficiary. Each grantee to whom an Award has been made under the Plan may designate a beneficiary or beneficiaries to exercise any Award on or after the grantee's death or receive any payment under any Award payable on or after the grantee's death. Any such designation shall be on a form provided for that purpose by the Committee and shall not be effective until received by the Committee. If no beneficiary has been designated by a deceased grantee, or if the designated beneficiaries have predeceased the grantee, the beneficiary shall be the grantee's estate.

(f) Legend. Any certificate(s) representing the Shares shall carry substantially the following legend (and with respect to uncertificated Stock, the book entries evidencing such shares shall contain the following notation):

The transferability of this certificate and the shares of stock represented hereby are subject to the restrictions, terms and conditions (including repurchase and restrictions against transfers) contained in the Upstream Bio, Inc. 2021 Stock Option and Grant Plan and any agreements entered into thereunder by and between the company and the holder of this certificate (a copy of which is available at the offices of the company for examination).

(g) Information to Holders of Options. In the event the Company is relying on the exemption from the registration requirements of Section 12(g) of the Exchange Act contained in paragraph (f)(1) of Rule 12h-1 of the Exchange Act, the Company shall provide the information described in Rule 701(e)(3), (4) and (5) of the Securities Act to all holders of Options in accordance with the requirements thereunder. The foregoing notwithstanding, the Company shall not be required to provide such information unless the optionholder has agreed in writing, on a form prescribed by the Company, to keep such information confidential.

SECTION 15. EFFECTIVE DATE OF PLAN

The Plan shall become effective upon adoption by the Board and shall be approved by stockholders in accordance with applicable state law and the Company's articles of incorporation and bylaws within twelve (12) months thereafter. If the stockholders fail to approve the Plan within twelve (12) months after its adoption by the Board of Directors, then any Awards granted or sold under the Plan shall be rescinded and no additional grants or sales shall thereafter be made under the Plan. Subject to such approval by stockholders and to the requirement that no Shares may be issued hereunder prior to such approval, Stock Options and other Awards may be granted hereunder on and after adoption of the Plan by the Board. No grants of Stock Options and other Awards may be made hereunder after the tenth anniversary of the date the Plan is adopted by the Board or the date the Plan is approved by the Company's stockholders, whichever is earlier.

SECTION 16. GOVERNING LAW

This Plan, all Awards and any controversy arising out of or relating to this Plan and all Awards shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

DATE ADOPTED BY THE BOARD OF DIRECTORS:

December 7, 2021

DATE APPROVED BY THE STOCKHOLDERS:

January 19, 2022

UPSTREAM BIO, INC.

**AMENDMENT NO. 1 TO
2021 STOCK OPTION AND GRANT PLAN**

WHEREAS, the Board of Directors and the stockholders of Upstream Bio, Inc. (the “*Company*”) approved and adopted the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the “*Plan*”) on December 7, 2021, and January 19, 2022, respectively;

WHEREAS, the Board of Directors and the stockholders of the Company have determined that it is in the best interest of the Company and its stockholders to amend the Plan as set forth in this Amendment.

NOW, THEREFORE, the Plan is amended as follows:

1. Amendment to the Plan.

(a) Amendment to Stock Issuable. Section 3(a) of the Plan is hereby amended and restated in its entirety to read as follows:

“Stock Issuable. The maximum number of Shares reserved and available for issuance under the Plan shall be 4,023,529 Shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the Shares underlying any Awards that are forfeited, canceled, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) and Shares that are withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding shall be added back to the Shares available for issuance under the Plan. Subject to such overall limitations, Shares may be issued up to such maximum number pursuant to any type or types of Award, and no more than 4,023,529 Shares may be issued pursuant to Incentive Stock Options. The Shares available for issuance under the Plan may be authorized but unissued Shares or Shares reacquired by the Company.”

2. Miscellaneous.

(a) Effect. Except as amended hereby, the Plan shall remain in full force and effect.

(b) Defined Terms. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

(c) Governing Law. This Agreement all Awards and any controversy arising out of or relating to this Plan and all Awards shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

Adopted by Board of Directors:

May 12, 2022

Approved by Stockholders:

May 13, 2022

UPSTREAM BIO, INC.

**AMENDMENT NO. 2 TO THE
2021 STOCK OPTION AND GRANT PLAN**

WHEREAS, the Board of Directors (the “**Board**”) and stockholders (the “**Stockholders**”) of Upstream Bio, Inc. (the “**Company**”) approved and adopted the Company’s 2021 Stock Option and Grant Plan (as amended from time to time, the “**Plan**”) on December 7, 2021, and January 19, 2022, respectively;

WHEREAS, the Board and Stockholders have determined that it is in the best interest of the Company and its Stockholders to amend the Plan as set forth in this Amendment No. 2 to the Plan (this “**Amendment**”);

NOW, THEREFORE, the Board and Stockholders hereby agree that the Plan shall be amended as follows:

1. **Amendment**. Section 3(a) of the Plan is hereby amended to increase the total number of Shares (as defined in the Plan) reserved for issuance under the Plan by 519,032 shares such that Section 3(a) of the Plan, as so amended, shall read in its entirety as follows:

“(a) **Stock Issuable**. The maximum number of Shares reserved and available for issuance under the Plan shall be 4,542,561 Shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the Shares underlying any Awards that are forfeited, canceled, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) and Shares that are withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding shall be added back to the Shares available for issuance under the Plan. Subject to such overall limitations, Shares may be issued up to such maximum number pursuant to any type or types of Award, and no more than 45,425,610 Shares may be issued pursuant to Incentive Stock Options. The Shares available for issuance under the Plan may be authorized but unissued Shares or Shares reacquired by the Company.”

2. **Effect**. Except as amended hereby, the Plan shall remain in full force and effect.

3. **Defined Terms**. All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

4. **Governing Law**. This Amendment, the Plan, all Awards and any controversy arising out of or relating to this Amendment, the Plan and all Awards shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

* * *

Date of Board of Directors Approval: June 6, 2023

Date of Stockholder Approval: June 6, 2023

UPSTREAM BIO, INC.

**AMENDMENT NO. 3 TO THE
2021 STOCK OPTION AND GRANT PLAN**

WHEREAS, the Board of Directors (the “**Board**”) and stockholders (the “**Stockholders**”) of Upstream Bio, Inc. (the “**Company**”) approved and adopted the Company’s 2021 Stock Option and Grant Plan (as amended from time to time, the “**Plan**”) on December 7, 2021, and January 19, 2022, respectively; and

WHEREAS, the Board and Stockholders have determined that it is in the best interest of the Company and its Stockholders to amend the Plan as set forth in this Amendment No. 3 to the Plan (this “**Amendment**”).

NOW, THEREFORE, the Board and Stockholders hereby agree that the Plan shall be amended as follows:

1. **Amendment.** Section 3(a) of the Plan is hereby amended to increase the total number of Shares (as defined in the Plan) reserved for issuance under the Plan by 1,520,995 shares such that Section 3(a) of the Plan, as so amended, shall read in its entirety as follows:

“(a) **Stock Issuable.** The maximum number of Shares reserved and available for issuance under the Plan shall be 6,063,556 Shares, subject to adjustment as provided in Section 3(b). For purposes of this limitation, the Shares underlying any Awards that are forfeited, canceled, reacquired by the Company prior to vesting, satisfied without the issuance of Stock or otherwise terminated (other than by exercise) and Shares that are withheld upon exercise of an Option or settlement of an Award to cover the exercise price or tax withholding shall be added back to the Shares available for issuance under the Plan. Subject to such overall limitations, Shares may be issued up to such maximum number pursuant to any type or types of Award, and no more than 60,635,560 Shares may be issued pursuant to Incentive Stock Options. The Shares available for issuance under the Plan may be authorized but unissued Shares or Shares reacquired by the Company.”

2. **Effect.** Except as amended hereby, the Plan shall remain in full force and effect.

3. **Defined Terms.** All capitalized terms used but not specifically defined herein shall have the same meanings given such terms in the Plan unless the context clearly indicates or dictates a contrary meaning.

4. **Governing Law.** This Amendment, the Plan, all Awards and any controversy arising out of or relating to this Amendment, the Plan and all Awards shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

* * *

Date of Board of Directors Approval: March 13, 2024

Date of Stockholder Approval: April 5, 2024

**INCENTIVE STOCK OPTION GRANT NOTICE
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

Pursuant to the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the "**Plan**"), Upstream Bio, Inc. a Delaware corporation (together with any successor, the "**Company**"), has granted to the individual named below, an option (the "**Stock Option**") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value \$0.001 per share ("**Common Stock**"), of the Company indicated below (the "**Shares**"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Incentive Stock Option Grant Notice (the "**Grant Notice**"), the attached Incentive Stock Option Agreement (the "**Agreement**") and the Plan. This Stock Option is intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "**Code**"). To the extent that any portion of the Stock Option does not so qualify, it shall be deemed a non-qualified stock option.

Name of Optionee: _____ (the "**Optionee**")

No. of Shares: _____ Shares of Common Stock

Grant Date: _____

Vesting Commencement Date: _____ (the "**Vesting Commencement Date**")

Expiration Date: _____ (the "**Expiration Date**")

Option Exercise Price/Share: \$ _____ (the "**Option Exercise Price**")

Vesting Schedule: [25] percent of the Shares shall vest and become exercisable on the first anniversary of the Vesting Commencement Date; provided that the Optionee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining [75] percent of the Shares shall vest and become exercisable in [36] equal monthly installments following the first anniversary of the Vesting Commencement Date, provided the Optionee continues to have a Service Relationship with the Company on each vesting date. Notwithstanding anything in the Agreement to the contrary, in the case of a Sale Event, this Stock Option and the Shares shall be treated as provided in Section 3(c) of the Plan[; *provided, however,* that INSERT ANY ACCELERATED VESTING PROVISION HERE].

Attachments: Incentive Stock Option Agreement, 2021 Stock Option and Grant Plan

**INCENTIVE STOCK OPTION AGREEMENT
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Grant Notice and the Plan.

1. Vesting, Exercisability and Termination.

(a) No portion of this Stock Option may be exercised until such portion shall have vested and become exercisable.

(b) Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, this Stock Option shall be vested and exercisable on the respective dates indicated below:

(i) This Stock Option shall initially be unvested and unexercisable.

(ii) This Stock Option shall vest and become exercisable in accordance with the Vesting Schedule set forth in the Grant Notice.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case, to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or Disability, this Stock Option may be exercised, to the extent exercisable on the date of such termination, by the Optionee, the Optionee's legal representative or legatee for a period of twelve (12) months from the date of death or Disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or Disability, and unless otherwise determined by the Committee, this Stock Option may be exercised, to the extent exercisable on the date of termination, for a period of ninety (90) days from the date of termination or until the Expiration Date, if earlier; *provided, however,* that if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

(d) For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees. Any portion of this Stock Option that is not vested and exercisable on the date of termination of the Service Relationship shall terminate immediately and be null and void.

(e) It is understood and intended that this Stock Option is intended to qualify as an “incentive stock option” as defined in Section 422 of the Code to the extent permitted under applicable law. Accordingly, the Optionee understands that in order to obtain the benefits of an incentive stock option under Section 422 of the Code, no sale or other disposition may be made of Shares for which incentive stock option treatment is desired within the one-year period beginning on the day after the day of the transfer of such Shares to him or her, nor within the two-year period beginning on the day after Grant Date of this Stock Option and further that this Stock Option must be exercised within three (3) months after termination of employment as an employee (or twelve (12) months in the case of death or disability) to qualify as an incentive stock option. If the Optionee disposes (whether by sale, gift, transfer or otherwise) of any such Shares within either of these periods, he or she will notify the Company within thirty (30) days after such disposition. The Optionee also agrees to provide the Company with any information concerning any such dispositions required by the Company for tax purposes. Further, to the extent this Stock Option and any other incentive stock options of the Optionee having an aggregate Fair Market Value in excess of \$100,000 (determined as of the Grant Date) first become exercisable in any year, such options will not qualify as incentive stock options.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an “*Exercise Notice*”) in the form of Appendix A hereto indicating his or her election to purchase some or all of the Shares with respect to which this Stock Option is then exercisable. Such notice shall specify the number of Shares to be purchased. Payment of the purchase price may be made by one or more of the methods described in Section 5 of the Plan, subject to the limitations contained in such Section of the Plan, including the requirement that the Committee specifically approve in advance certain payment methods.

(b) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Stock Option is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee’s lifetime only by the Optionee (or by the Optionee’s guardian or personal representative in the event of the Optionee’s incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee’s Stock Option in the event of the Optionee’s death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee’s death.

5. Restrictions on Transfer of Shares. The Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of securities of the Company, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, this Stock Option or Shares acquired pursuant thereto.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Commonwealth of Massachusetts.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter, including but not limited to, any written or oral offer letter or consulting or service agreement between the parties that provides for the issuance of equity in the Company.

7. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or this Stock Option, this Agreement, or the breach, termination or validity of the Plan, this Stock Option or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the “**J.A.M.S. Rules**”). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1-16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Boston, Massachusetts.

(b) The arbitration shall commence within sixty (60) days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three (3) depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven (7) business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party’s witness or expert. The arbitrator’s decision and award shall be made and delivered within six (6) months of the selection of the arbitrator. The arbitrator’s decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Optionee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a “**Party**”) covenants and agrees that such party will participate in the arbitration in good faith. This section applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees 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 (except as protected by applicable law), 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 Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

UPSTREAM BIO, INC.

By: _____
Name: [•]
Title: [•]
Address: _____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that this Stock Option is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Grant Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 7 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

By: _____
Name: [•]
Title: [•]
Address: _____

[SPOUSE'S CONSENT¹

I acknowledge that I have read the foregoing Incentive Stock Option Agreement and understand the contents thereof.

_____]

¹ A spouse's consent is recommended only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

DESIGNATED BENEFICIARY:

By: _____

Name: [•]

Title: [•]

Address: _____

APPENDIX A

STOCK OPTION EXERCISE NOTICE

UPSTREAM BIO, INC.

Attention: [_____]

Pursuant to the terms of the grant notice and stock option agreement between the undersigned and Upstream Bio, Inc. (the "**Company**") dated _____ (the "**Agreement**") under the Upstream Bio, Inc. 2021 Stock Option and Grant Plan, I, [Insert Name] _____, hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of \$_____ representing Upstream Bio, Inc. the purchase price for [Fill in number of Shares] _____ Shares. I have chosen the following form(s) of payment:

- [•] 1. Cash
- [•] 2. Certified or bank check payable to Upstream Bio, Inc.
- [•] 3. Other (as referenced in the Agreement and described in the Plan (please describe))

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

1. I am purchasing the Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.
2. I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.
3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.
4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period of time.
5. I understand that the Shares may not be registered under the Securities Act of 1933 (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

6. I have read and understand the Plan and acknowledge and agree that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

7. I understand and agree that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

8. I understand and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

9. I understand and agree that I may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

Sincerely yours,

Name: [•]

Address: _____

Date: _____

**NON-QUALIFIED STOCK OPTION GRANT NOTICE
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

Pursuant to the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the "**Plan**"), Upstream Bio, Inc. a Delaware corporation (together with any successor, the "**Company**"), has granted to the individual named below, an option (the "**Stock Option**") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value \$0.001 per share ("**Common Stock**"), of the Company indicated below (the "**Shares**"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Non-Qualified Stock Option Grant Notice (the "**Grant Notice**"), the attached Non-Qualified Stock Option Agreement (the "**Agreement**") and the Plan. This Stock Option is not intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "**Code**").

Name of Optionee:	_____	(the " Optionee ")
No. of Shares:	_____	Shares of Common Stock
Grant Date:	_____	
Vesting Commencement Date:	_____	(the " Vesting Commencement Date ")
Expiration Date:	_____	(the " Expiration Date ")
Option Exercise Price/Share:	\$ _____	(the " Option Exercise Price ")
Vesting Schedule:	[25] percent of the Shares shall vest and become exercisable on the first anniversary of the Vesting Commencement Date; provided that the Optionee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining [75] percent of the Shares shall vest and become exercisable in [36] equal monthly installments following the first anniversary of the Vesting Commencement Date, provided the Optionee continues to have a Service Relationship with the Company on each vesting date. Notwithstanding anything in the Agreement to the contrary, in the case of a Sale Event, this Stock Option and the Shares shall be treated as provided in Section 3(c) of the Plan[; <i>provided, however,</i> that INSERT ANY ACCELERATED VESTING PROVISION HERE].	

Attachments: Non-Qualified Stock Option Agreement, 2021 Stock Option and Grant Plan

**NON-QUALIFIED STOCK OPTION AGREEMENT
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Grant Notice and the Plan.

1. Vesting, Exercisability and Termination.

(a) No portion of this Stock Option may be exercised until such portion shall have vested and become exercisable.

(b) Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, this Stock Option shall be vested and exercisable on the respective dates indicated below:

(i) This Stock Option shall initially be unvested and unexercisable.

(ii) This Stock Option shall vest and become exercisable in accordance with the Vesting Schedule set forth in the Grant Notice.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case, to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or Disability, this Stock Option may be exercised, to the extent exercisable on the date of such termination, by the Optionee, the Optionee's legal representative or legatee for a period of twelve (12) months from the date of death or Disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or Disability, and unless otherwise determined by the Committee, this Stock Option may be exercised, to the extent exercisable on the date of termination, for a period of ninety (90) days from the date of termination or until the Expiration Date, if earlier; *provided, however*, that if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees and any Permitted Transferee. Any portion of this Stock Option that is not vested and exercisable on the date of termination of the Service Relationship shall terminate immediately and be null and void.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an “*Exercise Notice*”) in the form of Appendix A hereto indicating his or her election to purchase some or all of the Shares with respect to which this Stock Option is then exercisable. Such notice shall specify the number of Shares to be purchased. Payment of the purchase price may be made by one or more of the methods described in Section 5 of the Plan, subject to the limitations contained in such Section of the Plan, including the requirement that the Committee specifically approve in advance certain payment methods.

(b) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Stock Option is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee’s lifetime only by the Optionee (or by the Optionee’s guardian or personal representative in the event of the Optionee’s incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee’s Stock Option in the event of the Optionee’s death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee’s death.

5. Restrictions on Transfer of Shares. The Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of securities of the Company, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, this Stock Option or Shares acquired pursuant thereto.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter, including but not limited to, any written or oral offer letter or consulting or service agreement between the parties that provides for the issuance of equity in the Company.

7. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or this Stock Option, this Agreement, or the breach, termination or validity of the Plan, this Stock Option or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the “**J.A.M.S. Rules**”). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1-16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Boston, Massachusetts.

(b) The arbitration shall commence within sixty (60) days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three (3) depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven (7) business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party’s witness or expert. The arbitrator’s decision and award shall be made and delivered within six (6) months of the selection of the arbitrator. The arbitrator’s decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Optionee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a “**Party**”) covenants and agrees that such party will participate in the arbitration in good faith. This Section 7 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees 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 (except as protected by applicable law), 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 Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

UPSTREAM BIO, INC.

By: _____
Name: [•]
Title: [•]
Address: _____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that this Stock Option is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Grant Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 7 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

By: _____
Name: [•]
Title: [•]
Address: _____

[SPOUSE'S CONSENT¹
I acknowledge that I have read the
foregoing Incentive Stock Option
Agreement and understand the contents
thereof.
_____]

¹ A spouse's consent is recommended only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

DESIGNATED BENEFICIARY:

By: _____

Name: [•]

Title: [•]

Address: _____

APPENDIX A

STOCK OPTION EXERCISE NOTICE

UPSTREAM BIO, INC.

Attention: [_____]

Pursuant to the terms of the grant notice and stock option agreement between the undersigned and Upstream Bio, Inc. (the "**Company**") dated _____ (the "**Agreement**") under the Upstream Bio, Inc. 2021 Stock Option and Grant Plan, I, [Insert Name] _____, hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of \$ _____ representing the purchase price for [Fill in number of Shares] _____ Shares. I have chosen the following form(s) of payment:

- [•] 1. Cash
- [•] 2. Certified or bank check payable to Upstream Bio, Inc.
- [•] 3. Other (as referenced in the Agreement and described in the Plan (please describe))

_____.

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

- (i) I am purchasing the Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.
- (ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.
- (iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.
- (iv) I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period of time.
- (v) I understand that the Shares may not be registered under the Securities Act of 1933 (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) I have read and understand the Plan and acknowledge and agree that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(vii) I understand and agree that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(viii) I understand and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(ix) I understand and agree that I may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

Sincerely yours,

Name:

Address:

Date: _____

**EARLY EXERCISE
NON-QUALIFIED STOCK OPTION GRANT NOTICE
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

Pursuant to the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the "**Plan**"), Upstream Bio, Inc., a Delaware corporation (together with any successor thereto, the "**Company**"), has granted to the individual named below, an option (the "**Stock Option**") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value \$0.001 per share ("**Common Stock**"), of the Company indicated below (the "**Shares**"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Early Exercise Non-Qualified Stock Option Grant Notice (the "**Grant Notice**"), the attached Early Exercise Non-Qualified Stock Option Agreement (the "**Agreement**") and the Plan. This Stock Option is not intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "**Code**").

Name of Optionee: _____ (the "**Optionee**")
No. of Shares: _____ Shares of Common Stock
Grant Date: _____
Vesting Commencement Date: _____ (the "**Vesting Commencement Date**")
Expiration Date: _____ (the "**Expiration Date**")
Option Exercise Price/Share: \$ _____ (the "**Option Exercise Price**")

Vesting Schedule: [25] percent of the Shares shall vest on the first anniversary of the Vesting Commencement Date; provided that the Optionee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining [75] percent of the Shares shall vest in [36] equal monthly installments following the first anniversary of the Vesting Commencement Date, provided the Optionee continues to have a Service Relationship with the Company on each vesting date. Notwithstanding anything in the Agreement to the contrary, in the case of a Sale Event, this Stock Option and the Shares shall be treated as provided in Section 3(c) of the Plan[; *provided, however,* that INSERT ANY ACCELERATED VESTING PROVISION HERE].

Attachments: Early Exercise Non-Qualified Stock Option Agreement, Restricted Stock Agreement, 2021 Stock Option and Grant Plan

EARLY EXERCISE

NON-QUALIFIED STOCK OPTION AGREEMENT
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Grant Notice and the Plan.

1. Vesting, Exercisability and Termination.

(a) This Stock Option shall be immediately exercisable, regardless of whether the Shares are vested.

(b) Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, the Shares shall be vested on the respective dates indicated below:

(i) All Shares shall initially be unvested.

(ii) The Shares shall vest in accordance with the Vesting Schedule set forth in the Grant Notice.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case, to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or Disability, this Stock Option may continue to be exercised, to the extent the Shares are vested on the date of termination, by the Optionee, the Optionee's legal representative or legatee for a period of twelve (12) months from the date of death or Disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or Disability, and unless otherwise determined by the Committee, this Stock Option may continue to be exercised, to the extent the Shares are vested on the date of termination, for a period of ninety (90) days from the date of termination or until the Expiration Date, if earlier; *provided, however*, that if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees and any Permitted Transferee. Any portion of this Stock Option with respect to Shares that are not vested and exercisable on the date of termination of the Service Relationship shall terminate immediately and be null and void.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an "**Exercise Notice**") in the form of Appendix A hereto indicating his or her election to purchase some or all of the Shares. Such notice shall specify the number of Shares to be purchased. To the extent this Stock Option is only partially exercised, such exercise shall first be with respect to the Shares, if any, that have previously vested, and then with respect to the Shares that will next vest, with the Shares that vest at the latest date being exercised last. Payment of the purchase price may be made by one or more of the methods described in Section 5 of the Plan, subject to the limitations contained in such Section of the Plan, including the requirement that the Committee specifically approve in advance certain payment methods.

(b) In the event the Optionee exercises a portion of this Stock Option with respect to Shares that have not vested, the Optionee shall also deliver a Restricted Stock Agreement covering such unvested Shares in the form of Appendix B hereto (the "**Restricted Stock Agreement**") with the same vesting schedule for such Shares as set forth for such Shares herein.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Stock Option is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee's lifetime only by the Optionee (or by the Optionee's guardian or personal representative in the event of the Optionee's incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee's Stock Option in the event of the Optionee's death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee's death.

5. Restrictions on Transfer of Shares. The Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan and, if applicable, the Restricted Stock Agreement.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of securities of the Company, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, this Stock Option or Shares acquired pursuant thereto.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

7. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or this Stock Option, this Agreement, or the breach, termination or validity of the Plan, this Stock Option or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the "J.A.M.S. Rules"). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1—16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Boston, Massachusetts.

(b) The arbitration shall commence within sixty (60) days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three (3) depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven (7) business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party's witness or expert. The arbitrator's decision and award shall be made and delivered within six (6) months of the selection of the arbitrator. The arbitrator's decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Optionee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a "**Party**") covenants and agrees that such party will participate in the arbitration in good faith. This Section 7 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees 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 (except as protected by applicable law), 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 Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

UPSTREAM BIO, INC.

By: _____
Name: [•] _____
Title: [•] _____
Address: _____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that this Stock Option is subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Grant Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 7 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

By: _____
Name: [•] _____
Title: [•] _____
Address: _____

[SPOUSE'S CONSENT¹

I acknowledge that I have read the foregoing Incentive Stock Option Agreement and understand the contents thereof.

_____]

¹ A spouse's consent is recommended only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

DESIGNATED BENEFICIARY:

By: _____

Name: [•]

Title: [•]

Address: _____

STOCK OPTION EXERCISE NOTICE

UPSTREAM BIO, INC.

Attention: [_____]

Pursuant to the terms of the grant notice and stock option agreement between the undersigned and Upstream Bio, Inc. (the "**Company**") dated _____ (the "**Agreement**") under the Upstream Bio, Inc. 2021 Stock Option and Grant Plan, I, [Insert Name] _____, hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of \$ _____ representing the purchase price for [Fill in number of Shares] _____ Shares. I have chosen the following form(s) of payment:

- 1. Cash
- 2. Certified or bank check payable to Upstream Bio, Inc.
- 3. Other (as referenced in the Agreement and described in the Plan (please describe))

_____.

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

- (i) I am purchasing the Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.
- (ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.
- (iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.
- (iv) I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period of time.
- (v) I understand that the Shares may not be registered under the Securities Act of 1933 (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) To the extent required, I have executed and delivered to the Company the Restricted Stock Agreement attached as Appendix B to the Agreement.

(vii) I have read and understand the Plan and acknowledge and agree that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(viii) I understand and agree that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(ix) I understand and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(x) I understand and agree that I may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

Sincerely yours,

Name:

Address:

Date: _____

Appendix B

**RESTRICTED STOCK AGREEMENT FOR EARLY EXERCISE OPTION
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Early Exercise Non-Qualified Stock Option Grant Notice (the “*Grant Notice*”) and Early Exercise Non-Qualified Stock Option Agreement (the “*Option Agreement*”) between Upstream Bio, Inc. (the “*Company*”) and [] (the “*Grantee*”) for [] Shares of Common Stock with a Grant Date of [,] under the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the “*Plan*”).

1. Purchase and Sale of Shares; Vesting.

(a) Purchase and Sale. The Company hereby sells to the Grantee, and the Grantee hereby purchases from the Company, on [], 2021, the number of Shares set forth in the Stock Option Exercise Notice ([] Shares) dated [], pursuant to the Grant Notice and Option Agreement, for the aggregate Option Exercise Price for the Shares so purchased.

(b) Vesting. The risk of forfeiture shall lapse with respect to the Shares, and such Shares shall become vested, on the respective dates indicated on the Vesting Schedule set forth in the Grant Notice.

(c) Investment Representations. In connection with the purchase and sale of the Shares contemplated by Section 1(a) above, the Grantee hereby represents and warrants to the Company as follows:

(i) The Grantee is purchasing the Shares for the Grantee’s own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) The Grantee has had such an opportunity as he or she has deemed adequate to obtain from the Company such information as is necessary to permit him or her to evaluate the merits and risks of the Grantee’s investment in the Company and has consulted with the Grantee’s own advisers with respect to the Grantee’s investment in the Company.

(iii) The Grantee has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) The Grantee can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(v) The Grantee understands that the Shares are not registered under the Act (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or “blue sky” laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Act and under any applicable state securities or “blue sky” laws (or exemptions from the registration requirements thereof). The Grantee further acknowledges that certificates representing the Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) The Grantee has read and understands the Plan and acknowledges and agrees that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(vii) The Grantee understands and agrees that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(viii) The Grantee understands and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(ix) The Grantee understands and agrees that the Grantee may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

2. Repurchase Right. Upon a Termination Event, the Company shall have the right to repurchase Shares of Restricted Stock that are unvested as of the date of such Termination Event as set forth in Section 9(c) of the Plan.

3. Restrictions on Transfer of Shares. The Shares (whether or not vested) shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Restricted Stock Agreement shall be subject to and governed by all the terms and conditions of the Plan.

5. Miscellaneous Provisions.

(a) Record Owner; Dividends. The Grantee and any Permitted Transferees, during the duration of this Agreement, shall be considered the record owners of and shall be entitled to vote the Shares if and to the extent the Shares are entitled to voting rights. The Grantee and any Permitted Transferees shall be entitled to receive all dividends and any other distributions declared on the Shares; *provided, however*, that the Company is under no duty to declare any such dividends or to make any such distribution.

(b) Section 83(b) Election. The Grantee shall consult with the Grantee’s tax advisor to determine whether it would be appropriate for the Grantee to make an election under Section 83(b) of the Code with respect to the Shares. Any such election must be filed with the Internal Revenue Service within thirty (30) days of the date of exercise. If the Grantee makes an election under Section 83(b) of the Code, the Grantee shall give prompt notice to the Company (and provide a copy of such election to the Company). A sample Section 83(b) election is attached to this Agreement as Exhibit A.

(c) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(d) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(e) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(f) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(g) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(h) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(i) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(j) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

6. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or the Shares, this Agreement, or the breach, termination or validity of the Plan, the Shares or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the “J.A.M.S. Rules”). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1—16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Boston, Massachusetts.

(b) The arbitration shall commence within 60 days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party’s witness or expert. The arbitrator’s decision and award shall be made and delivered within six months of the selection of the arbitrator. The arbitrator’s decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Grantee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a “Party”) covenants and agrees that such party will participate in the arbitration in good faith. This Section 6 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees 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 (except as protected by applicable law), 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 Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

The foregoing Restricted Stock Agreement is hereby accepted and the terms and conditions thereof are hereby agreed to by the undersigned as of the date written in Section 1(a) above.

UPSTREAM BIO, INC.

By: _____
Name: [●]
Title: [●]
Address: _____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof and understands that the Shares purchased hereby are subject to the terms of the Plan, the Grant Notice, and this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Grant Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 6 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

By: _____
Name: [●]
Title: [●]
Address: _____

[SPOUSE'S CONSENT²
I acknowledge that I have read the
foregoing Incentive Stock Option
Agreement and understand the contents
thereof.
_____]

² A spouse's consent is recommended only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

EXHIBIT A

Section 83(b) Election

The undersigned hereby elects pursuant to §83(b) of the Internal Revenue Code of 1986, as amended, to include in gross income as compensation for services the excess (if any) of the fair market value of the shares described below over the amount paid for those shares.

1. The name, taxpayer identification number, address of the undersigned, and the taxable year for which this election is being made are:

Name: _____

Address: _____

Social Security No.: _____

Taxable Year: Calendar Year 20__

2. The property which is the subject of this election is [number of unvested shares] shares of common stock of Upstream Bio, Inc.

3. The property was transferred to the undersigned on [date of purchase/transfer].

4. The property is subject to the following restrictions:

The Shares will be subject to restrictions on transfer and risk of forfeiture upon termination of service relationship and in certain other events.

5. The fair market value of the property at time of transfer (determined without regard to any restrictions other than nonlapse restrictions as defined in §1.83-3(h) of the Income Tax Regulations) is \$[current FMV] per share x [number of unvested shares] shares = \$_____.

6. For the property transferred, the undersigned paid \$[exercise price] per share x [number of unvested shares] shares = \$_____.

7. The amount to include in gross income is \$[amount reported in Item 5 minus the amount reported in Item 6].

The undersigned taxpayer will file this election with the Internal Revenue Service Office with which the taxpayer files his or her annual income tax return not later than 30 days after the date of transfer of the property, at the IRS address listed for the taxpayer's state under "Are you not including a check or money order . . ." given in *Where Do You File* in the Instructions for Form 1040 and the Instructions for Form 1040A (which information can also be found at: <https://www.irs.gov/uac/where-to-file-addresses-for-taxpayers-and-tax-professionals>). A copy of the election will also be furnished to the person for whom the services were performed. The undersigned is the person performing services in connection with which the property was transferred.

Dated: _____, 20__

Taxpayer

**RESTRICTED STOCK AWARD NOTICE
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

Pursuant to the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the "**Plan**"), Upstream Bio, Inc., a Delaware corporation (together with any successor, the "**Company**"), hereby grants, sells and issues to the individual named below, the Shares at the Per Share Purchase Price, subject to the terms and conditions set forth in this Restricted Stock Award Notice (the "**Award Notice**"), the attached Restricted Stock Agreement (the "**Agreement**") and the Plan. The Grantee agrees to the provisions set forth herein and acknowledges that each such provision is a material condition of the Company's agreement to issue and sell the Shares to him or her. The Company hereby acknowledges receipt of \$[•] in full payment for the Shares. All references to share prices and amounts herein shall be equitably adjusted to reflect stock splits, stock dividends, recapitalizations, mergers, reorganizations and similar changes affecting the capital stock of the Company, and any shares of capital stock of the Company received on or in respect of Shares in connection with any such event (including any shares of capital stock or any right, option or warrant to receive the same or any security convertible into or exchangeable for any such shares or received upon conversion of any such shares) shall be subject to this Agreement on the same basis and extent at the relevant time as the Shares in respect of which they were issued, and shall be deemed Shares as if and to the same extent they were issued at the date hereof.

Name of Grantee: _____ (the "**Grantee**")
No. of Shares: _____ Shares of Common Stock (the "**Shares**")
Grant Date: _____, ____
Date of Purchase of Shares: _____, ____
Vesting Commencement Date: _____, ____ (the "**Vesting Commencement Date**")
Per Share Purchase Price: \$ _____ (the "**Per Share Purchase Price**")

Vesting Schedule: [25] percent of the Shares shall vest on the [first] anniversary of the Vesting Commencement Date; provided that the Grantee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining [75] percent of the Shares shall vest in [36] equal monthly installments following the first anniversary of the Vesting Commencement Date, provided the Grantee continues to have a Service Relationship with the Company at such time. Notwithstanding anything in the Agreement to the contrary in the case of a Sale Event, the Shares of Restricted Stock shall be treated as provided in Section 3(c) of the Plan [; *provided, however,* that INSERT ANY ACCELERATED VESTING PROVISION HERE].

Attachments: Restricted Stock Agreement, 2021 Stock Option and Grant Plan

**RESTRICTED STOCK AGREEMENT
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Award Notice and the Plan.

1. Purchase and Sale of Shares; Vesting; Investment Representations.

(a) Purchase and Sale. The Company hereby sells to the Grantee, and the Grantee hereby purchases from the Company, the number of Shares set forth in the Award Notice for the Per Share Purchase Price.

(b) Vesting. Initially, all of the Shares are non-transferable and subject to a substantial risk of forfeiture and are Shares of Restricted Stock. The risk of forfeiture shall lapse with respect to the Shares on the respective dates indicated on the Vesting Schedule set forth in the Award Notice.

(c) Investment Representations. In connection with the purchase and sale of the Shares contemplated by Section 1(a) above, the Grantee hereby represents and warrants to the Company as follows:

(i) The Grantee is purchasing the Shares for the Grantee's own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) The Grantee has had such an opportunity as he or she has deemed adequate to obtain from the Company such information as is necessary to permit him or her to evaluate the merits and risks of the Grantee's investment in the Company and has consulted with the Grantee's own advisers with respect to the Grantee's investment in the Company.

(iii) The Grantee has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) The Grantee can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(v) The Grantee understands that the Shares are not registered under the Act (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Act and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirements thereof). The Grantee further acknowledges that certificates representing the Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) The Grantee has read and understands the Plan and acknowledges and agrees that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(vii) The Grantee understands and agrees that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(viii) The Grantee understands and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(ix) The Grantee understands and agrees that the Grantee may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

2. Repurchase Right. Upon a Termination Event, the Company shall have the right to repurchase Shares of Restricted Stock that are unvested as of the date of such Termination Event as set forth in Section 9(c) of the Plan.

3. Restrictions on Transfer of Shares. The Shares (whether or not vested) shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Restricted Stock Award shall be subject to and governed by all the terms and conditions of the Plan.

5. Miscellaneous Provisions.

(a) Record Owner; Dividends. The Grantee and any Permitted Transferees, during the duration of this Agreement, shall be considered the record owners of and shall be entitled to vote the Shares if and to the extent the Shares are entitled to voting rights. The Grantee and any Permitted Transferees shall be entitled to receive all dividends and any other distributions declared on the Shares; *provided, however*, that the Company is under no duty to declare any such dividends or to make any such distribution.

(b) Section 83(b) Election. The Grantee shall consult with the Grantee's tax advisor to determine whether it would be appropriate for the Grantee to make an election under Section 83(b) of the Code with respect to this Award. Any such election must be filed with the Internal Revenue Service within thirty (30) days of the date of this Award. If the Grantee makes an election under Section 83(b) of the Code, the Grantee shall give prompt notice to the Company (and provide a copy of such election to the Company). A sample Section 83(b) election is attached to this Agreement as Exhibit A.

(c) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(d) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(e) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(f) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(g) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(h) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(i) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(j) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(k) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Award and supersedes all prior agreements and discussions between the parties concerning such subject matter, including but not limited to, any written or oral offer letter or consulting or service agreement between the parties that provides for the issuance of equity in the Company.

6. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or the Shares, this Agreement, or the breach, termination or validity of the Plan, the Shares or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the “*J.A.M.S. Rules*”). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1—16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Boston, Massachusetts.

(b) The arbitration shall commence within sixty (60) days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three (3) depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven (7) business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party’s witness or expert. The arbitrator’s decision and award shall be made and delivered within six (6) months of the selection of the arbitrator. The arbitrator’s decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Grantee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a “*Party*”) covenants and agrees that such party will participate in the arbitration in good faith. This Section 6 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees 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 (except as protected by applicable law), 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 Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

The foregoing Restricted Stock Agreement is hereby accepted and the terms and conditions thereof are hereby agreed to by the undersigned as of the date of purchase of Shares above written.

UPSTREAM BIO, INC.

By: _____
Name: [•]
Title: [•]
Address: _____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof and understands that the Shares granted hereby are subject to the terms of the Plan and of this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Award Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 6 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

By: _____
Name: [•]
Title: [•]
Address: _____

[SPOUSE'S CONSENT¹

I acknowledge that I have read the foregoing Restricted Stock Agreement and understand the contents thereof.

_____]

¹ A spouse's consent is recommended only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

EXHIBIT A

Section 83(b) Election

The undersigned hereby elects pursuant to §83(b) of the Internal Revenue Code of 1986, as amended, to include in gross income as compensation for services the excess (if any) of the fair market value of the shares described below over the amount paid for those shares.

1. The name, taxpayer identification number, address of the undersigned, and the taxable year for which this election is being made are:

Name: _____

Address: _____

Social Security No.: _____

Taxable Year: [•]

2. The property which is the subject of this election is [number of unvested shares] shares of common stock of Upstream Bio, Inc.

3. The property was transferred to the undersigned on [date of purchase/transfer].

4. The property is subject to the following restrictions:

The Shares will be subject to restrictions on transfer and risk of forfeiture upon termination of service relationship and in certain other events.

5. The fair market value of the property at time of transfer (determined without regard to any restrictions other than nonlapse restrictions as defined in §1.83-3(h) of the Income Tax Regulations) is \$0.001 per share x [number of unvested shares] shares = \$[•].

6. For the property transferred, the undersigned paid \$[•] per share x [number of unvested shares] shares = \$[•].

7. The amount to include in gross income is \$[amount reported in Item 5 minus the amount reported in Item 6].

The undersigned taxpayer will file this election with the Internal Revenue Service Office with which the taxpayer files his or her annual income tax return not later than 30 days after the date of transfer of the property, at the IRS address listed for the taxpayer's state under "and you **ARE NOT ENCLOSING A PAYMENT . . .**" in the instructions for Form 1040 (which information can also be found by clicking on your state at: <https://www.irs.gov/filing/where-to-file-paper-tax-returns-with-or-without-a-payment>). A copy of the election will also be furnished to the person for whom the services were performed. The undersigned is the person performing services in connection with which the property was transferred.

Dated: _____, {Today Format "yyyy"}
Taxpayer _____

**EARLY EXERCISE
INCENTIVE STOCK OPTION GRANT NOTICE
UNDER THE UPSTREAM BIO, INC.**

2021 STOCK OPTION AND GRANT PLAN

Pursuant to the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the "**Plan**"), Upstream Bio, Inc., a Delaware corporation (together with any successor thereto, the "**Company**"), has granted to the individual named below, an option (the "**Stock Option**") to purchase on or prior to the Expiration Date, or such earlier date as is specified herein, all or any part of the number of shares of Common Stock, par value \$0.001 per share ("**Common Stock**"), of the Company indicated below (the "**Shares**"), at the Option Exercise Price per share, subject to the terms and conditions set forth in this Early Exercise Incentive Stock Option Grant Notice (the "**Grant Notice**"), the attached Early Exercise Incentive Stock Option Agreement (the "**Agreement**") and the Plan. This Stock Option is intended to qualify as an "incentive stock option" as defined in Section 422(b) of the Internal Revenue Code of 1986, as amended from time to time (the "**Code**"). To the extent that any portion of the Stock Option does not so qualify, it shall be deemed a non-qualified stock option.

Name of Optionee: _____ (the "**Optionee**")

No. of Shares: _____ Shares of Common Stock

Grant Date: _____

Vesting Commencement Date: _____ (the "**Vesting Commencement Date**")

Expiration Date: _____ (the "**Expiration Date**")

Option Exercise Price/Share: \$ _____ (the "**Option Exercise Price**")

Vesting Schedule: [25] percent of the Shares shall vest on the first anniversary of the Vesting Commencement Date; provided that the Optionee continues to have a Service Relationship with the Company at such time. Thereafter, the remaining [75] percent of the Shares shall vest in [36] equal monthly installments following the first anniversary of the Vesting Commencement Date, provided the Optionee continues to have a Service Relationship with the Company on each vesting date. Notwithstanding anything in the Agreement to the contrary, in the case of a Sale Event, this Stock Option and the Shares shall be treated as provided in Section 3(c) of the Plan[; *provided, however, that INSERT ANY ACCELERATED VESTING PROVISION HERE*].

Attachments: Early Exercise Incentive Stock Option Agreement, Restricted Stock Agreement, 2021 Stock Option and Grant Plan

**EARLY EXERCISE
INCENTIVE STOCK OPTION AGREEMENT
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Grant Notice and the Plan.

1. Vesting, Exercisability and Termination.

(a) This Stock Option shall be immediately exercisable, regardless of whether the Shares are vested.

(b) Except as set forth below, and subject to the determination of the Committee in its sole discretion to accelerate the vesting schedule hereunder, the Shares shall be vested on the respective dates indicated below:

(i) All Shares shall initially be unvested.

(ii) The Shares shall vest in accordance with the Vesting Schedule set forth in the Grant Notice.

(c) Termination. Except as may otherwise be provided by the Committee, if the Optionee's Service Relationship is terminated, the period within which to exercise this Stock Option will be subject to earlier termination as set forth below (and if not exercised within such period, shall thereafter terminate subject, in each case to Section 3(c) of the Plan):

(i) Termination Due to Death or Disability. If the Optionee's Service Relationship terminates by reason of such Optionee's death or Disability, this Stock Option may continue to be exercised, to the extent the Shares are vested on the date of termination, by the Optionee, the Optionee's legal representative or legatee for a period of twelve (12) months from the date of death or Disability or until the Expiration Date, if earlier.

(ii) Other Termination. If the Optionee's Service Relationship terminates for any reason other than death or Disability, and unless otherwise determined by the Committee, this Stock Option may continue to be exercised, to the extent the Shares are vested on the date of termination, for a period of ninety (90) days from the date of termination or until the Expiration Date, if earlier; *provided, however*, that if the Optionee's Service Relationship is terminated for Cause, this Stock Option shall terminate immediately upon the date of such termination.

(d) For purposes hereof, the Committee's determination of the reason for termination of the Optionee's Service Relationship shall be conclusive and binding on the Optionee and his or her representatives or legatees. Any portion of this Stock Option with respect to Shares that are not vested on the date of termination of the Service Relationship shall terminate immediately and be null and void.

(e) It is understood and intended that this Stock Option is intended to qualify as an “incentive stock option” as defined in Section 422 of the Code to the extent permitted under applicable law. Accordingly, the Optionee understands that in order to obtain the benefits of an incentive stock option under Section 422 of the Code, no sale or other disposition may be made of Shares for which incentive stock option treatment is desired within the one-year period beginning on the day after the day of the transfer of such Shares to him or her, nor within the two-year period beginning on the day after Grant Date of this Stock Option and further that this Stock Option must be exercised within three (3) months after termination of employment as an employee (or twelve (12) months in the case of death or disability) to qualify as an incentive stock option. If the Optionee disposes (whether by sale, gift, transfer or otherwise) of any such Shares within either of these periods, he or she will notify the Company within thirty (30) days after such disposition. The Optionee also agrees to provide the Company with any information concerning any such dispositions required by the Company for tax purposes. Further, to the extent this Stock Option and any other incentive stock options of the Optionee having an aggregate Fair Market Value in excess of \$100,000 (determined as of the Grant Date) first become exercisable in any year, such options will not qualify as incentive stock options.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Stock Option only in the following manner: Prior to the Expiration Date, the Optionee may deliver a Stock Option exercise notice (an “**Exercise Notice**”) in the form of Appendix A hereto indicating his or her election to purchase some or all of the Shares. Such notice shall specify the number of Shares to be purchased. To the extent this Stock Option is only partially exercised, such exercise shall first be with respect to the Shares, if any, that have previously vested, and then with respect to the Shares that will next vest, with the Shares that vest at the latest date being exercised last. Payment of the purchase price may be made by one or more of the methods described in Section 5 of the Plan, subject to the limitations contained in such Section of the Plan, including the requirement that the Committee specifically approve in advance certain payment methods.

(b) In the event the Optionee exercises a portion of this Stock Option with respect to Shares that have not vested, the Optionee shall also deliver a Restricted Stock Agreement covering such unvested Shares in the form of Appendix B hereto (the “**Restricted Stock Agreement**”) with the same vesting schedule for such Shares as set forth for such Shares herein.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date.

3. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan.

4. Transferability of Stock Option. This Stock Option is personal to the Optionee and is not transferable by the Optionee in any manner other than by will or by the laws of descent and distribution. The Stock Option may be exercised during the Optionee's lifetime only by the Optionee (or by the Optionee's guardian or personal representative in the event of the Optionee's incapacity). The Optionee may elect to designate a beneficiary by providing written notice of the name of such beneficiary to the Company, and may revoke or change such designation at any time by filing written notice of revocation or change with the Company; such beneficiary may exercise the Optionee's Stock Option in the event of the Optionee's death to the extent provided herein. If the Optionee does not designate a beneficiary, or if the designated beneficiary predeceases the Optionee, the legal representative of the Optionee may exercise this Stock Option to the extent provided herein in the event of the Optionee's death.

5. Restrictions on Transfer of Shares. The Shares acquired upon exercise of the Stock Option shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan and, if applicable, the Restricted Stock Agreement.

6. Miscellaneous Provisions.

(a) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(b) Adjustments for Changes in Capital Structure. If, as a result of any reorganization, recapitalization, reincorporation, reclassification, stock dividend, stock split, reverse stock split or other similar change in the Common Stock, the outstanding shares of Common Stock are increased or decreased or are exchanged for a different number or kind of securities of the Company, the restrictions contained in this Agreement shall apply with equal force to additional and/or substitute securities, if any, received by the Optionee in exchange for, or by virtue of his or her ownership of, this Stock Option or Shares acquired pursuant thereto.

(c) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Optionee.

(d) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(e) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(f) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(g) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Optionee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(h) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, permitted assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(i) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

(j) Integration. This Agreement constitutes the entire agreement between the parties with respect to this Stock Option and supersedes all prior agreements and discussions between the parties concerning such subject matter.

7. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or this Stock Option, this Agreement, or the breach, termination or validity of the Plan, this Stock Option or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the "J.A.M.S. Rules"). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1—16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Boston, Massachusetts.

(b) The arbitration shall commence within sixty (60) days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three (3) depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven (7) business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party's witness or expert. The arbitrator's decision and award shall be made and delivered within six (6) months of the selection of the arbitrator. The arbitrator's decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Optionee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a "Party") covenants and agrees that such party will participate in the arbitration in good faith. This Section 7 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees 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 (except as protected by applicable law), 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 Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned as of the date first above written.

UPSTREAM BIO, INC.

By: _____
Name: [•]
Title: [•]
Address: _____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof, and understands that this Stock Option is subject to the terms of the Plan and this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Grant Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 7 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

OPTIONEE:

By: _____
Name: [•]
Title: [•]
Address: _____

[SPOUSE'S CONSENT
I acknowledge that I have read the
foregoing Incentive Stock Option
Agreement and understand the contents
thereof.
_____]

¹ A spouse's consent is recommended only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

DESIGNATED BENEFICIARY:

By: _____

Name: [•]

Title: [•]

Address: _____

Appendix A

STOCK OPTION EXERCISE NOTICE

UPSTREAM BIO, INC.

Attention: [_____]

Pursuant to the terms of the grant notice and stock option agreement between the undersigned and Upstream Bio, Inc. (the "Company") dated _____ (the "Agreement") under the Upstream Bio, Inc. 2021 Stock Option and Grant Plan, I, [Insert Name] _____, hereby [Circle One] partially/fully exercise such option by including herein payment in the amount of \$_____ representing the purchase price for [Fill in number of Shares] _____ Shares. I have chosen the following form(s) of payment:

1. Cash

2. Certified or bank check payable to Upstream Bio, Inc.

3. Other (as referenced in the Agreement and described in the Plan (please describe))
_____.

In connection with my exercise of the option as set forth above, I hereby represent and warrant to the Company as follows:

(i) I am purchasing the Shares for my own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) I have had such an opportunity as I have deemed adequate to obtain from the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company and have consulted with my own advisers with respect to my investment in the Company.

(iii) I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period of time.

(v) I understand that the Shares may not be registered under the Securities Act of 1933 (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or "blue sky" laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Securities Act of 1933 and under any applicable state securities or "blue sky" laws (or exemptions from the registration requirement thereof). I further acknowledge that certificates representing Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) To the extent required, I have executed and delivered to the Company the Restricted Stock Agreement attached as Appendix B to the Agreement.

(vii) I have read and understand the Plan and acknowledge and agree that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(viii) I understand and agree that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(ix) I understand and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(x) I understand and agree that I may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan..

Sincerely yours,

Name:

Address:

Date: _____

Appendix B

**RESTRICTED STOCK AGREEMENT FOR EARLY EXERCISE OPTION
UNDER THE UPSTREAM BIO, INC.
2021 STOCK OPTION AND GRANT PLAN**

All capitalized terms used herein and not otherwise defined shall have the respective meanings set forth in the Early Exercise Incentive Stock Option Grant Notice (the “Grant **Notice**”) and Early Exercise Incentive Stock Option Agreement (the “Option Agreement”) between Upstream Bio, Inc. (the “Company”) and [] (the “Grantee”) for [] Shares of Common Stock with a Grant Date of [], under the Upstream Bio, Inc. 2021 Stock Option and Grant Plan (the “Plan”).

1. Purchase and Sale of Shares; Vesting.

(a) Purchase and Sale. The Company hereby sells to the Grantee, and the Grantee hereby purchases from the Company, on [], 2021, the number of Shares set forth in the Stock Option Exercise Notice ([] Shares) dated [], pursuant to the Grant Notice and Option Agreement, for the aggregate Option Exercise Price for the Shares so purchased.

(b) Vesting. The risk of forfeiture shall lapse with respect to the Shares, and such Shares shall become vested, on the respective dates indicated on the Vesting Schedule set forth in the Grant Notice.

(c) Investment Representations. In connection with the purchase and sale of the Shares contemplated by Section 1(a) above, the Grantee hereby represents and warrants to the Company as follows: (i) The Grantee is purchasing the Shares for the Grantee’s own account for investment only, and not for resale or with a view to the distribution thereof.

(ii) The Grantee has had such an opportunity as he or she has deemed adequate to obtain from the Company such information as is necessary to permit him or her to evaluate the merits and risks of the Grantee’s investment in the Company and has consulted with the Grantee’s own advisers with respect to the Grantee’s investment in the Company.

(iii) The Grantee has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(iv) The Grantee can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(v) The Grantee understands that the Shares are not registered under the Act (it being understood that the Shares are being issued and sold in reliance on the exemption provided in Rule 701 thereunder) or any applicable state securities or “blue sky” laws and may not be sold or otherwise transferred or disposed of in the absence of an effective registration statement under the Act and under any applicable state securities or “blue sky” laws (or exemptions from the registration requirements thereof). The Grantee further acknowledges that certificates representing the Shares will bear restrictive legends reflecting the foregoing and/or that book entries for uncertificated Shares will include similar restrictive notations.

(vi) The Grantee has read and understands the Plan and acknowledges and agrees that the Shares are subject to all of the relevant terms of the Plan, including without limitation, the transfer restrictions set forth in Section 9 of the Plan.

(vii) The Grantee understands and agrees that the Company has a right of first refusal with respect to the Shares pursuant to Section 9(b) of the Plan.

(viii) The Grantee understands and agree that the Company has certain repurchase rights with respect to the Shares pursuant to Section 9(c) of the Plan.

(ix) The Grantee understands and agrees that the Grantee may not sell or otherwise transfer or dispose of the Shares for a period of time following the effective date of a public offering by the Company as described in Section 9(f) of the Plan.

2. Repurchase Right. Upon a Termination Event, the Company shall have the right to repurchase the Shares of Restricted Stock that are unvested as of the date of such Termination Event as set forth in Section 9(c) of the Plan.

3. Restrictions on Transfer of Shares. The Shares (whether or not vested) shall be subject to certain transfer restrictions and other limitations including, without limitation, the provisions contained in Section 9 of the Plan

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Restricted Stock Agreement shall be subject to and governed by all the terms and conditions of the Plan.

5. Miscellaneous Provisions.

(a) Record Owner; Dividends. The Grantee and any Permitted Transferees, during the duration of this Agreement, shall be considered the record owners of and shall be entitled to vote the Shares if and to the extent the Shares are entitled to voting rights. The Grantee and any Permitted Transferees shall be entitled to receive all dividends and any other distributions declared on the Shares; provided, however, that the Company is under no duty to declare any such dividends or to make any such distribution.

(b) Section 83(b) Election. The Grantee shall consult with the Grantee's tax advisor to determine whether it would be appropriate for the Grantee to make an election under Section 83(b) of the Code with respect to the Shares. Any such election must be filed with the Internal Revenue Service within 30 days of the date of exercise. If the Grantee makes an election under Section 83(b) of the Code, the Grantee shall give prompt notice to the Company (and provide a copy of such election to the Company). A sample Section 83(b) election is attached to this Agreement as Exhibit A.

(c) Equitable Relief. The parties hereto agree and declare that legal remedies may be inadequate to enforce the provisions of this Agreement and that equitable relief, including specific performance and injunctive relief, may be used to enforce the provisions of this Agreement.

(d) Change and Modifications. This Agreement may not be orally changed, modified or terminated, nor shall any oral waiver of any of its terms be effective. This Agreement may be changed, modified or terminated only by an agreement in writing signed by the Company and the Grantee.

(e) Governing Law. This Agreement shall be governed by and construed in accordance with the General Corporation Law of the State of Delaware as to matters within the scope thereof, and as to all other matters shall be governed by and construed in accordance with the internal laws of the Commonwealth of Massachusetts, without regard to conflict of law principles that would result in the application of any law other than the law of the Commonwealth of Massachusetts.

(f) Headings. The headings are intended only for convenience in finding the subject matter and do not constitute part of the text of this Agreement and shall not be considered in the interpretation of this Agreement.

(g) Saving Clause. If any provision(s) of this Agreement shall be determined to be illegal or unenforceable, such determination shall in no manner affect the legality or enforceability of any other provision hereof.

(h) Notices. All notices, requests, consents and other communications shall be in writing and be deemed given when delivered personally, by telex or facsimile transmission or when received if mailed by first class registered or certified mail, postage prepaid. Notices to the Company or the Grantee shall be addressed as set forth underneath their signatures below, or to such other address or addresses as may have been furnished by such party in writing to the other.

(i) Benefit and Binding Effect. This Agreement shall be binding upon and shall inure to the benefit of the parties hereto, their respective successors, assigns, and legal representatives. The Company has the right to assign this Agreement, and such assignee shall become entitled to all the rights of the Company hereunder to the extent of such assignment.

(j) Counterparts. For the convenience of the parties and to facilitate execution, this Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same document.

6. Dispute Resolution.

(a) Except as provided below, any dispute arising out of or relating to the Plan or the Shares, this Agreement, or the breach, termination or validity of the Plan, the Shares or this Agreement, shall be finally settled by binding arbitration conducted expeditiously in accordance with the J.A.M.S./Endispute Comprehensive Arbitration Rules and Procedures (the "J.A.M.S. Rules"). The arbitration shall be governed by the United States Arbitration Act, 9 U.S.C. Sections 1—16, and judgment upon the award rendered by the arbitrators may be entered by any court having jurisdiction thereof. The place of arbitration shall be Boston, Massachusetts.

(b) The arbitration shall commence within sixty (60) days of the date on which a written demand for arbitration is filed by any party hereto. In connection with the arbitration proceeding, the arbitrator shall have the power to order the production of documents by each party and any third-party witnesses. In addition, each party may take up to three (3) depositions as of right, and the arbitrator may in his or her discretion allow additional depositions upon good cause shown by the moving party. However, the arbitrator shall not have the power to order the answering of interrogatories or the response to requests for admission. In connection with any arbitration, each party to the arbitration shall provide to the other, no later than seven (7) business days before the date of the arbitration, the identity of all persons that may testify at the arbitration and a copy of all documents that may be introduced at the arbitration or considered or used by a party's witness or expert. The arbitrator's decision and award shall be made and delivered within six (6) months of the selection of the arbitrator. The arbitrator's decision shall set forth a reasoned basis for any award of damages or finding of liability. The arbitrator shall not have power to award damages in excess of actual compensatory damages and shall not multiply actual damages or award punitive damages, and each party hereby irrevocably waives any claim to such damages.

(c) The Company, the Grantee, each party to the Agreement and any other holder of Shares issued pursuant to this Agreement (each, a "Party") covenants and agrees that such party will participate in the arbitration in good faith. This Section 6 applies equally to requests for temporary, preliminary or permanent injunctive relief, except that in the case of temporary or preliminary injunctive relief any party may proceed in court without prior arbitration for the limited purpose of avoiding immediate and irreparable harm.

(d) Each Party (i) hereby irrevocably submits to the jurisdiction of any United States District Court of competent jurisdiction for the purpose of enforcing the award or decision in any such proceeding, (ii) hereby waives, and agrees 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 (except as protected by applicable law), 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 Agreement or the subject matter hereof may not be enforced in or by such court, and (iii) hereby waives and agrees not to seek any review by any court of any other jurisdiction which may be called upon to grant an enforcement of the judgment of any such court. Each Party hereby consents to service of process by registered mail at the address to which notices are to be given. Each Party agrees that its, his or her submission to jurisdiction and its, his or her consent to service of process by mail is made for the express benefit of each other Party. Final judgment against any Party in any such action, suit or proceeding may be enforced in other jurisdictions by suit, action or proceeding on the judgment, or in any other manner provided by or pursuant to the laws of such other jurisdiction.

[SIGNATURE PAGE FOLLOWS]

The foregoing Restricted Stock Agreement is hereby accepted and the terms and conditions thereof are hereby agreed to by the undersigned as of the date written in Section 1(a) above.

UPSTREAM BIO, INC.

By: _____
Name: [•]
Title: [•]
Address: _____

The undersigned hereby acknowledges receiving and reviewing a copy of the Plan, including, without limitation, Section 9 thereof and understands that the Shares purchased hereby are subject to the terms of the Plan, the Grant Notice, and this Agreement. This Agreement is hereby accepted, and the terms and conditions of the Plan, the Grant Notice and this Agreement, SPECIFICALLY INCLUDING THE ARBITRATION PROVISIONS SET FORTH IN SECTION 6 OF THIS AGREEMENT, are hereby agreed to, by the undersigned as of the date first above written.

GRANTEE:

By: _____
Name: [•]
Title: [•]
Address: _____

[SPOUSE'S CONSENT2
I acknowledge that I have read the
foregoing Incentive Stock Option
Agreement and understand the contents thereof.
_____]

² A spouse's consent is recommended only if the Optionee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, Washington and Wisconsin.

EXHIBIT A
Section 83(b) Election

The undersigned hereby elects pursuant to §83(b) of the Internal Revenue Code of 1986, as amended, to include in gross income as compensation for services the excess (if any) of the fair market value of the shares described below over the amount paid for those shares.

1. The name, taxpayer identification number, address of the undersigned, and the taxable year for which this election is being made are:

Name: _____

Address: _____

Social Security No.: _____

Taxable Year: Calendar Year 20__

2. The property which is the subject of this election is [number of unvested shares] shares of common stock of Upstream Bio, Inc.
3. The property was transferred to the undersigned on [date of purchase/transfer].
4. The property is subject to the following restrictions: The Shares will be subject to restrictions on transfer and risk of forfeiture upon termination of service relationship and in certain other events.
5. The fair market value of the property at time of transfer (determined without regard to any restrictions other than nonlapse restrictions as defined in §1.83-3(h) of the Income Tax Regulations) is \$[current FMV] per share x [number of unvested shares] shares = \$_____.
6. For the property transferred, the undersigned paid \$[exercise price] per share x [number of unvested shares] shares = \$_____.
7. The amount to include in gross income is \$[amount reported in Item 5 minus the amount reported in Item 6].

The undersigned taxpayer will file this election with the Internal Revenue Service Office with which the taxpayer files his or her annual income tax return not later than 30 days after the date of transfer of the property, at the IRS address listed for the taxpayer's state under "Are you not including a check or money order . . ." given in *Where Do You File* in the Instructions for Form 1040 and the Instructions for Form 1040A (which information can also be found at: <https://www.irs.gov/uac/where-to-file-addresses-for-taxpayers-and-tax-professionals>). A copy of the election will also be furnished to the person for whom the services were performed. The undersigned is the person performing services in connection with which the property was transferred.

Dated: _____, 20__

Taxpayer

CERTAIN INFORMATION CONTAINED IN THIS EXHIBIT, MARKED BY [*], HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE THE REGISTRANT HAS DETERMINED THAT IT IS BOTH NOT MATERIAL AND IS THE TYPE THAT THE REGISTRANT TREATS AS PRIVATE OR CONFIDENTIAL.**

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this “Agreement”) dated as of October 14, 2021 (“Effective Date”), is entered into between UPSTREAM BIO, INC., a Delaware corporation (“Upstream”), having a place of business at care of: Maruho Hatsujyo Innovations, 175 Washington Street, Norwell, MA 02061, USA, and MARUHO CO., LTD., a Japanese corporation (“Maruho”), having a place of business at 1-5-22, Nakatsu, Kita-ku, Osaka, 5310071, Japan.

RECITALS

WHEREAS, the parties recognize that Maruho had identified the Astellas Assets through its long-term relationship with Astellas, had a formative role in securing the Astellas Asset Purchase Agreement, and is a co-founder of Upstream.

WHEREAS, the parties recognize that Upstream, who has signed the Astellas Asset Purchase Agreement, will be responsible for and lead the global development of the Astellas Assets.

WHEREAS, Maruho engages in a pharmaceutical activities such as research and development, manufacturing, marketing, promoting and distributing prescription drugs in Japan.

WHEREAS, Upstream wishes to grant to Maruho, and Maruho wishes to accept from Upstream, exclusive, irrevocable, perpetual, royalty-free license under the Assets for Japan, as more fully set forth herein, in recognition of Maruho’s role in securing the Astellas Asset Purchase Agreement and its contribution as a co-founder of Upstream.

NOW, THEREFORE, in consideration of the mutual agreements and covenants set forth herein and other good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, the parties, intending to be legally bound hereby, agree to the foregoing and as follows:

1. DEFINITIONS.

For the purposes of this Agreement, the following terms shall have the respective meanings set forth below, and grammatical variations of such terms shall have corresponding meanings:

1.1 “Affiliate” means, with respect to a party, any entity that controls or is controlled by such party, or is under common control with such party. For purposes of this definition, an entity shall be deemed to control another entity if it owns or controls, directly or indirectly, at least fifty percent (50%) of the voting equity of the other entity (or other comparable interest for an entity other than a corporation).

1.2 “Astellas” means Astellas Pharma Inc.

1.3 “Astellas Assets” means all assets and related intellectual property rights assigned, or to be assigned hereinafter, to Upstream by Astellas pursuant to the Astellas Asset Purchase Agreement.

1.4 “Astellas Asset Purchase Agreement” means the Asset Purchase Agreement between Astellas and Upstream, dated as of October 14, 2021.

1.5 “Bulk Licensed Compound” means the bulk form of the Licensed Compound.

1.6 “Business Day” means any day other than a Saturday, a Sunday or a day on which commercial banks located in Dover, Delaware, or Osaka, Japan are authorized or required by law to remain closed.

1.7 “Change of Control” means (i) a merger or consolidation of Upstream with an unaffiliated third party that results in the voting securities of Upstream outstanding immediately prior thereto, or any securities into which such voting securities have been converted or exchanged, ceasing to represent more than fifty percent (50%) of the combined voting power of the surviving entity or the parent of the surviving entity immediately after such merger or consolidation, or (ii) a transaction or series of related transactions in which an unaffiliated third party (or its Affiliates) becomes the beneficial owner of more than fifty percent (50%) of the combined voting power of the outstanding securities of Upstream, or (iii) the sale or other transfer to an unaffiliated third party of all or substantially all of Upstream’s business to which the subject matter of the Astellas Asset Purchase Agreement relates.

1.8 “Confidential Information” means all information and data that (a) is provided by one party to the other party under this Agreement, and (b) if disclosed in writing or other tangible medium is marked or identified as confidential at the time of disclosure to the recipient, is acknowledged at the time of disclosure to be confidential, or otherwise should reasonably be deemed to be confidential. Notwithstanding the foregoing, Confidential Information of a party shall not include that portion of such information and data which, and only to the extent, the recipient can establish by written documentation: (i) is known to the recipient as evidenced by its written records before receipt thereof from the disclosing party, (ii) is disclosed to the recipient free of confidentiality obligations by a third person who has the right to make such disclosure, (iii) is or becomes part of the public domain through no fault of the recipient, or (iv) the recipient can reasonably establish is independently developed by persons on behalf of recipient without access to or use of the information disclosed by the disclosing party.

1.9 “Japan-specific Studies” means preclinical or clinical studies that are executed specifically in Japan, without participation of any territory outside of Japan.

1.10 “Joint Development Committee” or “JDC” means the joint steering committee, comprising representatives of Upstream and Maruho, described in Section 6.

1.11 “Licensed Compound” means the compound that was designated by Astellas as ASP7266 (as further described in Exhibit A), together with all forms and components thereof.

1.12 “Licensed IP Rights” means, collectively, the Licensed Know-How Rights, Licensed Patent Rights and Licensed Marks.

1.13 “Licensed Know-How Rights” means, collectively, Upstream’s, its Affiliates’ rights in all trade secret and other know-how rights regarding the Licensed Compound, the Product or the manufacture or use thereof to the extent reasonably necessary to research, develop, obtain regulatory approval for or commercialize the Product in Japan, and to have made the Product in accordance with this Agreement for use or sale in Japan, including without limitation all such rights comprising the Astellas Assets (during the term of this Agreement). For clarity, all development data available, with the right to transfer to Maruho, to Upstream from its licensees shall be shared with Maruho under Licensed Know-How Rights.

1.14 “Licensed Marks” means those certain trademarks, trade names, designs and markings owned or controlled by Upstream and upon Maruho’s request licensed by Upstream for use by Maruho under this Agreement in the packaging, labeling, promotion, marketing and sale of the Product in Japan.

1.15 “Licensed Patent Rights” means, collectively, Upstream’s, its Affiliate rights in (a) all patent applications heretofore or hereafter filed for or in Japan which claim, and only to the extent they claim, the Licensed Compound, the Product or the manufacture or use thereof to the extent reasonably necessary or useful to research, develop, obtain regulatory approval for or commercialize the Product in Japan, and to have made the Product in accordance with this Agreement for use or sale in Japan, including without limitation all such rights comprising the Astellas Assets (during the term of this Agreement) (For clarity, the initial Licensed Patent Rights as of the Effective Date shall be set forth in Exhibit B of this Agreement); (b) all patents that have issued or in the future issue from any of the foregoing patent applications, including without limitation utility models, design patents and certificates of invention; and (c) all divisionals, continuations, continuations-in-part, reissues, renewals, extensions or additions to any such patents and patent applications.

1.16 “Lonza” means LONZA SALES AG, incorporated and registered in Switzerland whose registered office is at [***].

1.17 “Lonza Agreement” means the License Agreement between Lonza and Upstream to be executed soon before or after the date of this Agreement (as amended or restated from time to time. Upstream shall not amend any terms and provisions of Lonza Agreement, which have effect on Maruho’s rights and obligations under this Agreement without Maruho’s advance written consent, provided, however, that such consent shall not be unreasonably withheld or rejected.

1.18 “Maruho Product Data” means all data, information and documents from or for the clinical development, regulatory approval or commercialization of the Product for or in Japan generated by or on behalf of Maruho, its Affiliates or sublicensees, including (as applicable and without limitation) safety data (including serious adverse event data), clinical data, regulatory roadmap and submissions, regulatory compliance information, pharmacovigilance, product quality vigilance, considerations for indication selection, and clinical trial design. Maruho Product Data excludes Upstream Product Data.

1.19 “NDA” means a new drug application or similar application for marketing approval of a pharmaceutical product submitted to the PMDA.

1.20 “Orphan Drug Designation” means a grant by the Food and Drug Administration of the United States of a request for designation as an orphan drug under Section 526 of the Federal Food, Drug and Cosmetics Act as amended by Section 2 of the Orphan Drug Act (sections 525-528 (21 U.S.C. §360aa-dd)), and its related regulations (including 21 C.F.R. §316 *et seq.*).

1.21 “Phase II(a) Clinical Trial” means a human clinical trial that is intended to initially evaluate the dosing requirements of a product for a particular indication or indications in patients with the disease or indication under study or that would otherwise satisfy requirements of 21 C.F.R. §312.21(b).

1.22 “Phase II(b) Clinical Trial” means a human clinical trial that is intended to determine the safe and effective dose range of a product for a particular indication or indications in patients with the disease or indication under study or that would otherwise satisfy requirements of 21 C.F.R. §312.21(b) following Phase II(a) Clinical Trial.

1.23 “Phase II(b) Clinical Trial Activities” means Phase II(b) Clinical Trial, and any additional preclinical studies required therefor, in Japan that are required by the PMDA in order to obtain marketing approval for the Product in that indication in Japan.

1.24 “Phase III Clinical Trial” means a pivotal human clinical trial the results of which may be used to establish safety and efficacy of a product as a basis for a NDA.

1.25 “Phase III Clinical Trial Activities” means Phase III Clinical Trial and any additional preclinical or clinical studies in Japan required by the PMDA or any other regulatory authorities in Japan in order to obtain marketing approval for the Product in that indication in Japan.

1.26 “PMDA” means the Pharmaceuticals and Medical Devices Agency in Japan.

1.27 “Product” means any pharmaceutical, biologic or medical device product (or any combination thereof), which (a) was or is developed by or on behalf of Upstream or its Affiliates, and (b) incorporates or uses the Licensed Compound. For clarity, the Product shall include the Bulk Licensed Compounds and Licensed Compounds itself.

1.28 “Regeneron” means Regeneron Pharmaceuticals, Inc., a New York corporation.

1.29 “Regeneron Agreement” means the Letter Agreement between Regeneron and Upstream, to be executed soon before or after the date of this Agreement (as amended or restated from time to time). Upstream shall not amend any terms and provisions of Regeneron Agreement, which have effect on Maruho’s obligation under this Agreement without Maruho’s advance written consent, provided, however, that such consent shall not be unreasonably withheld or rejected.

1.30 “Supported IP Rights” means, collectively, the Supported Know-How Rights and Supported Patent Rights.

1.31 “Supported Know-How Rights” means, collectively, Maruho’s rights in all trade secret and other know-how rights regarding the Licensed Compound, the Product or the manufacture or use thereof to the extent reasonably necessary to develop, obtain regulatory approval for or commercialize the Product other than (during the term of this Agreement) solely in Japan.

1.32 “Supported Patent Rights” means, collectively, Maruho’s rights in (a) all patent applications heretofore or hereafter filed in Japan which claim, and only to the extent they claim, the Licensed Compound, the Product or the manufacture or use thereof to the extent reasonably necessary to develop, obtain regulatory approval for or commercialize the Product other than (during the term of this Agreement) solely in Japan; (b) all patents that have issued or in the future issue from any of the foregoing patent applications, including without limitation utility models, design patents and certificates of invention; and (c) all divisionals, continuations, continuations-in-part, reissues, renewals, extensions or additions to any such patents and patent applications.

1.33 “Third Party Payments” means all royalties and other amounts owing under any Upstream In-License (other than the Astellas Asset Purchase Agreement) reasonably necessary for the development, regulatory approval or commercialization of the Product in Japan.

1.34 “Upstream In-License” means a license, sublicense or other agreement under which Upstream has acquired, or hereafter acquires, rights to the Licensed IP Rights, including without limitation the Lonza Agreement and the Regeneron Agreement.

1.35 “Upstream Product Data” means all data, information and documents from or for the preclinical development, clinical development or regulatory approval of the Product for or applicable to Japan generated by or on behalf of Upstream or its Affiliates, including (as applicable and without limitation) safety data (including serious adverse event data), clinical data, regulatory roadmap and submissions, regulatory compliance information, pharmacovigilance, product quality vigilance, considerations for indication selection, and clinical trial design. For clarity, all Product data available with the right to transfer to Maruho, to Upstream from its licensees shall be shared with Maruho as Upstream Product Data.

2. REPRESENTATIONS AND WARRANTIES.

2.1 By Each Party. Each party represents and warrants to the other party as follows:

2.1.1 Organization. Such party is duly organized, validly existing and in good standing under the laws of the jurisdiction in which it is organized.

2.1.2 Authorization and Enforcement of Obligations. Such party (a) has the requisite power and authority and the legal right to enter into this Agreement and to perform its obligations hereunder; and (b) has taken all requisite action on its part to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder. This Agreement has been duly executed and delivered on behalf of such party, and constitutes a legal, valid, binding obligation, enforceable against such party in accordance with its terms.

2.1.3 Consents. All necessary consents, approvals and authorizations of all governmental authorities and other persons or entities required to be obtained by such party in connection with this Agreement have been obtained.

2.1.4 No Conflict. The execution and delivery of this Agreement and the performance of such party's obligations hereunder (a) do not conflict with or violate any requirement of applicable laws, regulations or orders of governmental bodies; and (b) do not conflict with, or constitute a default under, any contractual obligation of such party.

2.2 By Upstream. Upstream represents and warrants to Maruho that, as of the Effective Date, (a) the Licensed Patent Rights have not been held by a court of competent jurisdiction to be invalid or unenforceable, in whole or in part, (b) Upstream has not received written notice of any claim or litigation by any third party alleging that any of the Licensed IP Rights are invalid or unenforceable, and (c) Upstream has the right to grant the licenses under the Licensed IP Rights pursuant to this Agreement.

2.3 DISCLAIMER OF WARRANTIES. EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN SECTION 2.2, UPSTREAM MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, REGARDING THE LICENSED IP RIGHTS, THE LICENSED COMPOUND OR ANY OTHER MATTER, INCLUDING WITHOUT LIMITATION, ANY REPRESENTATION OR WARRANTY REGARDING VALIDITY, ENFORCEABILITY, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT.

3. LICENSE.

3.1 License Grant to Maruho.

3.1.1 License to Maruho. Subject to the terms and conditions of this Agreement, Upstream hereby grants to Maruho an exclusive (even as to Upstream unless otherwise expressly provided herein), irrevocable, perpetual, royalty-free (except as set forth in Section 4.1) license (with the right to grant sublicenses) under the Licensed IP Rights to research, develop, have made in Japan or outside of Japan by a contract manufacturing organization ("CMO") or contract research organization ("CRO") in each case as set out in Section 5.3 below, use, offer for sale, sell and import the Product in Japan. Except as expressly set forth in this Agreement, Maruho shall not use the Licensed Compound or the Licensed IP Rights outside of Japan.

3.1.2 Sublicenses. Maruho shall have the right to grant sublicenses to its Affiliates or third parties for the purpose of developing, having made, using, offering for sale, selling, importing or commercializing the Product in Japan subject to Upstream's right of first negotiation set forth in Section 8 below. Maruho shall provide Upstream with a copy of each sublicense promptly after executing the same; provided, however, that Maruho shall have the right to redact any confidential terms from the copy provided to Upstream. Any such sublicense shall be subject and subordinate to the terms and conditions of this Agreement, and Maruho shall remain responsible for all payments due to Upstream hereunder.

3.1.3 Reservation of Rights. Notwithstanding anything to the contrary in this Agreement and without restricting the rights not expressly granted by Upstream to Maruho under this Agreement, Upstream retains all rights under the Licensed IP Rights to perform its obligations under this Agreement or under any supply agreement related to this Agreement.

3.2 Grantback License to Upstream.

3.2.1 Maruho hereby grants to Upstream an exclusive, irrevocable, perpetual, royalty-free, worldwide license (with the right to grant sublicenses) under the Supported IP Rights for the purpose of developing, making, having made or commercializing the Product, other than (during the term of this Agreement) to make, have made, use, offer for sale, sell and import the Product in Japan.

3.2.2 Upstream shall use commercially reasonable efforts to obtain a similar grantback license from any third party that enters into an agreement with Upstream or its Affiliate for rights to develop and commercialize the Product outside Japan, and if Upstream is unable to obtain such a grantback license from any such third party, then Upstream shall not grant a sublicense to such third party under the license grant from Maruho under Section 3.2, and any such sublicense granted by Upstream to such third party shall be void.

3.3 No Implied Licenses. Only licenses and rights expressly granted herein shall be of legal force and effect. No license or other right shall be created hereunder by implication, estoppel or otherwise.

4. THIRD PARTY PAYMENT TERMS.

4.1 Third-Party Payments.

4.1.1 Maruho shall pay to Upstream such Third-Party Payments paid or owing by Upstream, on such terms and conditions as set forth in the applicable Upstream In-License and applicable to Upstream that is relating only to the sale of Products by Maruho, its Affiliates and its sublicensees in Japan. Maruho shall make all such payments to Upstream, no later than [***] prior to the date that the applicable Third-Party Payment is due under the applicable Upstream In-License.

4.1.2 If Upstream, in good faith, enters into an Upstream In-License Agreement after the Effective Date that would require Maruho to pay any such Third Party Payments, Upstream promptly shall provide Maruho with a copy of such Upstream In-License Agreement. If, within [***] after receipt of such copy, Maruho gives express written notice that it accepts the terms and conditions thereof, then the patent rights and other intellectual property rights granted to Upstream under such Upstream In-License Agreement shall be included in this Agreement. If Maruho fails to timely give such express written notice, then the patent rights and other intellectual property rights granted to Upstream under such Upstream In-License Agreement shall be excluded from Agreement.

4.2 Payment Reports. Maruho shall furnish to Upstream all reports regarding Third-Party Payments (the “Payment Reports”) in such form and content and on such terms and conditions as set forth in the applicable Upstream In-License and applicable to Upstream, no later than [***] prior to the date that such Payment Report is due under the applicable Upstream In-License. With respect to sales of the Product invoiced in a currency other than United States dollars, all such amounts shall be expressed both in the currency in which the sale is invoiced and in the United States dollar equivalent. The United States dollar equivalent shall be calculated using the exchange rate specified in the applicable Upstream In-License.

4.3 Records and Audits. Maruho shall keep complete and accurate records in sufficient detail to enable all Third-Party Payments to be determined. Upon the written request of Upstream and not more than once in each calendar year, Maruho shall permit an independent certified public accounting firm of nationally recognized standing, selected by Upstream and reasonably acceptable to Maruho, at Upstream’s expense, to have access during normal business hours to such records of Maruho as may be reasonably necessary to verify the accuracy of the Payment Reports hereunder for any year ending not more than [***] prior to the date of such request. The accounting firm shall disclose to Upstream only whether the reports are correct or not and the specific details concerning any discrepancies. No other information shall be shared. If such accounting firm concludes that additional amounts were owed during the audited period, Maruho shall pay such additional amounts within [***] of the date Upstream delivers to Maruho such accounting firm’s written report so concluding. The fees charged by such accounting firm shall be paid by Upstream; provided, however, if the audit discloses that the aggregate amounts payable by Maruho for such period are more than [***] of the amounts actually paid for such period, then Maruho shall pay the reasonable fees and expenses charged by such accounting firm. Upstream shall treat all financial information subject to review under this Section 4.3 as confidential, and shall cause its accounting firm to retain all such financial information in confidence.

[***]

4.4 Payment Method. All payments by Maruho to Upstream hereunder shall be in United States dollars in immediately available funds and shall be made by wire transfer to such bank account as designated by Upstream shown below to Maruho; provided, however, that Upstream shall have the right to change such bank account or instructions on written notice to Maruho of such change. Any payment which falls due on a date which is not a Business Day may be made on the next succeeding Business Day.

4.5 Taxes.

4.5.1 The Party receiving payments under the Agreement will pay any taxes levied on account of such payment. If any taxes are required to be withheld by the paying Party, then to the extent a deduction is permitted by the applicable Upstream In-License, it will (a) deduct such taxes from the remitting payment, (b) timely pay the taxes to the proper taxing authority, and (c) send proof of payment to the other Party and certify its receipt by the taxing authority within [***] following such payment. It is understood and agreed between the Parties that any amounts payable by a Party to the other Party hereunder are exclusive of any and all applicable sales, use, value-added tax, general sales tax, excise, property, and other taxes, levies, duties or fees in the Territory (collectively, "Taxes")

4.5.2 The Parties agree to cooperate and produce on a timely basis any tax forms or reports, including a valid residential certificate required for Japanese withholding tax exemption or reduction, reasonably requested by the other Party in connection with any payment made by Maruho to Upstream under this Agreement. If Maruho does not receive such application forms and other documents by a day before due date, Maruho may extend payment due [***] after the receipt of such documents.

5. DEVELOPMENT AND COMMERCIALIZATION.

5.1 Development.

5.1.1 Upstream Development Activities. On the terms and conditions of this Agreement, Upstream shall be responsible for and control the development of the Product on a global basis including Japan, and shall consider in good faith the interests of Maruho in so doing. Upstream shall perform a Phase II(a) Clinical Trial for Orphan Drug Designation as part of Upstream's global development strategy and shall aim to obtain the regulatory approval of FDA for the Product in that Orphan Drug Designation within [***] following the commencement of such global development; provided, however, that such obligation shall terminate immediately upon the effectiveness of a registration statement filed by Upstream pursuant to the Securities Act of 1933, as amended, for any equity securities of Upstream or Upstream becoming subject to the reporting requirements of the Securities Exchange Act of 1934. Upstream shall develop the Product for use in Japan as part of Upstream's global development strategy and in accordance with industry practices for development of biological products for use in Japan as part of a global development, and as much as possible on a similar schedule it develops the Product for its initial territory/territories; provided that Upstream's development of the Product for use in Japan shall be made in accordance with Section 6.1 below.

5.1.2 Maruho Phase II(b) and/or III Clinical Development Right. Upstream shall, on a global basis, provide Maruho with (i) top-line data and CSR (clinical study report) from the Phase II(a) Clinical Trials conducted by Upstream and (ii) all data regarding development plan after the above said CSR as soon as practicable after Upstream's receipt of such data. At Maruho's request, Upstream shall conduct, at Maruho's sole cost and expense, specified Phase II(b) and/or III Clinical Trial Activities in Japan, in accordance with Section 5.1.7 below; provided that patient enrollment in Japan shall be expected to be sufficient to obtain regulatory approval in Japan but in any case, not exceed twenty percent (20%) of Upstream's global Phase II(b) and/or III Clinical Trial patient enrollment. Notwithstanding the foregoing, in the course of the specified Phase II(b) and/or III Clinical Trial Activities in Japan, Upstream shall (a) take, in good faith, Maruho's opinions and list for site selection into consideration in the course of its decision making, (b) select Japan specific KOL in consultation

with Maruho, (c) obtain, in advance, the approval of the JDC for such Japan-specific KOL selection, (d) JDC will decide which party, either Upstream or Maruho, will lead the interaction with such Japan specific KOLs, (e) allow Maruho's participation in consultation with such KOLs together with Upstream, (f) have Maruho review the draft protocol, IB (Investigator's Brochure) and CSR necessary for Phase II(b) and/or III Clinical Trial Activities conducted by Upstream, (g) consult with Maruho on Japan-specific conditions, including without limitation market conditions of competing products for the Product, and compliance with regulations in Japan, and (h) subsequently conduct such Phase II(b) and/or Phase III Clinical Trial based on the result of the above said consultation with Maruho. Notwithstanding the foregoing, Japan-Specific Studies are subject to Section 5.1.6 below. Upstream will exercise reasonable efforts to ensure a timely execution of the Phase II(b) and/or III Clinical Trial Activities. Without derogating from Upstream's obligation set out immediately above, if Upstream fails to enable Maruho to submit CTN (clinical trial notification) for a Phase II(b) and/or III Clinical Trial in an indication in Japan within [***] after the first dosing of a patient in the equivalent US or Europe II(b) and/or Phase III Clinical Trial (the first to be initiated) in that indication, Maruho will have the right to continue to develop the Product on its own in that indication in Japan, with clinically reasonable adherence to Upstream's clinical design and protocols in the US and/or Europe with Upstream's reasonable support. JDC shall discuss and decide reasonable timeline in advance of commencement of such development.

5.1.3 Pre-Clinical Studies. Maruho may, at its sole discretion and at its sole expense, carry out non-GLP pre-clinical pharmacology and non-GLP pharmacokinetics/pharmacodynamics studies in Japan, either by itself or through CRO or research institutions, which studies will be coordinated in the JDC. If the JDC reasonably considers that such study may raise adverse regulatory implications on the global development level, the JDC may object to the intended study and will use best efforts to make risk reduction modifications.

5.1.4 Maruho Participants. Maruho shall have the right to send representatives on its behalf in order to participate in scheduled meetings of the Upstream development team which meeting will handle clinical development in Japan.

5.1.5 Additional Indications. Maruho may, at any time, suggest to JDC new indications to develop for Japan for discussion purpose. The JDC shall reasonably consider such additional indications in accordance with the principles set out in Section 6.1 below. [***]. Once the new indication is approved by the JDC, this indication will become an integral part of Upstream's development plan for execution using reasonable development efforts and JDC shall discuss and decide reasonable timeline in advance of commencement of such development. If Upstream fails to initiate clinical trials in the new indication within [***] after the target date for initiation of such clinical trial agreed by the JDC, Upstream shall present to the JDC a detailed explanation for the delay and specify the actions it is taking to expedite development and further discuss with Maruho whether to delegate the right to continue to develop the Product on its own in that indication in Japan. If Upstream fails to submit a CTN of clinical trials in the new indication within [***] after the target date for submission of a CTN of such clinical trial agreed by the JDC, Maruho will have the right to continue to develop the drug on its own in that indication in Japan, in consultation with and with reasonable support of Upstream.

5.1.6 Japan-Specific Studies. Upstream will develop Japan-Specific Studies with reasonable effort, which shall be at least equal to those used by Upstream itself in developing the Product outside Japan, in close coordination with Maruho. Upstream will preferably ask Maruho to assist in the design of Japan-Specific Studies, and for Maruho to participate or lead the execution of Japan-Specific Studies. If Maruho will participate or lead such Japan-Specific Studies, then Upstream shall support Maruho in a timely manner. Maruho may obtain pharmacokinetic data of Japanese through the Japan-specific Studies. Upstream shall conduct Japan-Specific Studies in accordance with requirements made on Maruho by governmental or regulatory authority, authoritative national academic or medical society, or a Japan-focused KOL, regarding a specific indication or label specification.

5.1.7 Reimbursement of Certain Upstream Development Costs. Maruho shall reimburse Upstream for one hundred percent (100%) of Upstream's fully-burdened costs reasonably necessary for any development activities for the Product that are specific to Japan except internal labor costs reasonably necessary for any development activities for the Product that are specific to Japan, where Maruho shall reimburse for [***] of such internal labor costs, provided that the estimation of such costs, including amendments of such estimation, was done in good faith and agreed by the JDC. Upstream shall invoice Maruho for such amounts on a [***] basis, and Maruho shall pay to Upstream the invoiced amount within [***] after the date of such invoice. For clarity, Upstream shall use commercially reasonable efforts to operate within such estimations.

5.2 Regulatory.

5.2.1 Maruho Regulatory Activities. Maruho shall be responsible for and control the preparation, filing, prosecution, obtaining and maintaining all regulatory approvals for the Product in Japan, and shall own all regulatory applications, filings, approvals and licenses thereof and shall be the Marketing Authorization Holder in Japan. Maruho shall work in full coordination and adherence to Upstream's global regulatory strategy, and in doing so both parties will comply with the PMDA's timelines.

5.2.2 Communication with PMDA. Maruho shall have the sole responsibility in close consultation with Upstream and consistent with Upstream's global development strategy, to communicate with the PMDA regarding the Product in Japan. With respect to any filing, material communication or other submission with the PMDA regarding the Product in Japan, (a) Maruho shall provide Upstream with an advance copy of the reasonably complete draft thereof; (b) Upstream shall have a reasonable opportunity to review, comment and consult on each such draft, taking into consideration any PMDA response deadline; and (c) Maruho shall consider the reasonable comments of Upstream in good faith. Maruho shall provide Upstream with the final form of each such written communication within [***] after submission to the PMDA. With respect to any meetings, telephone conferences, video conferences or other non-written communication with the PMDA regarding the Product in Japan, Maruho shall provide Upstream with reasonable advance written notice thereof and use commercially reasonable efforts to allow Upstream the opportunity to have representatives actively participate therein.

5.2.3 Reimbursement of Upstream Regulatory Costs. Maruho shall reimburse Upstream for one hundred percent (100%) of Upstream's fully-burdened reasonable costs of assisting Maruho in any regulatory activities for the Product that are specific to Japan, except internal labor costs reasonably necessary for assisting Maruho in any regulatory activities for the Product that are specific to Japan, where Maruho shall reimburse for [***] of such costs, provided that the estimation of such costs, including amendments of such estimation, was done in good faith and agreed by the JDC. Upstream shall invoice Maruho for such amounts on a quarterly basis, and Maruho shall pay to Upstream the invoiced amount within [***] after the date of such invoice. For clarity, Upstream shall use commercially reasonable efforts to operate within such estimations.

5.3 Manufacturing and Supply.

5.3.1 Development Supply. Upstream shall be responsible, at the sole expense of Maruho, for the procurement or supply of the Bulk Licensed Compound, the Product and the related compounds including, without limitation, non-GLP pre-clinical and clinical development meeting applicable regulations and the specifications (as amended from time to time, the "**Specifications**"). Upstream will notify Maruho of any changes to the Specifications as soon as reasonably practicable. If regulatory authority, including, without limitation, PMDA requires the amendment of the Specifications for the development for Japan, Upstream shall agree Maruho in such amendment and supply the Bulk Licensed Compound, the Product and the foresaid related compounds subject to such amended Specification. Upstream shall invoice Maruho for one hundred percent (100%) of the fully burdened cost of such supply on delivery, and Maruho shall pay to Upstream the invoiced amount within [***] after the date of such invoice.

5.3.2 Commercial Supply. Maruho shall have made the Product for Maruho's sale and use in Japan, by a CMO that is either a CMO used by Upstream or a CMO that went through the technology transfer process set out below. Upstream shall either (i) make available to Maruho the right to purchase Bulk Licensed Compound and/or Product from one or more CMOs with whom Upstream has contracted to manufacture and supply Product, or (ii) make available to Maruho the right to purchase Bulk Licensed Compound and/or Product directly from Upstream. In either case of the above, Upstream shall enter into a quality agreement setting forth such quality control obligation with Maruho together with, if applicable, CMOs. Maruho and any such CMO, or Upstream in case of manufacturing by itself, shall negotiate and enter one or more supply agreements for the manufacture and supply of the Product directly from such CMO or Upstream to Maruho for Maruho's sale and use in Japan. Upstream shall make commercially reasonable efforts to enable Maruho to procure Bulk Licensed Compound and/or Product from such CMO at the same price level as Upstream procure Bulk Licensed Compound and/or Product. In the event that any such Bulk Licensed Compound or Product does not meet the Japanese industry standard and quality standards required by applicable law or regulation in Japan, Maruho may choose a new CMO in consultation with Upstream, subject any needed third party consents in accordance with the Lonza Agreement, if applicable. Maruho will be responsible for the technology transfer, at Maruho's sole expense, to the new third party CMO with the assistance of Upstream, where Upstream shall transfer, at Maruho's sole expense, to the new CMO, all necessary know-how, any data and technology relating to the manufacture of the Compound and the Product, including, but not limited to, Master Cell Bank, information on manufacture, analysis and quality assurance, and pharmaceutical preparations and drug substances necessary to confirm the consistency of manufacturing quality before and after technology transfer pursuant to this Section 5.3.2.

5.3.3 The provisions of this section also apply in case Maruho gains the right to independently develop the Product in Japan as set out in Section 5.1.2 and Section 5.1.5.

5.4 Commercialization.

5.4.1 Maruho Commercialization Activities. On the terms and conditions of this Agreement, as between the parties, Maruho shall be solely responsible for and shall control, at its sole expense, the promotion, marketing, sale and other commercialization of the Product in Japan.

5.4.2 Trademarks. Maruho, its sublicensees and their respective Affiliates may use the Licensed Marks without any additional consideration in the packaging, labeling, promotion, marketing and sale of the Product in Japan. Upstream shall notify Maruho of the filing of any trademark application for the Product as soon as reasonably practicable.

5.5 Pharmacovigilance. Within [***] of the Effective Date, but in any event prior to commencement by Maruho, its Affiliates and sublicensees of any clinical trials with the Licensed Compound or Product in Japan, the parties will in good faith negotiate and finalize a separate safety data exchange agreement (the "Pharmacovigilance Agreement"), the terms of which shall set forth the obligations, procedures and timelines for exchanging information (such as the occurrence of adverse events and serious adverse events) observed in connection with the Product in order to enable each party to comply with its safety reporting obligations to regulatory authorities. Prior to the execution of the Pharmacovigilance Agreement, each party shall promptly notify the other party of any information observed in connection with the Product necessary to enable such party to comply with its safety reporting obligations to regulatory authorities. Maruho shall maintain the safety database for the Licensed Compound and Product in Japan following regulatory approval in Japan, which shall include adverse events and other information relating to the safety of the Licensed Compound and Product. Upstream shall establish and maintain the global safety database for the Licensed Compound and Product at its costs and upon its responsibility, which shall include adverse events and other information relating to the safety of the Licensed Compound and Product.

5.6 Access to Data.

5.6.1 Astellas Data. [***] following the Effective Date, Upstream shall deliver or provide access to Maruho (including rights of reference) all data comprising the Astellas Assets transferred to Upstream under the Astellas Asset Purchase Agreement that is reasonably necessary or useful for Maruho to exercise its rights and preform its obligations in Japan under this Agreement, and is not already in Maruho's possession, for the sole purpose of exercising its rights and performing its obligations in Japan under this Agreement.

5.6.2 Upstream Product Data. From time to time and pursuant to such process and schedule as shall be agreed to by the JDC, Upstream shall deliver or provide access to Maruho (including rights of reference) the Upstream Product Data, for the sole purpose of exercising its rights and performing its obligations in Japan under this Agreement. Without limiting the foregoing, Upstream shall make available to Maruho any other data reasonably requested by the Maruho JDC Representatives.

5.6.3 Maruho Product Data. From time to time and pursuant to such process and schedule as shall be agreed to by the JDC, Maruho shall deliver or provide access to Upstream (including rights of reference) the Maruho Product Data for the sole purpose of developing or commercializing the Product other than (during the term of this Agreement) in Japan. Without limiting the foregoing, Maruho shall make available to Upstream any other data reasonably requested by the Upstream JDC Representatives.

5.7 Cooperation. Each party and its respective Affiliates shall reasonably cooperate with the other party in the performance of its activities under this Section 5 that are specific or applicable to Japan, including in-person coordination of clinical development and regulatory filing activities at Upstream's offices from time to time and pursuant to such process and schedule as the parties mutually agree.

5.8 Compliance with Law. Each party and its respective Affiliates shall perform or cause to be performed its activities pursuant to this Agreement in compliance (and shall ensure compliance by any of its sublicensees and subcontractors) with all applicable laws /regulations or instruction of the regulatory authorities.

6. JOINT DEVELOPMENT COMMITTEE.

6.1 Responsibility and Authority. The purpose of the Joint Development Committee shall be to facilitate the exchange of information and to make decisions regarding each party's activities under this Agreement applicable to Japan concerning development, regulatory activities and manufacture, and to coordinate the party's respective activities applicable to Japan. The JDC shall not deal with marketing and sales in Japan which is to be exercised by Maruho at Maruho's sole discretion, provided, however, that JDC shall be held to facilitate the exchange of information regarding each party's activities for commercialization. The JDC shall discuss and resolve issues based on, and taking into account, the following principals:

6.1.1 The parties wish to collaborate, long-term with transparency and assist each other to maximize the exploitation of the Products world-wide and in Japan, which collaboration shall include regular updates by Upstream of progress in the global development of the Product, and in its development activities with regards to Japan.

6.1.2 The JDC will exercise reasonable clinical development industry standards for its decision making and progress in Japan, which will not be unreasonably or untimely withheld unless Japanese development is reasonably expected to cause a material adverse impact to global development. For the avoidance of doubt, market size considerations (either in Japan or globally) will not be a reason for withholding development by Maruho in Japan.

6.1.3 Upstream respects the fact that Maruho has decades of experience in development of pharmaceutical products in Japan which the JDC may rely on to maximize the value of the Products.

6.2 Composition. Within [***] after the Effective Date, each party shall appoint no more than [***] named representatives of Upstream and no more than [***] named representatives of Maruho to serve on the Joint Development Committee (the “JDC Representatives”). Each party may substitute its JDC Representative, in its sole discretion, effective upon written notice to the other party of such change. The chairperson of each meeting shall rotate between the JDC Representatives of the parties and shall be responsible to record the minutes and decisions, sign them and receive the signature of the other party’s representative. The unanimous approval of the JDC Representatives present at the relevant JDC meeting shall be required for the approval, determination or other action of the JDC. In addition to the above members, each Party may bring up to two non-voting experts to JDC meetings whenever deemed relevant for the purpose of adding competence in respect of matters at discussion, provided reasonable advance notice of such participation is given to the other Party.

6.3 Meetings. The JDC Representatives shall, after appointment of its initial members, meet a least once every calendar quarter at times mutually agreed upon by the parties (“JDC Meeting”). Nonetheless, the parties may mutually agree not to hold a JDC Meeting if there is no topic, issue or matter to be included on an agenda for such meeting and to decrease the minimum frequency of the JDC meeting. The location of regularly scheduled in-person JDC Meetings shall alternate between the offices of the parties, unless otherwise agreed. Notwithstanding the foregoing, the JDC Meetings may be held via web conference. Each party shall use reasonable efforts to cause its JDC Representatives to attend the JDC Meeting on a regular basis and try to avoid frequent replacement of its representatives in order to achieve a good long-term collaboration. If a JDC Representative is unable to attend a JDC Meeting, the respective party may designate an alternate to attend such meeting in place of the absent JDC Representative. Each party shall bear all the expenses of its JDC Representatives on the JDC Meeting. The presence of one member from each party shall be deemed a quorum for the JDC Meeting.

6.4 Minutes. The minutes of each JDC Meeting shall be distributed to the members within [***] after the completion of the relevant meeting and shall provide a description in reasonable detail of the discussions held at the meeting and the decisions reached. Minutes of each JDC Meeting shall be approved or disapproved, and revised as necessary, within [***] after the applicable JDC Meeting. Once finalized, minutes and decisions shall be signed by one representative of each Party and such decisions shall bind the Parties.

6.5 Deadlocks. If the JDC Representatives, following an intense consultation period of [***], cannot reach agreement on an issue that was raised by a party and was flagged as a material issue to be decided upon, (a “Deadlock”), the representatives of each party shall refer such issue to the chief executive officers of each party, or its direct report officer that is at least a senior vice president (the “Executives”), who promptly shall meet and resolve the issue by mutual agreement in such manner as they deem appropriate. For the purpose of the Executives meeting, JDC shall appoint an independent expert (having proven expertise on development and regulatory activities of pharmaceuticals worldwide (including in Japan) (“Expert”) and such Expert shall present the issues to be resolved and shall give its expert opinion on how to resolve the issue taking into account the basic principal set out in Section 6.1 above to the Executives. The Executive shall sincerely take such Expert’s opinion into consideration to resolve the issue. In the case the Executives fail to reach a mutual agreement, either party shall have the right to seek an arbitration resolution pursuant to Section 13.2.

7. INVENTION AND PATENT RIGHTS.

7.1 Notification of New Invention. Each party shall notify to the other party that effect in writing as promptly as practically possible, if a party makes a new patentable invention pertaining to the Asset, and shall discuss the ownership of intellectual property rights regarding such invention in good faith prior to the filing of any patent application for such intellectual property rights.

7.2 Prosecution and Maintenance. Upstream shall have the sole right, at its sole expense, to prepare, file, prosecute, maintain and defend Licensed Patent Rights in Japan. Upstream shall consider in good faith the interests of Maruho in so doing. With respect to each patent application and patent within the Licensed Patent Rights in Japan, Upstream shall (a) provide Maruho with any patent application filed by Upstream prior to filing; (b) provide Maruho with any patent application filed by Upstream after such filing; and (c) notify Maruho of any interference, opposition, reexamination request, nullity proceeding, appeal or other interparty action. Upstream may not abandon any Licensed Patent Rights in Japan without Maruho's prior written consent, which shall not be unreasonably withheld, delayed or conditioned. Maruho shall reimburse Upstream for one hundred percent (100%) of Upstream's fully-burdened costs of conducting or having conducted such activities. Upstream shall invoice Maruho for such amounts on a [***] basis, and Maruho shall pay to Upstream the invoiced amount within [***] after the date of such invoice.

7.3 Enforcement of Licensed Patent Rights.

7.3.1 Notice. Each party will promptly notify the other party in writing of: (1) any actual or threatened infringement, misappropriation, or other violation, by a third party of any Licensed Patent Rights in Japan of which it becomes aware (each, an "Infringement"); and (2) any challenge to the validity, scope or enforceability of any Licensed Patent Rights in Japan by a third party, or any allegation by a third party that any intellectual property owned by it is infringed, misappropriated, or otherwise violated by the use of any Products of which it becomes aware.

7.3.2 Maruho's Responsibility. Maruho shall have obligation, at its sole expense, to enforce the Licensed Patent Rights against an Infringement in Japan, except any procedures which require to be filed by the patentee under Japanese law or by the court, including, without limitation, injunctions and invalidation request. Notwithstanding the foregoing, Maruho shall consider in good faith the interests of Upstream in so doing. Upstream shall assist Maruho (upon Maruho's request and at Maruho's sole expense) to the extent commercially reasonable in connection therewith.

7.3.3 Maruho's Prosecution. Maruho shall prosecute any actions to enforce the Licensed Patent Rights against an Infringement in Japan. Maruho may take any lawful action that it determines is reasonably necessary to pursue such prosecution. Maruho may ask Upstream to join as a party to any such proceeding and Upstream, if so elects, shall cooperate in all respects with any such proceeding to the extent commercially reasonable. Maruho shall be solely responsible for all costs and expenses of any such proceeding and shall have the right to control the conduct thereof. Maruho shall retain all proceeds from any such proceeding after reimbursement of Upstream's and Maruho's costs and expenses out of the proceeds thereof.

7.3.4 Upstream's Prosecution. In the event it is mutually agreed between the parties herein or the Japanese law or the court requires Upstream to file a proceeding to enforce the Licensed Patent Rights against an Infringement in Japan, Upstream shall take any lawful action that it determines is reasonably necessary to pursue such prosecution with Maruho's assistance. Upstream shall have the right to make Maruho join as a party to any such proceeding and Maruho shall cooperate in all respects with any such proceeding. Maruho shall be solely responsible for all costs and expenses of any such proceeding and shall have the right to control the conduct thereof. Maruho shall retain all proceeds from any such proceeding after reimbursement of Upstream's and Maruho's costs and expenses out of the proceeds thereof.

7.4 Enforcement of Supported Patent Rights

7.4.1 Notice. Each party will promptly notify the other party in writing of: (1) any actual or threatened infringement, misappropriation, or other violation, by a third party of any Supported Patent Rights outside Japan of which it becomes aware (each, an "Infringement II"); and (2) any challenge to the validity, scope or enforceability of any Supported Patent Rights outside Japan by a third party, or any allegation by a third party that any intellectual property owned by it is infringed, misappropriated, or otherwise violated by the use of any Products of which it becomes aware.

7.4.2 Upstream's Responsibility. Upstream shall have the right, at its sole expense, to enforce the Supported Patent Rights against an Infringement II outside Japan, except any procedures which require to be filed by the patentee under applicable law or by the court. Notwithstanding the foregoing, Upstream shall consider in good faith the interests of Maruho in so doing. Maruho shall assist Upstream (upon Upstream's request and at Upstream's sole expense) to the extent commercially reasonable in connection therewith.

7.4.3 Upstream's Prosecution. Upstream shall prosecute any actions to enforce the Licensed Patent Rights against an Infringement II outside Japan. Upstream may take any lawful action that it determines is reasonably necessary to pursue such prosecution. Upstream may ask Maruho to join as a party to any such proceeding and Maruho, if so elects, shall cooperate in all respects with any such proceeding to the extent commercially reasonable. Upstream shall be solely responsible for all costs and expenses of any such proceeding and shall have the right to control the conduct thereof. Upstream shall retain all proceeds from any such proceeding after reimbursement of Upstream's and Maruho's costs and expenses out of the proceeds thereof.

7.4.4 Maruho's Prosecution. In the event it is mutually agreed between the parties herein or the applicable law or the court requires Maruho to file a proceeding to enforce the Licensed Patent Rights against an Infringement II outside Japan, Maruho shall take any lawful action that it determines is reasonably necessary to pursue such prosecution with Upstream's assistance. Maruho shall have the right to make Upstream join as a party to any such proceeding and Upstream shall cooperate in all respects with any such proceeding. Upstream shall be solely responsible for all costs and expenses of any such proceeding and shall have the right to control the conduct thereof. Upstream shall retain all proceeds from any such proceeding after reimbursement of Upstream's and Maruho's costs and expenses out of the proceeds thereof.

8. RIGHT OF FIRST NEGOTIATION.

8.1 For a period commencing on the Effective Date and terminating upon the earlier of (a) the [***] anniversary of an initial closing set forth in the Stock Purchase Agreement of the same date hereof between Maruho, Upstream and other investors on share purchase of Upstream; or (b) the occurrence of a merger and acquisition of Upstream by a third party, neither Upstream nor its Affiliates shall enter into any agreement with a third party (or engage in negotiations thereof), directly or indirectly (whether by contract, at law or otherwise), to sell, assign or otherwise transfer any or all of Upstream's asset relating to the Product in the event of an actual liquidation of Upstream, except deemed liquidation events such as a merger and acquisition by third parties, without first giving to Maruho express written notice thereof, and Upstream hereby grants to Maruho the right to first negotiate to purchase all such asset of Upstream in such event. If, within [***] after receipt of such written notice from Upstream, Maruho gives written notice to Maruho of its exercise of such right of first negotiation, then the parties shall negotiate in good faith, for a period not to exceed [***], and attempt to reach mutual agreement regarding terms and conditions of a mutually acceptable agreement to sell, assign or otherwise transfer such asset relating to the Product. If Maruho fails to timely give Upstream written notice of its exercise of such right of first negotiation, or if the parties fail to timely reach mutual agreement and enter into a written agreement to sell, assign or otherwise transfer such rights under this Agreement prior to the expiration of such [***] period, thereafter Upstream shall have the right to reach mutual agreement and enter into an agreement with any third party to sell, assign or otherwise transfer such rights under this Agreement, provided that the terms and conditions of such agreement are not more favorable to such third party than the terms and conditions last offered by Maruho to Upstream (taken as a whole). Any purported sale, assignment or other transfer in violation of this Section 8 shall be void.

8.2 For a period commencing on the Effective Date and terminating upon the earlier of (a) the [***] anniversary of the Effective Date; or (b) the occurrence of Change of Control, neither Maruho nor its Affiliates shall enter into any agreement with a third party (or engage in negotiations thereof), directly or indirectly (whether by contract, at law or otherwise), to sell, assign, sublicense or otherwise transfer any or all of Maruho's rights under this Agreement without first giving to Upstream express written notice thereof, and Maruho hereby grants to Upstream the first right to negotiate with Maruho to enter into an agreement to acquire such rights. If, within [***] after receipt of such written notice from Maruho, Upstream gives written notice to Maruho of its exercise of such right of first negotiation, then the parties shall negotiate in good faith, for a period not to exceed [***], and attempt to reach mutual agreement regarding terms and conditions of a mutually acceptable agreement to sell, assign, sublicense or

otherwise transfer such rights under this Agreement. If Upstream fails to timely give Maruho written notice of its exercise of such right of first negotiation, or if the parties fail to timely reach mutual agreement and enter into a written agreement to sell, assign, sublicense or otherwise transfer such rights under this Agreement prior to the expiration of such [***] period, thereafter Maruho shall have the right to reach mutual agreement and enter into an agreement with any third party to sell, assign, sublicense or otherwise transfer such rights under this Agreement, provided that the terms and conditions of such agreement are not more favorable to such third party than the terms and conditions last offered by Upstream to Maruho (taken as a whole). Any purported sale, assignment, sublicense or other transfer in violation of this Section 8 shall be void.

9. CONFIDENTIALITY.

9.1 Confidentiality. During the term of this Agreement and for a period of five (5) years following termination hereof, each party shall maintain in confidence the Confidential Information of the other party, shall not use or grant the use of the Confidential Information of the other party except as expressly permitted hereby, and shall not disclose the Confidential Information of the other party except on a need-to-know basis to such party's directors, officers, employees, Affiliates, sublicensees, contractors and consultants, to the extent such disclosure is reasonably necessary in connection with such party's activities as expressly authorized by this Agreement. To the extent that disclosure to any person is authorized by this Agreement, prior to disclosure, a party shall obtain written agreement of such person to hold in confidence and not disclose, use or grant the use of the Confidential Information of the other party except as expressly permitted under this Agreement. Each party shall notify the other party promptly upon discovery of any unauthorized use or disclosure of the other party's Confidential Information.

9.2 Terms of Agreement. Neither party shall disclose any terms or conditions of this Agreement to any third party without the prior consent of the other party.

9.3 Permitted Disclosures. Notwithstanding the non-disclosure and non-use obligations of this Section 9, the party receiving Confidential Information shall have the right to disclose such Confidential Information or the terms of this Agreement (a) to the extent approved in writing in advance by the party disclosing such Confidential Information; (b) to investment bankers, actual and potential investors, potential sublicensees and financing sources, and actual and potential acquirers, collaboration partners and licensees, each of whom prior to disclosure must be bound by obligations of confidentiality and non-use not less restrictive than those set forth in this Agreement; or (c) to the extent that a party is required to disclose Confidential Information by applicable law, regulation or order of a governmental agency or a court of competent jurisdiction, including the rules of any securities exchange or automated quotation system applicable to such party (in each case as determined by such party's legal counsel); provided, however, that such party shall provide advanced written notice thereof to the other party, consult with the other party with respect to such disclosure and provide the other party sufficient opportunity to object to any such disclosure or to request confidential treatment thereof (if applicable).

10. INDEMNIFICATION AND INSURANCE.

10.1 By Maruho. Maruho shall indemnify and hold harmless Upstream, and its directors, officers, employees and agents, from and against all losses, liabilities, damages and expenses, including reasonable attorneys' fees and costs (collectively, "Liabilities"), from any claims, demands, actions or other proceedings by any third party to the extent resulting from (a) the breach of any representation, warranty or covenant by Maruho under this Agreement; (b) the use of the Licensed IP Rights by Maruho, its sublicensees or their respective Affiliates; (c) the development, manufacture, use, sale, handling or storage of Products in Japan by or on behalf of Maruho, its sublicensees or their respective Affiliates, customers or end-users; or (d) the use of the Confidential Information of Upstream by Maruho, its sublicensees or their respective Affiliates.

10.2 By Upstream. Upstream shall indemnify and hold harmless Maruho, and its directors, officers, employees and agents, from and against all Liabilities from any claims, demands, actions or other proceedings by any third party to the extent resulting from (a) the breach of any representation, warranty or covenant by Upstream under this Agreement; (b) the development, manufacture, use, sale, handling or storage of Products outside Japan by or on behalf of Upstream, its other licensees or their respective Affiliates, customers or end-users; (c) the defective Bulk Licensed Compound and/or Product manufactured or supplied by or on behalf of Upstream; (d) the use of the Supported IP Rights by Upstream, its other licensees or their respective Affiliates; or (e) the use of the Confidential Information of Maruho by Upstream, its other licensees or their respective Affiliates.

10.3 Procedure. If a party (the "Indemnitee") intends to claim indemnification under this Section 10, it shall promptly notify the other party (the "Indemnitor") in writing of any claim, demand, action or other proceeding for which the Indemnitee intends to claim such indemnification, and the Indemnitor shall have the right to participate in, and, to the extent the Indemnitor so desires, to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an Indemnitee shall have the right to retain its own counsel, with the fees and expenses to be paid by the Indemnitor, if representation of such Indemnitee by the counsel retained by the Indemnitor would be inappropriate due to actual or potential differing interests between the Indemnitee and any other party represented by such counsel in such proceeding. The obligations of this Section 10 shall not apply to amounts paid in settlement of any claim, demand, action or other proceeding if such settlement is effected without the consent of the Indemnitor, which consent shall not be unreasonably withheld or delayed. The failure to deliver written notice to the Indemnitor within a reasonable time after the commencement of any such action, if prejudicial to its ability to defend such action, shall relieve the Indemnitor of any obligation to the Indemnitee under this Section 10, but the omission so to deliver written notice to the Indemnitor shall not relieve it of any obligation that it may have to any party claiming indemnification otherwise than under this Section 10. The Indemnitee, its employees and agents, shall reasonably cooperate with the Indemnitor and its legal representatives in the investigation of any claim, demand, action or other proceeding covered by this Section 10.

10.4 Insurance. Each party shall maintain insurance, including product liability insurance, with respect to its activities under this Agreement regarding the Licensed Compound and Products in such amount as such party customarily maintains with respect to similar activities for its other products, but not less than such amount as is reasonable and customary in the industry taking into account the activities to be conducted by such party under this Agreement. Each party shall maintain such insurance for so long as it continues its activities under this Agreement, and for [***] thereafter.

11. PUBLIC ANNOUNCEMENTS.

Except as required by the Applicable Laws (including disclosure requirements of the SEC (US Securities and Exchange Commission) or any stock exchange or automated quotation system on which securities issued by a party are traded), neither Party shall make any other public announcement concerning this Agreement or the subject matter hereof without the prior written consent of the other, which shall not be unreasonably withheld or delayed. Furthermore, to the extent practicable under the circumstances, the Party making public announcement shall furnish to the other Party the draft text to be announced prior to [***] of such announcement and the Parties shall subsequently contemplate to discuss and review the draft [***] prior to such announcement, provided, however, that the Party making public announcement without the other Party's name shall make such public announcement by reporting to the other Party that effect [***] prior to such announcement. Once the parties have agreed upon the substance of information that can be used for any such public announcement, each party thereafter may disclose such information, as modified by mutual written agreement of the parties, without the consent of the other party.

12. TERMINATION.

12.1 Waiver of Termination Rights. The license granted by Upstream to Maruho under this Agreement is irrevocable and perpetual and therefore both parties waive their right of termination of this Agreement for any reason, except as set out below. An uncured material breach may be remedied by other available remedies including monetary remedies, injunction or other writs and legal remedies.

12.2 Termination by Maruho. Maruho may terminate this Agreement at any time upon sixty (60) days prior written notice to Upstream.

12.3 Effects of Termination. Termination of this Agreement shall be without prejudice to any rights which shall have accrued to the benefit of a party prior to such termination. Without limiting the foregoing, Sections 2.3, 3.2, 5.6.3, 9, 10, 12.3 and 13 shall survive any termination of this Agreement. Except as otherwise expressly set forth in this Agreement, promptly upon the termination of this Agreement, each party shall return to the other party all tangible items regarding the Confidential Information of the other party and all copies thereof; provided, however, that each party shall have the right to retain one (1) copy for its legal files for the sole purpose of determining its obligations hereunder.

13. MISCELLANEOUS.

13.1 Governing Law. This Agreement shall be governed by, interpreted and construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law principles thereof, and shall not be governed by the United Nations Convention on Contracts for the International Sale of Goods.

13.2 Dispute Resolution. Any disputes that are not otherwise resolved by the Parties shall be submitted to binding arbitration with the International Centre for Dispute Resolution (“ICDR”) in the State of Delaware, USA in accordance with the then-prevailing commercial arbitration rules of the ICDR.

13.2.1 The language of the arbitration shall be English. There shall be [***] arbitrators, one selected by the initiating Party in the request for arbitration, the second selected by the other Party within [***] of the request for arbitration, and the third (who shall act as chairperson of the arbitration tribunal) selected by the [***] Party-appointed arbitrators within [***] of the selection of the second arbitrator. In the event that the respondent fails to select an arbitrator, or if the [***] Party-appointed arbitrators are unable or fail to agree upon the third arbitrator, the ICDR shall designate the remaining arbitrator(s) required to comprise the tribunal.

13.2.2 Each arbitrator chosen shall speak, read, and write English fluently and shall be either (i) a practicing lawyer who has specialized in business litigation with at least [***] of experience, or (ii) a retired judge of a court of general jurisdiction.

13.2.3 The arbitrators shall issue an award within [***] of the submission of the request for arbitration. This time limit may be extended by agreement of the Parties or by the tribunal if necessary. It is expressly understood and agreed by the Parties that the rulings and award of the tribunal shall be conclusive on the Parties, their successors and permitted assigns. Judgment on the award rendered by the tribunal may be entered in any court having jurisdiction thereof.

13.2.4 The cost of the arbitration, including the fees and expenses of the arbitrator, will be shared equally by the Parties. The prevailing Party shall be entitled to recover from the losing Party the prevailing Party’s attorneys’ fees and costs. The arbitrator shall have the right to apportion liability between the Parties, but will not have the authority to award any damages or remedies not available under the express terms of this Agreement.

13.3 Waiver. No waiver by a party hereto of any breach or default of any of the covenants or agreements herein set forth shall be deemed a waiver as to any subsequent and/or similar breach or default.

13.4 Assignment. Neither this Agreement nor any right or obligation hereunder may be assigned or delegated, in whole or part, by either party without the prior express written consent of the other; provided, however, that either party may, without the written consent of the other, assign this Agreement and its rights and delegate its obligations hereunder in connection with the transfer or sale of all or substantially all of its business, or in the event of its merger, consolidation, change in control or similar transaction. Any permitted assignee shall assume all obligations of its assignor under this Agreement. Any purported assignment in violation of this Section 13.4 shall be void.

13.5 Independent Contractors. The relationship of the parties hereto is that of independent contractors. The parties hereto are not deemed to be agents, partners or joint venturers of the others for any purpose as a result of this Agreement or the transactions contemplated thereby.

13.6 Further Actions. Each party shall execute, acknowledge and deliver such further documents and instruments and to perform all such other acts as may be necessary or appropriate in order to carry out the purposes and intent of this Agreement.

13.7 Notices. All requests and notices required or permitted to be given to the parties hereto shall be given in writing, shall expressly reference the section(s) of this Agreement to which they pertain, and shall be delivered to the other party, effective on receipt, at the appropriate address as set forth below or to such other addresses as may be designated in writing by the parties from time to time during the term of this Agreement.

If to Upstream: Upstream Bio, Inc.
care of: Maruho Hatsujyo Innovations, 175 Washington
Street, Norwell, MA 02061, USA
Attn: Chief Executive Officer

With a copy to: [***]

If to Maruho: Maruho Co., Ltd.
1-5-22, Nakatsu, Kita-ku, Osaka, 531-0071, Japan
Attn: [***]

With a copy to: [***]

13.8 Force Majeure. Nonperformance of a party (other than for the payment of money) shall be excused to the extent that performance is rendered impossible by strike, fire, earthquake, flood, governmental acts or orders or restrictions, failure of suppliers, or any other reason where failure to perform is beyond the reasonable control and not caused by the negligence, intentional conduct or misconduct of the nonperforming party; provided, however, that the nonperforming party shall (a) notify the other party in writing of the reason for such nonperformance, and (b) use commercially reasonable efforts to resume performance as soon as reasonably practicable. If performance is unable to be resumed within [***] after the initial date of nonperformance, the other party shall have the right to terminate this Agreement immediately upon written notice to the nonperforming party.

13.9 No Consequential Damages. IN NO EVENT SHALL A PARTY BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THIS AGREEMENT OR THE EXERCISE OF ITS RIGHTS HEREUNDER, INCLUDING WITHOUT LIMITATION LOST PROFITS ARISING FROM OR RELATING TO ANY BREACH OF THIS AGREEMENT, REGARDLESS OF ANY NOTICE OF SUCH DAMAGES. NOTHING IN THIS SECTION 13.9 IS INTENDED TO LIMIT OR RESTRICT THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF EITHER PARTY UNDER SECTION 10 OR THE LIABILITY OF EITHER PARTY FOR FRAUD, WILLFUL MISCONDUCT.

13.10 Upstream In-Licenses. Notwithstanding anything to the contrary in this Agreement, the grant of rights by Upstream under this Agreement shall be subject to and limited in all respects by the terms of the applicable Upstream In-License(s) pursuant to which Upstream acquired Licensed IP Rights, and all rights or sublicenses granted under this Agreement shall be limited to the extent that Upstream may grant such rights and sublicenses under such Upstream In-Licenses. Upstream shall provide Maruho with a copy of each such Upstream In-License sufficient to enable Maruho to determine its obligations thereunder.

13.11 Complete Agreement. This Agreement constitutes the entire agreement between the parties regarding the subject matter hereof, and all prior representations, understandings and agreements regarding the subject matter hereof, either written or oral, expressed or implied, including the term sheet exchanged by the parties relating to the subject of this Agreement, are superseded and shall be of no effect.

13.12 Counterparts. This Agreement may be executed in counterparts, each of which shall be deemed to be an original and together shall be deemed to be one and the same agreement. Execution of this Agreement may be accomplished via facsimile or via email exchange of signed PDF execution copies.

13.13 Headings. The captions to the several sections hereof are not a part of this Agreement, but are included merely for convenience of reference only and shall not affect its meaning or interpretation.

IN WITNESS WHEREOF, the parties hereto have each caused this Agreement to be executed by their duly-authorized representatives as of the Effective Date.

UPSTREAM BIO. INC.

By: /s/ Eran Perry
Name: Eran Perry
Title: President

MARUHO CO., LTD.

By: /s/ Atsushi Sugita
Name: Atsushi Sugita
Title: President & CEO

[Signature Page to License Agreement]

EXHIBIT A

LICENSED COMPOUND

EXHIBIT B

INITIAL LICENSED PATENT RIGHTS

FIRST AMENDMENT TO LICENSE AGREEMENT

THIS FIRST AMENDMENT TO LICENSE AGREEMENT (this “*Amendment*”), is effective as of the date signed by the last Party to sign below (the “*Amendment Effective Date*”), and is made by and between Upstream Bio, Inc., a Delaware corporation (the “*Company*”), and Maruho Co., Ltd., a Japanese corporation (“*Maruho*”). The Company and Maruho may each be referred to herein as a “*Party*” or collectively as the “*Parties*”.

WHEREAS, the Parties entered into that certain License Agreement dated as of October 14, 2021 (as amended and/or restated from time to time, the “*License Agreement*”); and

WHEREAS, the Parties desire to amend the Agreement as hereinafter set forth.

NOW, THEREFORE in consideration of the foregoing and the mutual agreements set forth below and other good and valuable consideration, the Parties agree as follows:

14. **Definitions.** Capitalized terms used and not otherwise defined herein shall have the meanings given to such terms in the License Agreement.

15. **Amendment.** Subsection 5.1.1 of the License Agreement shall be deleted and replaced in its entirety with the following:

“5.1.1 **Upstream Development Activities.** On the terms and conditions of this Agreement, Upstream shall be responsible for and control the development of the Product on a global basis including Japan, and shall consider in good faith the interests of Maruho in so doing. Upstream shall make commercially reasonable efforts to perform clinical development as part of Upstream’s global development strategy and shall aim to obtain the regulatory approval for the Products from FDA as quickly as possible in accordance with such strategy. For reference, the current Upstream global development strategy and its estimated schedule are attached in Exhibit C. Upstream shall develop the Product for use in Japan as part of Upstream’s global development strategy and in accordance with industry practices for development of biological products for use in Japan as part of a global development, and as much as possible on a similar schedule it develops the Product for its initial territory/territories; provided that Upstream’s development of the Product for use in Japan shall be made in accordance with Section 6.1 below.”

16. **Effectiveness.** Except to the extent waived or amended by this Amendment, the terms and provisions of the License Agreement shall remain in full force and effect.

17. **Governing Law.** This Amendment shall be governed by, enforced, and shall be construed in accordance with the laws of the State of Delaware, without regard to the conflicts of law provisions thereof, and shall not be governed by the United Nations Convention on Contracts for the International Sale of Goods.

18. Entire Agreement. This Amendment, together with the Agreement, contains the entire agreement of the parties and supersedes any prior or contemporaneous written or oral agreements between them concerning the subject matter of this Amendment.

19. Counterparts. This Amendment may be executed in counterparts with the same effect as if both Parties had signed the same document. All such counterparts shall be deemed an original, shall be construed together and shall constitute one and the same instrument. Signatures to this Amendment transmitted by email in “portable document format” (“*.pdf*”), or by any other electronic means intended to preserve the original graphic and pictorial appearance of this Amendment shall have the same effect as physical delivery of the paper document bearing original signature.

[Signature Page Follows]

IN WITNESS WHEREOF, the Parties have caused this Amendment to be executed by their respective duly authorized officers as of the Amendment Effective Date.

UPSTREAM BIO, INC.

By: /s/ Samantha Truex

Name: Samantha Truex

Title: Chief Executive Officer

MARUHO CO., LTD.

By: /s/ Atsushi Sugita

Name: Atsushi Sugita

Title: President & Chief Executive Officer

Date: May 30, 2023

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this “Agreement”) is made and entered into as of September 13th, 2022, by and between NWALP TPOP Property Owner LLC, a Delaware limited liability company (“Licensor”), and Upstream Bio, Inc., a Delaware corporation (“Licensee”).

A. Licensor is the owner of certain real property located 460 Totten Pond Road, Waltham, Massachusetts and the building situated thereon (the “Property”) which is part of that certain office park known as “Totten Pond Office Park”, comprised of three office buildings known as and numbered 400, 410 and 460 Totten Pond Road, Waltham, Massachusetts, and each located on a parcel of land, and any other improvements that may be part of such office park from time to time, as more particularly described on the attached Exhibit “A-1” which is incorporated herein by reference (the “Office Park”).

B. Licensee has requested the right to use the space consisting of approximately of 2,676 rentable square feet of office space known as Suite 480, located in the building whose address is 460 Totten Pond Road, Waltham, Massachusetts (the “Building”) and as depicted on Exhibit A-2 attached hereto (the “License Area”) to conduct the Permitted Uses (as hereinafter defined) on the Property as further set forth herein.

C. Licensor has agreed to grant Licensee the right to use the License Area in which Licensee can operate the Permitted Uses, subject to the terms and conditions of this Agreement.

NOW THEREFORE, in consideration of the above recitals and the mutual covenants and agreements as set forth herein, Licensor and Licensee hereby agree as follows:

1. Grant of License.

(a) License Area. Licensor hereby grants Licensee an exclusive license to use the License Area. Nothing in this Agreement shall be construed to create any relationship between the parties other than that of licensor and licensee.

(b) Permitted Uses. Licensor hereby permits Licensee to use the License Area for general office use and accessory uses to the same (the “Permitted Uses”). Notwithstanding the foregoing, Licensee shall only be permitted to use the License Area for the Permitted Uses provided the Permitted Uses are allowed and permitted by any and all applicable city, state and federal laws, regulations, ordinances or codes (collectively, the “Applicable Laws”).

(c) Common Areas. Licensee shall have the non-exclusive right during the Term to use the Common Areas without charge for itself, its employees, agents, customers, invitees for ingress, egress, utility service, and other incidental uses, including the use of sidewalks, streets, driveways, utility lines and other improvements in the Common Areas. As used herein, “Common Areas” shall mean all areas within and on the Property that are available for the common use of occupants of the Property including, but not limited to driveways, sidewalks, loading areas, access roads, corridors, landscaping and planted areas and the parking areas within the Office Park. Licensee’s employees and invitees shall be entitled to use up to nine (9) of the parking spaces located on the Office Park on an unreserved, non-exclusive basis.

2. Successors. Licensor and Licensee hereby acknowledge and agree that the grant of the license to utilize the License Area for the Permitted Uses and the respective rights and obligations thereof shall be (i) binding on Licensor, and its successors and assigns, and (ii) binding on Licensee, and its successors and assigns.

3. License Term. The term of this Agreement (“Term”) shall commence on October 1, 2022 (the “License Commencement Date”) and shall continue on a month-to month basis provided, however, Licensor or Licensee may elect to terminate this Agreement at any time by providing sixty (60) days prior written notice thereof to the counterparty (the “License Expiration Date”).

4. Rents and Fees Payable to Licensor.

Licensee shall pay a “License Fee” in monthly installments as follows in the amount of Five Thousand Seven Hundred Ninety-Eight and 00/100 Dollars (\$5,798.00) per calendar month payable, without demand or notice and without any deduction or offset, in advance on the first (1st) day of each calendar month. Any partial month shall be prorated accordingly. The payment of the License Fee shall commence on the License Commencement Date.

All amounts payable to Licensor pursuant to this Agreement shall be paid by Licensee to Licensor at: NWALP TPOP Property Owner, LLC, P.O. Box 780893, Philadelphia, PA 19178-0893, or at such other address as may be designated in writing to Licensee from time to time by Licensor. In the event that any amount due from Licensee to Licensor under this Agreement is not paid within five (5) business days after Licensee’s receipt of written notice from Licensor, provided, however, once Landlord has given Tenant two (2) such notices (whether as to one or more than one failure to pay) during each twelve (12) month period during the Lease Term, Landlord shall not be required to give further notice, then, Licensee will pay to Licensor: (i) a late fee in the amount of five percent (5%) of the overdue sum; and (ii) interest on the sums overdue at the lesser of (a) the prime rate quoted in *The Wall Street Journal* from time to time plus four percent (4%) and (b) the maximum rate of interest permitted by Massachusetts law (such lesser amount being referred to as the “Default Rate”).

5. Costs and Expenses Related to the Permitted Uses. In addition to the License Fee, Licensee shall pay for all utilities consumed within the License Area during the Term, as reimbursement to Licensor for the cost of any such utilities as “Additional Costs” in the amount of Four Hundred Forty-Six and 00/100 (\$446.00) per month in the manner and at the same time as set forth in Section 4 above with respect to License Fee.

6. Delivery of the License Area.

(a) Inspection; Condition of the License Area. Licensee and Licensor acknowledge that the condition of the License Area at the time of the inspection shall constitute the “original state” of the License Area for the purposes of this Agreement. Licensor makes no representations or warranties or covenants of any kind, express or implied with respect to the physical or operating or environmental conditions or repair of the License Area or any improvements located thereon or utilities or septic or sewer systems servicing

same or the use and operation to which the License Area shall be put by Licensee or the applicability of or compliance with any applicable federal, state, or city or other public or governmental authorities now or hereinafter having or claiming jurisdiction over the License Area. Licensor also makes no representations or warranties with respect to the habitability, merchantability or fitness of the License Area for a specific purpose including, but not limited to, the Permitted Uses. Licensee shall utilize the License Area in its "AS-IS" and "WHERE-AS" condition.

(b) Consent, Permits and Approvals. Licensee at its sole expense, shall apply for and obtain any and all applicable consents, permits, licenses and/or approvals which may be required to conduct the Permitted Uses, including, without limitation, the City of Waltham or any other applicable state, city or federal authority.

(c) Care of Property. Licensee shall, at its sole cost and expense, keep and maintain the License Area, in good condition and repair. Any damage, destruction, or debris around, to, or on the License Area caused by Licensee shall be Licensee's responsibility and Licensee shall assume complete responsibility for damage or loss to the License Area arising exclusively from the Permitted Uses, and Licensee shall repair, at Licensee's sole cost and expense, any and all such damage and injury thereto, except to the extent that such damage or loss is due solely to the negligence or willful misconduct of Licensor or Owner Parties (as hereinafter defined). Upon the expiration or earlier termination of this Agreement, Licensee shall return the License Area to the original state, reasonable wear and tear excluded. The costs of any clean-up or restoration efforts made by Licensor as a result of the Permitted Uses will be charged to and paid by Licensee.

(d) Covenants. Licensee covenants and agrees that it shall not injure, deface, or otherwise harm the License Area or use the License Area in any manner that will constitute waste, or a material nuisance to exist in the License Area by reason of the acts of the Licensee, nor permit any activity or omission which results in a material nuisance nor permit the emission of any objectionable noise, vibration or odor by reason of the acts of the Licensee that interferes with tenants or other occupants having business within the Building, nor permit any use of the License Area which will invalidate or increase the premiums on any of the Licensor's insurance.

(e) Alterations. Licensee shall not place or construct any improvements, structures, alterations, modifications, signs, communications equipment, wiring or additions in, to, or upon the License Area (each, an "Alteration") without the prior written approval of Licensor which approval shall not be unreasonably withheld, conditioned, or delayed, provided that Licensor may be withhold such approval in its sole and absolute discretion in the event that such Alteration would potentially affect the Building's heating, ventilating, and air-conditioning, life safety, electrical, plumbing, mechanical or utility systems or any other Building systems or the roof, window frames, outside walls, or load bearing portions of the walls, columns, beams, concrete slab, footings, and structural beams of the roof of the Building.

7. Compliance with Laws. Licensee, at Licensee's expense, shall promptly comply with all laws, ordinances, orders, rules, regulations and requirements of all governmental authorities having jurisdiction, affecting or applicable to conducting the Permitted Uses including, without limitation, the Applicable Laws, provided, however, the foregoing shall not require Licensee to make alterations to the License Area, the Building, or the Property to comply with any Applicable Laws unless such compliance is required solely as a result of Licensee's particular use of the License Area (as opposed to general office use). Licensee shall maintain sufficient supervision and control of Licensee's employees, agents, contractors, licensees, invitees and guests with respect to the aforementioned parties' compliance with Applicable Laws.

8. Environmental.

(a) During the term of this Agreement and in connection with its use of the License Area, Licensee shall, at its sole cost and expense, comply with all present and future laws, statutes, ordinances, rules and regulations, orders, judgments, decrees, licenses and permits including all "Environmental Laws", of all applicable federal, state and local governmental or quasi-governmental authorities, subdivisions, departments, agencies and the like, and with the rules, regulations and requirements of the Licensor's and Licensee's insurance underwriters. Licensee shall promptly pay all fines, penalties and damages that may arise out of or be imposed because of its failure to comply with the provisions of this Agreement.

(b) The term "Environmental Laws" shall mean any and all federal, state and local ordinances, statutes, laws, regulations, rules, orders, judgments, decrees, licenses, permits and policies, as may be amended, relating to the natural environment including but not limited to laws regarding clean air, clean water, storm water and/or sewage disposal, transportation and/or disposal of soil and hazardous substances, materials or wastes, and federal or state environmental reporting or oversight.

(c) Except as otherwise expressly provided in this Agreement and except for the storage, handling and use of reasonable quantities and types of cleaning fluids and office supplies in the License Area in the ordinary course and the prudent conduct of Licensee's business in the License Area, Licensee shall not generate, store, handle or dispose of any oil or any hazardous waste or hazardous substances in, on, about, or from the License Area or the Property in any manner contrary to federal, state or local Environmental Laws and regulations, including, without limitation, Chapters 21C and 21E of Massachusetts General Laws and the regulations promulgated thereunder. Licensor is, to the best of its knowledge, not aware of the generation, storage, handling or disposal of any such substance in, on, about, or from the License Area or the Property by any person or entity in any fashion contrary to any such law or regulation. Licensee agrees to notify Licensor promptly in the event that it becomes aware of any such improper generation, storage, handling or disposal. For purposes of this Section, the terms "oil", "hazardous waste" and "hazardous substance" shall have the meanings ascribed to them in such Chapters 21C and 21E.

(d) Licensee shall provide Licensor with copies of any notices of releases of oil or hazardous materials or substances which are given by or on behalf of Licensee to any federal, state or local agencies or authorities with respect to the License Area or the Property. Such copies shall be sent to Licensor concurrently with their being mailed or delivered to the appropriate governmental agencies or authorities. Licensee also shall provide Licensor with copies of any Notices of Responsibility or Notices of Noncompliance or any other notices received by or on behalf of Licensee from any such agencies or authorities concerning any non-compliance with Environmental Laws, including but not limited to notices regarding the generation, storage, transportation or disposition of oil or hazardous materials, wastes or substances located on or about the License Area or the Property.

(e) To the fullest extent permitted by law, Licensee shall defend, indemnify and hold harmless the Owner Parties (as defined below) from and against any and all costs, damages and expenses incurred and/or loss sustained (including reasonable attorneys' and experts' fees and other expenses), or penalties imposed by agencies by law authorized to do so, arising out of the failure of Licensee to observe, obey and comply with the Environmental Laws. Said "expenses incurred" shall, without limitation, include all loss or expense directly associated with remedying the condition or conditions not in conformity with the Environmental Laws, including but not limited to the costs of remediating any real property and any personal injury resulting from or arising out of the release of oil or hazardous materials into the natural environment, together with all loss sustained by reason of business interruptions occasioned by executive, administrative or judicial order consequent upon the Environmental Laws, or business interruption directly consequent upon the remedying of the condition not in conformity with the Environmental Laws. This indemnification shall survive the expiration or earlier termination of this Agreement. The parties agree, however, that the foregoing indemnification and hold harmless shall not apply to, and Licensee shall not be obligated to defend or indemnify Licensor or the Owner Parties for, any claims to the extent any of the foregoing arise solely out of or are solely caused by the negligence or willful misconduct of Licensor or any of the Owner Parties or those for whom Licensor is responsible at law.

9. Insurance and Indemnity.

(a) Licensee shall fully indemnify and hold harmless Licensor, and its respective directors, officers, subsidiaries, employees, affiliates, agents, joint venture partners, successors and assigns (collectively, the "Owner Parties"), from any and all suits, judgments, litigation, claims, damages, injuries, deaths, liabilities, losses and expenses (including but not limited to reasonable attorney's fees, incurred in defending any claim by a third person, amounts paid in settlement of any claim or suit and costs of clean up, restoration, remediation or removal), fines, penalties and interest, whether or not involving a third party claim arising out of the use of the Property by Licensee, and any of its employees, agents, contractors, licensees, invitees and guests, in connection with the Permitted Uses. The parties agree, however, that the foregoing indemnification and hold harmless shall not apply to, and Licensee shall not be obligated to defend or indemnify the Owner Parties for, any claims to the extent any of the foregoing arise out of or are caused solely by the negligence or willful misconduct of Licensor or any of the Owner Parties, or Licensor's invitees, or those for whom Licensor is responsible at law.

(b) Licensor shall fully indemnify and hold harmless Licensee, and its respective directors, officers, subsidiaries employees, affiliates, agents, joint venture partners, successors and assigns (collectively, the "Licensee Parties"), from any and all suits, judgments, litigation, claims, damages, injuries, deaths, liabilities, losses and expenses (including but not limited to reasonable attorney's fees, incurred in defending any claim by a third person, amounts paid in settlement of any claim or suit and costs of clean

up, restoration, remediation or removal), fines, penalties and interest, whether or not involving a third party claim arising out of arising out of the failure of Licensor or any Owner Parties to perform any covenant, term or condition of this Agreement. The parties agree, however, that the foregoing indemnification and hold harmless shall not apply to, and Licensor shall not be obligated to defend or indemnify the Licensee Parties for, any claims to the extent any of the foregoing arise out of or are caused solely by the gross negligence or willful misconduct of Licensee or any of the Licensee Parties or Licensee's invitees to the Premises.

(c) Insurance. Licensee, at its sole cost and expense, shall maintain and keep in full force and effect the following insurance:

(i) Commercial General Liability Insurance for limits of not less than \$1,000,000 per occurrence Bodily Injury and Property Damage combined and \$2,000,000 in the aggregate.

(ii) Intentionally deleted.

(iii) Workers Compensation Insurance with no less than the minimum limits required by law.

(iv) Employer's Liability Insurance with minimum limits of (\$100,000) Each Accident, (\$500,000) Disease policy limit, (\$100,000) Disease each employee.

(d) All policies of insurance required to be carried by Licensee pursuant to this Section 9 shall be written by licensed and responsible insurance companies authorized to do business in the Commonwealth of Massachusetts. A certificate of the insurance, evidencing the aforementioned coverages and reasonably satisfactory to Licensor, shall be delivered to Licensor prior to Licensee conducting any of any Permitted Uses. All such certificates shall list Licensor, Licensor's mortgagee, and their respective assigns, subsidiaries, members, managers, officers, agents, owners, and employees, and any such parties who have an interest in the Property and designated by Licensor from time to time during the Term as additional insureds on a primary and non-contributory basis, as their interests appear, insured on an occurrence basis and not be cancelable within thirty (30) calendar days written notice to Licensor and its mortgagee(s). Any such policy will contain a provision requiring the insurance carriers to waive their rights of subrogation against Licensor. Neither party shall be liable to the other for any loss or damage to the Property or Licensee's personal property thereon caused by any of the risks covered by insurance and there shall be no subrogated claim by one party's insurance carrier against the other party arising out of any such loss.

10. Surrender of the License Area. On or before the License Expiration Date at 12:00 a.m. midnight, Licensee shall vacate and surrender the License Area, remove all of its personal property from the License Area and Property along with any trash or debris brought on to the License Area and Property by Licensee and shall return the License Area and portions of the Property which have been utilized by Licensee to their original state, ordinary wear and tear excepted.

Notwithstanding anything in this Agreement to the contrary, if Licensee fails to surrender the License Area upon the License Expiration Date or the earlier termination of this Agreement, Licensee shall not be liable for any consequential damages unless such holdover extends beyond sixty (60) days.

11. Default. The following, after the expiration of the applicable notice and cure periods set forth below, shall be deemed a default by under the terms of this Agreement:

(a) Failure by Licensee to pay any amount due from Licensee to Licensor within five (5) business days after Licensee's receipt of written notice from Licensor, provided, however, once Landlord has given Tenant two (2) such notices (whether as to one or more than one failure to pay) during each twelve (12) month period during the Lease Term, Landlord shall not be required to give further notice;;

(b) the failure of a party to comply with or perform any material term, condition, covenant contained herein;

(c) the appointment of a receiver, receiver-manager, trustee, liquidator or custodian duly appointed to administer all or a substantial part of the business of such party, which appointment is not vacated within thirty (30) days of appointment;

(d) the making by a party of a general assignment or attempted assignment for the benefit of creditors which has not been withdrawn within thirty (30) days of its filing or the filing by a party of a voluntary petition of bankruptcy or is petitioned into bankruptcy and such petition has not been dismissed, stayed or withdrawn within thirty (30) days of its filing; AND/OR

(e) Failure by Licensee to maintain the policies of insurance required under this Agreement.

In the event of an occurrence of one or more of the events described in this Section 11(b)-(e) which continues for more than thirty (30) calendar days after the defaulting party's receipt of written notice thereof (or in the event of an allegation of material breach or default not reasonably curable within thirty (30) calendar days of such notice, if the defaulting party has not begun using diligent efforts to cure such alleged breach or default within such thirty (30) calendar days), in addition to all other rights and remedies available at law or in equity, the non-defaulting party shall be entitled to terminate this Agreement upon written notice to the defaulting party.

12. Waiver. Failure on the part of either party to complain of any action or non-action on the part of the other party, no matter how long the same may continue, shall not be deemed to be a waiver by either party of any of its rights hereunder. No waiver at any time of any of the provisions hereof by either party shall be construed as a waiver of any of the other provisions hereunder, and waiver at any time of any of the provisions hereof shall not be construed as a waiver at any subsequent time of the same provisions.

13. Attorneys' Fees. In the event that legal action is commenced to enforce any provisions of this Agreement or any right of either party hereto, the prevailing party shall be entitled to recover its costs and expenses in connection therewith, including reasonable attorneys' fees and court costs incurred.

14. Invalidity. If any term or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement, or the application of such term or provision to persons or circumstances other than those as to which it held invalid or unenforceable, shall not be affected thereby and each term and provision of this Agreement shall be valid and be enforced to the fullest extent permitted by law.

15. Notices. All notices given hereunder shall be in writing and shall be deemed to have been duly given if delivered personally with receipt acknowledged or sent by registered or certified mail or equivalent or by nationally recognized courier, addressed or sent to the parties at their respective addresses as follows:

If to Licensor: NWALP TPOP Property Owner LLC
c/o Anchor Line Partners
One Post Office Square, Suite 4100
Boston, Massachusetts 02109

With a copy to: Adler Pollock & Sheehan P.C.
175 Federal Street, 10th Floor
Boston, MA 02110
Attn: Jonathan M. Sachs, Esquire

If to Licensee: Upstream Bio, Inc.
460 Totten Pond Road, Suite 420
Waltham, Massachusetts 02451

With a copy to: Goodwin Procter LLP
100 Northern Avenue
Boston, Massachusetts 02210
Attn: Stephanie M. Toribio, Esq.

16. Governing Law. This Agreement shall be governed exclusively by the provisions hereof and by the laws of the Commonwealth of Massachusetts, without regard to its conflicts of laws provisions.

17. Section Headings. The section headings throughout this instrument are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Agreement.

18. Assignment. Licensee shall not sell, transfer or assign any of its interest in and to this Agreement or the Property without the prior written consent of Licensor, which consent shall not be unreasonably withheld, conditioned or delayed.

19. Entire Agreement. This Agreement, together with the exhibits hereto, contains all the representations and the entire understanding between the parties hereto with respect to the subject matter hereof. Any prior correspondence, memoranda or agreements are replaced in total by this Agreement and exhibits hereto. This Agreement may be modified only by an agreement in writing signed by each of the parties.

20. No Third Party Beneficiaries. The provisions of this Agreement are for the exclusive benefit of the parties, their successors and permitted assigns, and not for the benefit of any third person, nor shall this Agreement be deemed to have conferred any rights, express or implied, upon any third person. It is expressly understood and agreed that no modification or amendment, in whole or in part, shall require any consent or approval on the part of any occupant other than a party.

21. Force Majeure. The parties shall not be deemed to have defaulted or failed to perform any obligation hereunder if that party's default or inability to perform (including, without limitation, the cancellation of a scheduled event) shall have been caused by Force Majeure (as hereinafter defined), then the time for performance of such obligation shall be excused for the period of such delay or prevention and extended for a period equal to the period of such delay or prevention. The term "Force Majeure" shall for the purposes of this Agreement mean an event or events beyond the control and without the fault of that party, including (without limitation) acts of God, acts of Government, fire or other casualty, flood, dangerous weather conditions, death, injury, failure to obtain a required permit, explosions, strikes, labor disputes, vandalism or sabotage, acts of war or a public enemy, terrorist acts, civil riots or commotions, or acts of military authority, any other unforeseeable causes beyond the responsible party's reasonable control (whether similar or dissimilar to the foregoing events), provided the same is not the result of the negligence or fault of such party and cannot, by the exercise of commercially-reasonable due diligence, be overcome or avoided by the party claiming the Force Majeure event.

22. No Lease Created. This Agreement does not and shall not be deemed constitute a lease or a conveyance of personal or real property by Licensor to Licensee. Licensee and Licensor agree that Licensee's use of the License Area is a license of the License Area and appurtenant reasonably required areas for ingress, egress and other common areas, only and not a lease, revocable by each party in accordance with the terms of this Agreement, and that this Agreement does not grant to Licensee any interest in real property.

23. Relationship of the Parties. Nothing contained in this Agreement will be deemed to constitute Licensee and Licensor as partners or joint venturers with each other. Each party acknowledges and agrees that it neither has nor will give the appearance or impression of having any legal authority to bind or commit the other party in any way. Each party agrees that it will be solely responsible for the payment of all wages, federal, state and local income taxes, as well as all workers' compensation insurance requirements for all personnel it supplies pursuant to this Agreement.

24. Counterparts. This Agreement may be executed by facsimile and PDF (and other similar electronic format) and in any number of counterparts, and each of such counterparts shall be deemed an original. Any signature to this Agreement transmitted via facsimile (or other electronic means, e.g., DocuSign) shall be deemed an original signature and be binding upon the parties hereto.

25. [Intentionally Omitted]

26. Brokerage. Licensor and Licensee each hereby warrants and represents to the other that it has dealt with no broker in connection with the consummation of this Agreement and, in the event of any brokerage claims predicated upon prior dealings with Licensor or Licensee, the party participating in such prior dealings shall defend the same and indemnify the other party hereto against any such claim.

27. Waiver. Licensee and Licensor hereby KNOWINGLY AND VOLUNTARILY WAIVE TRIAL BY JURY in any action, proceeding or counterclaim brought by either party against the other or any matter whatsoever arising out of or in any way connected with this Agreement, the relationship of the Licensor and Licensee created hereby, Licensee's use or occupancy of the License Area, and/or any claim for injury or damage. In the event Licensor commences any action or proceeding for non-payment of charges or sums due hereunder, Licensee shall not interpose any counterclaim of any nature or description in any action or proceeding, but such claim shall be relegated to an independent action of law.

LICENSOR:

NWALP TPOP PROPERTY OWNER LLC,
a Delaware limited liability company

By: ALP PHOP Manager, LLC, a
Massachusetts limited liability
company, its appointed representative

By: /s/ Brian Chaisson

Name: Brian Chaisson

Title: Manager

LICENSEE:

UPSTREAM BIO, INC., a Delaware
corporation

By: /s/ Adam Houghton

Name: Adam Houghton

Title: Chief Business Officer

Exhibit "A-1"

Property Description

Exhibit "A-2"

The License Area

FIRST AMENDMENT TO LICENSE AGREEMENT

This FIRST AMENDMENT TO LICENSE AGREEMENT (this “**Amendment**”) is entered into this 28th day of October, 2022 (the “**Effective Date**”) by and between NWALP TPOP Property Owner LLC, a Delaware limited liability company (“**Licensor**”), and Upstream Bio, Inc., a Delaware corporation (“**Licensee**”).

WITNESSETH:

WHEREAS, Licensor and Licensee entered into that certain License Agreement dated as of September 13, 2022 (the “**License Agreement**”), regarding premises consisting of approximately 2,676 rentable square feet and situated in that certain building located at 460 Totten Pond Road, Waltham, Massachusetts; and

WHEREAS, Licensee has requested the License Area be expanded to include that certain office space located within the Building known as Suite 460 and consisting of approximately 5,470 rentable square and as depicted on Exhibit “A-3” attached hereto (the “**Expansion License Area**”).

WHEREAS, Licensor and Licensee mutually desire to amend the License Agreement as provided for below.

NOW, THEREFORE, in consideration of the mutual covenants contained in this Amendment, the License Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Licensor and Licensee hereby agree as follows effective as of the Effective Date:

1. The “Expansion Commencement Date” shall be defined herein as the later of (i) November 1, 2022, and (ii) the date that Licensor delivers the Expansion License Area to the Licensee.
2. As of Expansion Commencement Date:
 - A. The definition of “License Area” as used in the License Agreement shall be amended to mean, together, the following: (i) that certain space consisting of approximately of 2,676 rentable square feet of office space located in the Building and known as Suite 480 as depicted on Exhibit A-2 of the License Agreement (the “**Original License Area**”) and (ii) the Expansion License Area. The License Area shall consist of a total of approximately 8,146 rentable square feet; and
 - B. Exhibit “A-2” of the License Agreement shall be amended to refer to the Original License Area.
 - C. Exhibit “A-3” attached hereto shall be incorporated into the License Agreement and made a part thereof.

3. As of March 1, 2023, the License Fee owed by Licensee to Licensor pursuant to Section 4 of the License Agreement shall be increased to Seventeen Thousand Six Hundred Forty-Nine and 67/100 Dollars (\$17,649.67) per month and the Additional Costs due from Licensee pursuant to Section 5 of the License Agreement shall be increased to One Thousand Three Hundred Fifty Seven and 67/100 Dollars (\$1,357.67).
4. As material inducement to Licensor entering into this Amendment, Licensee represents and certifies to Licensor that as of the date hereof:
 - (i) the License Agreement as modified by this Amendment, contains the entire agreement between the parties hereto relating to the License Area, as amended by this Amendment, and that there are no other agreements between the parties relating to the License Area, as amended by this Amendment, the License Agreement or the Building which are not contained or referred to herein or in the License Agreement,
 - (ii) as of the Effective Date, Licensor is not in default in any respect in any of the terms, covenant and conditions of the License Agreement,
 - (iii) as of the Effective Date, Licensee has no existing set-offs, counterclaims or defenses against Licensor under the License Agreement,
 - (iv) Licensee has not assigned or pledged its leasehold interest under the License Agreement or sublet or licensed or granted any other occupancy rights with respect to any or all of the License Area,
 - (v) no consent or approval of any third party or parties is required in order for Licensee to enter into and be bound by this Amendment and
 - (vi) Licensee is not, and the performance by Licensee of its obligations hereunder shall not render Licensee, insolvent within the meaning of the United States Bankruptcy Code, the Internal Revenue Code or any other applicable law, code or regulation.
5. Licensee acknowledges and agrees that:
 - (i) Licensee is in occupancy of the Original License Area and that Licensor has no obligation to perform any work or improvements to the Original License Area under the terms of the License Agreement as amended by this Amendment. Licensee accepts occupancy of the Original License Area for the duration of the Term in its "AS-IS" condition; and
 - (ii) Licensor has no obligation to perform any work or improvements to the Expansion License Area under the terms of the License Agreement as amended by this Amendment. Upon the Expansion Commencement Date, Licensee shall accept occupancy of the Expansion License Area for the duration of the Term in its "AS-IS" condition.
6. Licensor agrees to allow Licensee to have access to the Expansion License Area following the Effective Date for design, space planning, minor improvements, inspection and the like and for installation of its telecommunications equipment, all subject to obtaining Licensor's approval to the extent such approval is required by Section 6(e) of the License Agreement. Prior to any entry onto the Expansion License Area, Licensee shall deliver to Licensor certificates of insurance

evidencing the coverages required pursuant to the License Agreement. With respect to the period commencing upon any such early entry, all of Tenant's obligations hereunder (other than its obligation to pay the License Fee and Additional Costs) shall commence.

Notwithstanding the foregoing, upon the commencement of any such installation or construction within the Expansion License Area, if applicable, Tenant's obligation to pay the increased amount of Additional Costs, as set forth in Section 3 of this Amendment, shall commence therewith.

7. Licensor and Licensee hereby represent that they have not dealt with any brokers with respect to the transactions contemplated by this Amendment that are owed a fee in connection therewith from Licensor or Licensee. Licensor and Licensee hereby agree to defend, indemnify and hold harmless the other, and its successors and assigns, against and from all claims, losses, liabilities and expenses including, without limitation, reasonable attorney's fees, arising out of any claim by any broker, consultant, finder or like agent, which are based upon alleged dealings with the Licensor or Licensee with respect to this Amendment.
8. Capitalized terms that are not otherwise defined herein shall have the meaning set forth in the License Agreement.
9. Other than as expressly set forth herein, the terms and provisions of the License Agreement are hereby ratified, confirmed and shall remain unmodified and in full force and effect.
10. This Amendment shall be governed by the laws of the Commonwealth of Massachusetts without regard to its conflict of law provisions.
11. This Amendment may be executed in counterparts, each of which shall constitute an original document and all of which, together, shall constitute one and the same instrument. Signed copies of this Amendment or of the signature pages hereto may be exchanged by mail (either United States Postal Service or via reputable overnight carrier) or by e-mail in pdf, docusign or other printable format and any such method shall be equally binding on the parties and shall have the same legal effect as delivery of an original executed copy of this Amendment for all purposes, and in all circumstances, including, but not limited to, collection, admissibility, authentication, or any other legal purpose.

IN WITNESS WHEREOF, Licensors and Licensees have each caused this Amendment to be executed as of the date first above written.

LICENSOR:

NWALP TPOP PROPERTY OWNER LLC, a
Delaware limited liability company

By: ALP PHOP Manager, LLC, a Massachusetts limited
liability company, its appointed representative

By: /s/ Brian Chaisson

Name: Brian Chaisson

Title: Manager

LICENSEE:

UPSTREAM BIO, INC., a Delaware corporation

By: /s/ Adam Houghton

Name: Adam Houghton

Title: Chief Business Officer

Exhibit "A-3"

The Expansion License Area

SECOND AMENDMENT TO LICENSE AGREEMENT

This SECOND AMENDMENT TO LICENSE AGREEMENT (this “**Amendment**”) is entered into this 28th day of June, 2023 (the “**Effective Date**”) by and between NWALP TPOP Property Owner LLC, a Delaware limited liability company (“**Licensor**”), and Upstream Bio, Inc., a Delaware corporation (“**Licensee**”).

W I T N E S S E T H:

WHEREAS, Licensor and Licensee entered into that certain License Agreement dated as of September 13, 2022, as amended by that certain First Amendment to License Agreement dated as of October 28, 2022 (the “**First Amendment**”) (as so amended, the “**License Agreement**”), regarding premises consisting of approximately 8,146 rentable square feet and situated in that certain building located at 460 Totten Pond Road, Waltham, Massachusetts; and

WHEREAS, Licensor and Licensee mutually desire to amend the License Agreement as provided for below.

NOW, THEREFORE, in consideration of the mutual covenants contained in this Amendment, the License Agreement and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, Licensor and Licensee hereby agree as follows effective as of the Effective Date:

1. Section 3 of the License Agreement shall be deleted in its entirety and substituting therefor the following:
“License Term. The initial term of this Agreement (“**Initial Term**”) shall commence on October 1, 2022 (the “**License Commencement Date**”) and shall expire on June 30, 2023 (the “**Initial Term Expiration Date**”). Upon the Initial Term Expiration Date, this Agreement shall continue on a month-to month basis (the “**Extension Term**,” and together with the Initial Term, the “**Term**”) provided that either Licensor or Licensee may elect to terminate this Agreement by providing ninety (90) days prior written notice thereof (a “**Termination Notice**”) to the counterparty (the “**License Expiration Date**”). Notwithstanding the foregoing, the earliest that either party may deliver the Termination Notice shall be April 1, 2024.”
2. For the duration of the Extension Term, Licensee shall continue to pay the License Fee and Additional Costs as set forth in Section 3 of the First Amendment.
3. For the avoidance of doubt, Licensor shall not have the right to relocate Licensee from the License Area during the Term.

4. As material inducement to Licensor entering into this Amendment, Licensee represents and certifies to Licensor that as of the date hereof:
(i) the License Agreement as modified by this Amendment, contains the entire agreement between the parties hereto relating to the License Area, as amended by this Amendment, and that there are no other agreements between the parties relating to the License Area, as amended by this Amendment, the License Agreement or the Building which are not contained or referred to herein or in the License Agreement,
(ii) as of the Effective Date, Licensor is not in default in any respect in any of the terms, covenant and conditions of the License Agreement, (iii) as of the Effective Date, Licensee has no existing set-offs, counterclaims or defenses against Licensor under the License Agreement, (iv) Licensee has not assigned or pledged its leasehold interest under the License Agreement or sublet or licensed or granted any other occupancy rights with respect to any or all of the License Area, (iv) no consent or approval of any third party or parties is required in order for Licensee to enter into and be bound by this Amendment and (vi) Licensee is not, and the performance by Licensee of its obligations hereunder shall not render Licensee, insolvent within the meaning of the United States Bankruptcy Code, the Internal Revenue Code or any other applicable law, code or regulation.
5. Licensee acknowledges and agrees that Licensee is in occupancy of the License Area and that Licensor has no obligation to perform any work or improvements to the License Area under the terms of the License Agreement as amended by this Amendment. Licensee accepts occupancy of the License Area for the extended duration of the Term in its “**AS-IS**” condition.
6. Licensor and Licensee hereby represent that they have not dealt with any brokers with respect to the transactions contemplated by this Amendment that are owed a fee in connection therewith from Licensor or Licensee. Licensor and Licensee hereby agree to defend, indemnify and hold harmless the other, and its successors and assigns, against and from all claims, losses, liabilities and expenses including, without limitation, reasonable attorney’s fees, arising out of any claim by any broker, consultant, finder or like agent, which are based upon alleged dealings with the Licensor or Licensee with respect to this Amendment.
7. Capitalized terms that are not otherwise defined herein shall have the meaning set forth in the License Agreement.
8. Other than as expressly set forth herein, the terms and provisions of the License Agreement are hereby ratified, confirmed and shall remain unmodified and in full force and effect.
9. This Amendment shall be governed by the laws of the Commonwealth of Massachusetts without regard to its conflict of law provisions.

10. This Amendment may be executed in counterparts, each of which shall constitute an original document and all of which, together, shall constitute one and the same instrument. Signed copies of this Amendment or of the signature pages hereto may be exchanged by mail (either United States Postal Service or via reputable overnight carrier) or by e-mail in pdf, docusign or other printable format and any such method shall be equally binding on the parties and shall have the same legal effect as delivery of an original executed copy of this Amendment for all purposes, and in all circumstances, including, but not limited to, collection, admissibility, authentication, or any other legal purpose.

IN WITNESS WHEREOF, Licensor and Licensee have each caused this Amendment to be executed as of the date first above written.

LICENSOR:

NWALP TPOP PROPERTY OWNER LLC, a
Delaware limited liability company

By: ALP PHOP Manager, LLC, a Massachusetts limited
liability company, its appointed representative

By: /s/ Brian Chaisson

Name: Brian Chaisson

Title: Manager

LICENSEE:

UPSTREAM BIO, INC., a Delaware corporation

By: /s/ Adam Houghton

Name: Adam Houghton

Title: Chief Business Officer

June 27, 2023

SUBLEASE**UNIT NO. 3 OF THE TOTTEN POND OFFICE PARK CONDOMINIUM,
460 TOTTEN POND ROAD, WALTHAM, MASSACHUSETTS**

THIS INSTRUMENT IS A SUBLEASE, dated as of December 27, 2021 which the Sublandlord and the Subtenant are the parties hereinafter named, and which relates to space in Unit No. 3 of the Totten Pond Office Park Condominium, 460 Totten Pond Road, Waltham, Massachusetts (the "Building" or the "Unit").

WHEREAS, pursuant to that certain Lease dated as of August 31, 2017, by and between The Realty Associates Fund X L.P., a Delaware limited partnership ("Master Landlord"), as landlord, and Sublandlord, as tenant (the "Master Lease"), a copy of which Lease is attached hereto as Exhibit A, Sublandlord leased from Master Landlord certain premises (the "Original Premises") located in the Building which Original Premises contain 3,405 rentable square feet of space, as more fully described in the Master Lease; and

WHEREAS, Subtenant desires to sublease from Sublandlord the Original Premises located on the fourth floor of the Building and containing approximately 3,405 rentable square feet (excluding the elevators, staircases and mechanical closets) (the "Subleased Premises"), as more particularly shown on the floor plan attached hereto as Exhibit B (the "Floor Plan"), on the terms and conditions set forth herein. The parties to this instrument hereby agree with each other as follows:

Therefore, in mutual consideration thereof, the parties to this instrument hereby agree with each other as follows:

ARTICLE I
BASIC SUBLEASE PROVISIONS

- 1.1 Subtenant, as defined herein, expressly acknowledges and recognizes that as a condition subsequent to the execution of this Sublease, Sublandlord, as defined herein, must comply Article 6 of the Master Lease, which such provision is expressly incorporated herein by reference. This Sublease is conditioned upon procuring the consent of Master Landlord to this Sublease in accordance with the Master Lease (the "Consent"), and Sublandlord and Subtenant shall cooperate with each other in seeking Master Landlord's Consent. Subtenant agrees to provide Sublandlord necessary support and documentation to procure the necessary Consent from the Master Landlord. In the event Master Landlord does not consent to the Sublease on or before fifteen (15) days immediately following the date of this Sublease (the "Consent Deadline"), Subtenant agrees that this Sublease is void and (i) all amounts previously paid by either party to the other on account of this Sublease shall be returned; and (ii) the parties thereupon shall be relieved of any further liability or obligation under this Sublease, except for those liabilities or obligations which have accrued and remain unperformed as of the date this Sublease is so terminated.

1.2 **BASIC DATA AND DEFINITIONS.**

Sublandlord: Imaging Endpoints II, LLC, an Arizona limited liability company, with its principal place of business at 9977 N 90th St, Scottsdale, AZ 85258.

Subtenant: Upstream Bio, Inc., a Delaware corporation with its principal place of business at 55 Accord Dr. Norwell, Massachusetts 02061

Basic Rent: Subject to the provisions of Section 3.1, Subtenant shall pay Basic Rent as follows:

<u>Rental Period</u>	<u>Rent Per RSF</u>	<u>Annual Basic Rent</u>	<u>Monthly Basic Rent</u>
Sublease Year 1	\$ 26.00	\$88,530.00	\$ 7,377.50
Sublease Year 2	\$ 27.00	\$91,935.00	\$ 7,661.25

Premises Rentable Area: Agreed to be 3,405 square feet located on the fourth floor of the Building.

Permitted Uses: General business and professional offices, and for no other uses.

Escalation Factor: 2.524%, as computed in accordance with the Escalation Factor Computation.

Security Deposit: \$7,377.50, subject to the provision of Article 14 below.

Sublease Rent Commencement Date: The date that is one (1) month following the Sublease Commencement Date.

Sublease Term: The period of time commencing the later date to occur of (i) the date on which Sublandlord tenders possession of the Subleased Premises to Subtenant in the "Sublease Delivery Condition" (as defined below) and (ii) the date on which Sublandlord delivers a fully executed copy of this Sublease and the "Consent" (as hereinafter defined) (the "Sublease Commencement Date"), and shall continue through January 31, 2024 (the "Termination Date").

Parking Spaces: Eleven (11) spaces (computed at 3.3 spaces per 1,000 square feet of Premises Rentable Area), on an unreserved, first come, first served basis (subject to Section 14.21).

1.3 ADDITIONAL DEFINITIONS.

Base Operating Expenses: The Operating Expenses for the year ending December 31, 2021.

Base Taxes: The real estate taxes for the fiscal year ending June 30, 2018, as they may be reduced by the amount of any abatement.

Building Rentable Area: Agreed to be 141,981 square feet.

Business Days: All days except Saturday, Sunday, New Year's Day, Martin Luther King Day, President's Day, Patriot's Day, Memorial Day, Bunker Hill Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, Christmas Day (and the following day when any such day occurs on Sunday) and such other days that Subtenants occupying at least 50% of Total Office Area now or in the future recognize as holidays for their general office staff.

Escalation Factor Computation: Premises Rentable Area divided by 95% of Building Rentable Area.

Sublease Year: A period of twelve (12) consecutive months during the Sublease Term commencing on the Sublease Commencement Date. The first Sublease Year will commence on the Sublease Commencement Date and end on the day immediately preceding the first anniversary of the Sublease Rent Commencement Date, except that if the Sublease Rent Commencement Date shall be other than the first day of a calendar month, the first Sublease Year shall end on the last day of the calendar month on which such first anniversary shall fall.

Initial Public Liability Insurance: \$3,000,000 per occurrence (combined single limit) for property damage, bodily injury or death.

ARTICLE II
SUBLEASED PREMISES AND APPURTENANT RIGHTS

2.1 LEASE OF SUBLEASED PREMISES. (a) Grant. Sublandlord hereby leases to Subtenant for the Sublease Term the entirety of the Subleased Premises which Sublandlord leased, as described and defined in Paragraph 2.1 of Sublandlord's Master Lease, which is hereby incorporated herein by reference.

(b) Incorporation of Master Lease by Reference. Except to the extent such terms and provisions are inconsistent with or are specifically contrary to the express written provisions of this Sublease and except as provided in this Section 2.1(b), all of the terms, covenants and conditions of the Master Lease are by this reference incorporated herein and made a part of this Sublease with the same force and effect as if fully set forth herein, provided, however, that for purposes of such incorporation, (i) the term "Lease" as used in the Master Lease shall refer to this Sublease; (ii) the term "Landlord" (and other defined terms containing the term "Landlord" or any derivative thereof) as used in the Master Lease, and subject to the limitations of Sublandlord's responsibilities to Subtenant under the Master Lease set forth in this Section 2.1(b), shall refer to Sublandlord; (iii) the term "Tenant" (and other defined terms containing the term "Tenant" or any derivative thereof) as used in the Master Lease shall refer to Subtenant; (iv) the terms "Term," "Initial Term," and "Lease Term" as used in the Master Lease shall refer to the Sublease Term defined herein; (v) the term "expiration date" as used in the Master Lease shall mean the Termination Date of this Sublease; (vi) the term "Premises," as used in the Master Lease shall refer to the Subleased Premises; (viii) the term "Basic Rent" as used in the Master Lease shall refer to the Basic Rent due under this Sublease; and (ix) the term "Rent Commencement Date" as used in the Master Lease shall refer to the Sublease Rent Commencement Date under this Sublease. In the event of any inconsistency between the provisions set forth in this Sublease and the provisions of the Master Lease, as incorporated herein, the provisions of this Sublease shall control as between Sublandlord and Subtenant. Notwithstanding the foregoing, the following provisions of the Master Lease are expressly not incorporated into this Sublease: (1) the definitions of Security Deposit, Base Operating Expenses, and Tenant's Delay, and (2) Sections 4.1, 4.3, 14.23, 15.1, 15.2, and such other terms of the Master Lease which are inapplicable, inconsistent with, or specifically modified by the terms of this Sublease (collectively, the "Excluded Master Lease Provisions").

2.2 APPURTENANT RIGHTS AND RESERVATION. All rights and reservations applicable to the Sublandlord as defined and described in the Master Lease are incorporated by reference herein and made likewise applicable to the Subtenant hereunder.

ARTICLE III RENT

3.1 PAYMENT. (a) Subtenant agrees to pay to Sublandlord, or as directed by Sublandlord, commencing on the Sublease Commencement Date, without offset, abatement, deduction or demand, the Basic Rent. Such Basic Rent shall be payable in equal monthly installments, in advance, on the first day of each and every calendar month during the Sublease Term, by direct wire transfer or other electronic means as may be agreed to by the Parties, in lawful money of the United States. At the time of Subtenant's execution and delivery of this Sublease, Subtenant shall pay the Basic Rent that will be due for the first full month following the Sublease Rent Commencement Date. Basic Rent for any period during the term hereof which is for less than one month shall be prorated based upon the actual number of days of the calendar month involved. In the event that any

installment of Basic Rent is not paid when due, Subtenant shall pay, in addition to any charges under Section 14.18, at Sublandlord's request an administrative fee equal to 1% of the overdue payment. Sublandlord and Subtenant agree that all amounts due from Subtenant under or in respect of this Sublease, whether labeled Basic Rent, Escalation Charges, additional charges or otherwise, shall be considered as rental reserved under this Sublease for all purposes, including without limitation regulations promulgated pursuant to the Bankruptcy Code, and including further without limitation Section 502(b) thereof.

(b) Basic Rent for any partial month shall be pro-rated on a daily basis, and if the first day on which Subtenant must pay Basic Rent shall be other than the first day of a calendar month, the first payment which Subtenant shall make to Sublandlord shall be equal to a proportionate part of the monthly installment of Basic Rent for the partial month from the first day on which Subtenant must pay Basic Rent to the last day of the month in which such day occurs, plus the installment of Basic Rent for the succeeding calendar month.

3.2 ADDITIONAL RENT. (a) All amounts other than Basic Rent that are due to Sublandlord from Subtenant under this Sublease are hereinafter referred to collectively as "Additional Rent," and Basic Rent and Additional Rent may be referred to collectively as "Rent."

(b) Subtenant shall pay the Escalation Charge (1) all Operating Expenses and Real Estate Taxes (as such terms are defined in the Master Lease) assessed or charged to Sublandlord pursuant to Articles 8 and 9 of the Master Lease, (2) all other additional rent or charges payable by Sublandlord under the Master Lease, (3) all costs incurred by Sublandlord in operating (including the costs of utilities consumed in such operation), repairing, maintaining and replacing any supplementary or additional mechanical systems or equipment installed by Sublandlord in the Premises and which service the Subleased Space and (4) all costs of utilities supplied to the Subleased Premises which are not separately metered or submetered to the Subleased Space (collectively, "Additional Rent"), in the manner and at the same time as set forth in Section 3.1(a) above with respect to the payment of Basic Rent. Basic Rent and Additional Rent may be referred to collectively in this Sublease as "Rent."

ARTICLE IV
CONDITION

4.1 CONDITION OF THE SUBLEASED PREMISES. The Subleased Premises are being leased in their condition **AS IS WITHOUT REPRESENTATION OR WARRANTY** by Sublandlord (the "Sublease Delivery Condition"). Subtenant acknowledges and agrees that Subtenant shall be solely responsible for any work done in or to the Subleased Premises, including without limitation with respect to telephone/data cabling or infrastructure, floor coring, supplemental cooling, any furniture, any security system and any other changes with respect to the Subleased Premises (it being understood that all

such work shall be subject to the terms and conditions of this Sublease). Subtenant acknowledges that it has inspected the Subleased Premises and common areas of the Building and has found the same satisfactory for their intended use. Subtenant shall not be entitled to make any alterations or improvements except as provided for herein.

ARTICLE V
USE OF SUBLEASED PREMISES

5.1 PERMITTED USE. (a) Subtenant agrees that the Subleased Premises shall be used and occupied by Subtenant only for Permitted Uses specifically excluding use for governmental, utility company or employment agency offices.

(b) Subtenant agrees to conform to the following provisions during the Sublease Term:

(i) Subtenant shall cause all freight to be delivered to or removed from the Building and the Subleased Premises in accordance with reasonable rules and regulations established by Sublandlord therefore;

(ii) Subtenant will not place on the exterior of the Subleased Premises (including both interior and exterior surfaces of doors and interior surfaces of windows) or on any part of the Building outside the Subleased Premises, any signs, symbol, advertisement or the like visible to public view outside of the Subleased Premises. Sublandlord agrees to facilitate Subtenant's inclusion in the building's directory in the lobby of the Building. The cost of placing Subtenant's name in the directory shall be paid by Subtenant. Subtenant shall be solely responsible for maintaining, repairing and removing any signage not provided by Sublandlord;

(iii) Subtenant shall not perform any act or carry on any practice which may injure the Subleased Premises, or any other part of the Building, or cause any offensive odors or loud noise or constitute a nuisance or a menace to any other Subtenant or Subtenants or other persons in the Building;

(iv) Subtenant shall, at Subtenant's sole expense, promptly comply with all applicable laws and ordinances, governmental rules, regulations, and orders, certificates of occupancy, conditional use or other permits, variances, covenants and restrictions of record, the recommendations of Sublandlord's engineers or other consultants, and requirements of any fire insurance underwriters, rating bureaus or government agencies, now in effect or which may hereafter come into effect, whether or not they reflect a change in policy from that now existing, during the Sublease Term or any part of the Sublease Term hereof, relating in any manner to the Subleased Premises and the occupation and use by Subtenant of the Subleased Premises. Subtenant shall, at Subtenant's sole expense, comply with all requirements of the Americans With Disabilities Act that relate to the Subleased Premises, and all federal, state and local laws and regulations governing occupational safety and health.

5.2 INSTALLATIONS AND ALTERATIONS BY SUBTENANT.

(a) Subtenant shall make no alterations, additions or improvements (including, but not be limited to, the installation or alteration of security or fire protection systems, communication systems, millwork, shelving, file retrieval or storage systems, carpeting or other floor covering, window and wall coverings, electrical distribution systems, lighting fixtures, telephone or computer system wiring, HVAC and plumbing) in or to the Subleased Premises (including, any improvements necessary for Subtenant's initial occupancy of the Subleased Premises) without the prior written consent of Sublandlord and Master Landlord, which consent shall not be unreasonably withheld, conditioned or delayed. The foregoing does not apply in the case of interior cosmetic or decorative alterations that (i) do not affect the electrical, mechanical or plumbing systems or equipment serving the Subleased Premises, and (ii) do not require a building permit or other governmental approval or review; and (iii) cost less than \$10,000.00 in the aggregate. Any such alterations, additions or improvements for which consent is required shall be in accordance with Section 5.2 of the Master Lease.

(b) All articles of personal property and all business and trade fixtures, machinery and equipment and furniture owned or installed by Subtenant solely at its expense in the Subleased Premises ("Subtenant's Removable Property") shall remain the property of Subtenant and may be removed by Subtenant at any time prior to the expiration of this Sublease, provided that Subtenant, at its expense, shall repair any damage to the Building caused by such removal. Any Subtenant's Removable Property shall be installed at the sole risk of Subtenant and shall be insured by Subtenant in accordance with Article X. In connection with the installation of telecommunication equipment by Subtenant, such installation shall occur only in such locations and in such a manner as approved in writing by the Sublandlord (which approval shall not be unreasonably delayed, conditioned or withheld) and none of such wires, ducts or equipment shall be located in areas outside the Subleased Premises. Notwithstanding any other provision of this Sublease, at the request of Sublandlord, telecommunication wires, ducts or equipment installed by the Subtenant shall be removed by Subtenant at the expiration or earlier termination of the Sublease Term, and all damage caused by such removal repaired. Telephone switches, antennae, electronic distribution boxes and similar equipment shall only be located within the Subleased Premises.

(c) In the course of any work being performed by Subtenant (including without limitation the "field installation" of any Subtenant's Removable Property), Subtenant agrees to use labor compatible with that being employed by Sublandlord for work in or to the Building or other buildings owned by Sublandlord or its affiliates (which term, for purposes hereof, shall include, without limitation, entities which control or are under common control with Sublandlord, or which are controlled by Sublandlord or, if Sublandlord is a partnership, by any partner of Sublandlord) and not to employ or permit the use of any labor or otherwise take any action which might result in a labor dispute involving personnel providing services in the Building pursuant to arrangements made by Sublandlord.

- 5.3 HAZARDOUS MATERIALS. (a) For purposes of this Sublease, the term "Hazardous Material" means any hazardous substance, hazardous waste, infectious waste, petroleum product or toxic substance, material, or waste which becomes regulated or is defined as such by any local, state or federal governmental authority. Except for reasonable quantities of ordinary office supplies such as copier toners, liquid paper and ink and common cleaning materials and solvents or other substances commonly used in non-hospital medical offices (all of which shall in any event be kept, stored and used only in accordance with applicable laws and regulations), Subtenant shall not cause or permit any Hazardous Material to be brought, kept or used in or about the Subleased Premises or the Park by Subtenant, its agents, employees, contractors, or invitees. Subtenant hereby agrees to indemnify Sublandlord from and against any breach by Subtenant of the obligations stated in the preceding sentence, and agrees to defend and hold Sublandlord harmless from and against any and all claims, judgments, damages, penalties, fines, costs, liabilities, or losses (including, without limitation, diminution in value of the Building or the Park, damages for the loss or restriction or use of rentable space or of any amenity of the Park, damages arising from any adverse impact on marketing of space in the Building or the Park, sums paid in settlement of claims, attorneys' fees, consultant fees and expert fees) which arise during or after the Sublease Term as a result of such breach. This indemnification of Sublandlord by Subtenant includes, without limitation, costs incurred in connection with any investigation of site conditions and any cleanup, remedial removal, or restoration work required due to the presence of Hazardous Material. Subtenant shall promptly notify Sublandlord of any release of a Hazardous Material in the Subleased Premises or (if caused by Subtenant or its agents or contractors) in the Park.
- (b) If Subtenant knows, or has reasonable cause to believe, that a Hazardous Material, or a condition involving or resulting from same, has come to be located in, on or under or about the Subleased Premises or the Park, Subtenant shall immediately give written notice of such fact to Sublandlord. Subtenant shall also immediately give Sublandlord (without demand by Sublandlord) a copy of any statement, report, notice, registration, application, permit, license, given to or received by Subtenant from or to any governmental authority or persons entering or occupying the Subleased Premises, concerning the presence, spill, release, discharge of or exposure to, any Hazardous Material or contamination in, on or about the Subleased Premises or the Park.

ARTICLE VI
ASSIGNMENT AND SUBLETTING

6.1 RESTRICTION. (a) Except as provided in this Article VI, Subtenant covenants and agrees that whether voluntarily, involuntarily, by operation of law or otherwise neither this Sublease nor the term and estate hereby granted, nor any interest herein or therein, will be assigned, mortgaged, pledged, encumbered or otherwise transferred and that neither the Subleased Premises nor any part thereof will be encumbered in any manner by reason of any act or omission on the part of Subtenant, or used or occupied or permitted to be used or occupied, by anyone other than Subtenant, or for any use or purpose other than a Permitted Use, or be sublet (which term, without limitation, shall include granting of concessions, licenses and the like) in whole or in part, or be offered or advertised for assignment or subletting without the prior written consent of Sublandlord and Master Landlord, which consent of Sublandlord shall not be unreasonably withheld, conditioned, or delayed in accordance with the terms and conditions of the Master Lease applicable to Master Landlord's consent rights). Notwithstanding the foregoing, Subtenant shall have the right to conduct a Permitted Transfer (as hereinafter defined) without Sublandlord's prior consent, but upon at least ten (10) days prior written notice to Sublandlord, sublet all or any portion of the Subleased Premises or assign its interest in this Sublease to: (i) to any person(s) or entity who controls, is controlled by or is under common control with Tenant, (ii) to any entity resulting from the merger, acquisition, consolidation or other reorganization with Tenant, whether or not Tenant is the surviving entity, (iii) to any person or legal entity which acquires all or substantially all of the assets or stock of Tenant (each of the foregoing is hereinafter referred to as a "Permitted Transfer").

(b) Without limiting the foregoing, any agreement pursuant to which: (x) Subtenant is relieved from the obligation to pay, or a third party agrees to pay on Subtenant's behalf, all or any portion of Basic Rent, Escalation Charges or other charges due under this Sublease; and/or (y) a third party undertakes or is granted the right to assign or attempt to assign this Sublease or sublet or attempt to sublet all or any portion of the Subleased Premises, shall for all purposes hereof be deemed to be an assignment of this Sublease and subject to the provisions of this Article VI. Unless the stock or partnership interest (or other evidence of the ownership of Subtenant) is registered and publicly traded on an exchange regulated by the United States Securities and Exchange Commission, the provisions of this paragraph (a) shall apply to a transfer (by one or more transfers over the Sublease Term) of fifty one percent (51%) or more of the stock or partnership interests or other evidences of ownership of Subtenant as if such transfer were a prohibited assignment of this Sublease.

(c) If, in violation of this Article 6, this Sublease be assigned, or if the Subleased Premises or any part thereof be sublet or occupied by anyone other than Subtenant and there is an Default of Subtenant, Sublandlord may, at any time and from time to time, collect rent and other charges from the assignee or occupant, and apply the net amount collected to the rent and other charges herein reserved, but no such assignment, subletting, occupancy, collection or modification of any provisions of this Sublease shall be deemed a waiver of this covenant, or the acceptance of the assignee or occupant as a Subtenant or a release of Subtenant from the further performance of covenants on the part of Subtenant to be

performed hereunder. Any consent by Sublandlord to a particular subletting or occupancy shall not in any way diminish the prohibition stated in paragraph (a) of this Section 6.1 or the continuing liability of the original named Subtenant. No assignment or subletting hereunder shall relieve Subtenant from its obligations hereunder and Subtenant shall remain fully and primarily liable therefor. No such assignment, subletting, or occupancy shall affect or be contrary to Permitted Uses. Any consent by Sublandlord to a particular assignment, subletting or occupancy shall be revocable, and any assignment, subletting or occupancy shall be void *ab initio*, if the same shall fail to require that such assignee or occupant agree therein to be independently bound by and upon all of the covenants, agreements, terms, provisions and conditions set forth in this Sublease on the part of Subtenant to be kept and performed.

(d) If Sublandlord (and Master Landlord to the extent required under the Master Lease), consents to Subtenant's assignment of this Sublease or further sublease of the Subleased Premises at a rental or for other consideration in excess of the Rent due and payable by Subtenant under this Sublease, then Subtenant shall pay to Sublandlord, as "Additional Rent": (a) on the first day of each month during the term of any such sublease or assignment, fifty percent (50%) of the excess of all rent and other consideration received from the sub-subtenant or assignee for such month over the Rent then payable to Sublandlord pursuant to the provisions of this Sublease for said month (or if only a portion of the Subleased Premises is being sublet, the excess of all rent and other consideration due from the sub-subtenant for such month over the portion of the Rent then payable to Sublandlord pursuant to the provisions of this Sublease for said month), after deducting Subtenant's reasonable, out-of-pocket transaction costs for brokerage commissions, legal fees, tenant improvements, and free rent. Notwithstanding the foregoing, this sharing of profits shall not apply to Permitted Transfers.

ARTICLE VII
RESPONSIBILITY FOR REPAIRS AND CONDITION OF SUBLEASED PREMISES

7.1 SUBTENANT'S AGREEMENT. (a) Subtenant will keep neat and clean and maintain in good order, condition and repair the Subleased Premises and every part thereof, excepting only those repairs for which Sublandlord is responsible under the terms of this Sublease, reasonable wear and tear of the Subleased Premises, and damage by fire or other casualty and as a consequence of the exercise of the power of eminent domain, and shall surrender the Subleased Premises at the end of the Sublease Term in such condition. Without limitation, Subtenant shall continually during the Sublease Term maintain the Subleased Premises in accordance with all laws, codes and ordinances from time to time in effect and all directions, rules and regulations of the proper officers of governmental agencies having jurisdiction, and of the applicable board of fire underwriters, and shall, at Subtenant's own expense, obtain all permits, licenses and the like required by

applicable law for Subtenant's modifications, alterations or additions to the Subleased Premises and to operate its business. To the extent that the Subleased Premises constitute a "Place of Public Accommodation" within the meaning of the Americans With Disabilities Act of 1990, Subtenant shall be responsible, subject to the requirements of Section 5.2, for making the Subleased Premises comply with such Act. However, Subtenant shall not be obligated to make any structural alterations to the Subleased Premises as a result of any change in the law unless compliance shall be required by reason of (i) any new cause or condition related to any alterations or installations made by Subtenant in the Subleased Premises, (ii) Subtenant's particular use of the Subleased Premises (as opposed to general office uses), or (iii) any breach of any of Subtenant's covenants or agreements under the Sublease. In addition, if due to any alteration, addition or improvement made by Subtenant, other portions of the Building or the Property must be altered in order to comply with any legal requirement, Sublandlord may make such alteration at Subtenant's cost. Notwithstanding the foregoing or the provisions of Article XII, to the maximum extent this provision may be enforceable according to law, but subject to any applicable waivers of claims and rights of subrogation contained in this Sublease, Subtenant shall be responsible for the cost of repairs which may be made necessary by reason of damage to the Building caused by any act or neglect of Subtenant, or its contractors or invitees (including any damage by fire or other casualty arising therefrom) and, if the premium or rates payable with respect to any policy or policies of insurance purchased by Sublandlord or Agent with respect to the Building or the Park increases as a result of payment by the insurer of any claim arising from the any act or neglect of Subtenant, or its contractors or invitees, Subtenant shall pay such increase, from time to time, within fifteen (15) days after demand therefor by Sublandlord, as an additional charge.

(b) If repairs are required to be made by Subtenant pursuant to the terms hereof, Sublandlord may demand that Subtenant make the same forthwith, and if Subtenant refuses or neglects to commence such repairs and complete the same with reasonable dispatch, after such demand (except in the case of an emergency, in which event Sublandlord may make such repairs immediately), Sublandlord may (but shall not be required to do so) make or cause such repairs to be made (the provisions of Section 14.18 being applicable to the costs thereof), and shall not be responsible to Subtenant for any loss or damage whatsoever that may accrue to Subtenant's stock or business by reason thereof.

- 7.2 FLOOR LOAD - HEAVY MACHINERY. (a) Subtenant shall not place a load upon any floor in the Subleased Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by law. Sublandlord reserves the right to prescribe the weight and position of all business machines and mechanical equipment, including safes, which shall be placed so as to distribute the weight. Business machines and mechanical equipment shall be placed and maintained by Subtenant at Subtenant's expense in settings sufficient, in Sublandlord's reasonable

judgment, to absorb and prevent vibration, noise and annoyance. Subtenant shall not move any safe, heavy machinery, heavy equipment, freight, bulky matter or fixtures into or out of the Building without Sublandlord's prior consent, which consent may include a requirement to provide insurance, naming Sublandlord as an insured, in such amounts as Sublandlord may deem reasonable.

(b) If any such safe, machinery, equipment, freight, bulky matter or fixtures requires special handling, Subtenant agrees to employ only persons holding a Master Rigger's License to do such work, and that all work in connection therewith shall comply with applicable laws and regulations. Any such moving shall be at the sole risk and hazard of Subtenant, and Subtenant will exonerate, indemnify and save Sublandlord harmless against and from any liability, loss, injury, claim or suit resulting directly or indirectly from such moving.

- 7.3 BUILDING SERVICES. Subtenant shall receive access to all building services as identified and described in Paragraph 7.4 of the Master Lease, the terms of which are incorporated herein by reference.
- 7.4 ELECTRICITY. Subtenant shall be solely responsible for all charges associated with the use of electricity as provided for in Paragraph 7.5 of the Master Lease, the terms of which are incorporated herein by reference. All other terms of said Paragraph 7.5 are incorporated herein such that any rights or obligations of the Sublandlord thereunder are the rights and obligations of the Subtenant hereunder to the maximum logical extent applicable.
- 7.5 UTILITIES, ETC. Except as expressly provided in this Article 7, it is understood and agreed that Subtenant shall make its own arrangements for the installation or provision of all such utilities and that Sublandlord shall be under no obligation to furnish any utilities to the Subleased Premises and shall not be liable for any interruption or failure in the supply of any such utilities to the Subleased Premises. Notwithstanding the forgoing and anything contained in the Sublease or the Master Lease to the contrary, if (i) an interruption or curtailment, suspension or stoppage of an Essential Service (as said term is hereinafter defined) shall occur as a result of repairs to the Building made by Sublandlord or Master Landlord, or the negligence or willful misconduct of Sublandlord or Master Landlord, its agents, contractors, or employees (any such repair, negligence, or willful misconduct, or interruption of an Essential Service being hereinafter referred to as a "Service Interruption"), (ii) it is within the Sublandlord or Master Landlord's reasonable control to remedy such Service Interruption, (iii) such Service Interruption continues for more than three (3) consecutive business days after Sublandlord or Master Landlord shall have received notice thereof from Subtenant, and (iv) as a result of such Service Interruption, the conduct of Subtenant's normal operations in the Subleased Premises are materially and adversely affected, then there shall be an abatement of one

day's prorated Basic Rent for each day during which such Service Interruption continues after such three (3) business day period. If the entire Subleased Premises have not been rendered unusable by the Service Interruption and the Subtenant is able to and does use the remaining usable space of the Subleased Premises, the amount of abatement shall be equitably prorated. For purposes hereof, the term "Essential Services" shall mean the following services, but only to the extent Landlord shall be obligated under the terms and conditions of this Lease to provide the same: water, sewer/septic service, electricity, air conditioning and heating.

ARTICLE VIII
INTENTIONALLY OMITTED

ARTICLE IX
INTENTIONALLY OMITTED

ARTICLE X
INDEMNITY AND INSURANCE

- 10.1 INDEMNITY. (a) Notwithstanding any other provision of this Sublease or the Master Lease to the contrary, to the maximum extent this agreement may be made effective according to law and subject to the waiver of subrogation, Subtenant agrees to indemnify and save harmless Sublandlord from and against all claims, loss, cost, damage or expense of whatever nature arising: (i) from any accident, injury or damage whatsoever to any person, or to the property of any person, occurring in or about the Subleased Premises; (ii) from any accident, injury or damage occurring outside of the Subleased Premises where such accident, damage or injury results or is claimed to have resulted from an act or omission on the part of Subtenant or Subtenant's agents or employees or independent contractors; or (iii) in connection with the conduct or management of the Subleased Premises or of any business therein, or any thing or work whatsoever done, or any condition created (other than by Sublandlord) in or about the Subleased Premises; and, in any case, occurring after the date of this Sublease until the end of the Sublease Term and thereafter so long as Subtenant is in occupancy of any part of the Property. This indemnity and hold harmless agreement shall include indemnity against all losses, costs, damages, expenses and liabilities incurred in or in connection with any such claim or proceeding brought thereon, and the defense thereof, including, without limitation, reasonable attorneys' fees and costs at both the trial and appellate levels.
- (b) Sublandlord shall indemnify Subtenant and hold Subtenant harmless from and against any and all claims, demands, suits, judgments, liabilities, costs and expenses, including reasonable attorneys' fees, arising out of the failure of Sublandlord to perform any covenant, term or condition of this Sublease or of the Master Lease to be performed by Sublandlord hereunder, provided, however, in no event shall Sublandlord ever be liable to Subtenant for consequential damages under this Section 12(b).

(c) The provisions of this Article shall survive the termination of this Sublease with respect to any claims or liability accruing prior to such termination.

10.2 PUBLIC LIABILITY INSURANCE. (a) Subtenant shall obtain and keep in force during the Sublease Term a commercial general liability policy of insurance with coverages acceptable to Sublandlord, in Sublandlord's reasonable discretion, which, by way of example and not limitation, protects Subtenant and Sublandlord (as an additional insured) against claims for bodily injury, personal injury and property damage based upon, involving or arising out of the use, occupancy or maintenance of the Subleased Premises and all areas appurtenant thereto, and under which the insurer agrees to indemnify and hold Sublandlord, Agent and those in privity of estate with Sublandlord, harmless from and against all cost, expense and/or liability arising out of or based upon any and all claims, accidents, injuries and damages set forth in Section 10.1. Such insurance shall be written on an occurrence basis providing coverage in an amount not less than the amounts of the Initial Public Liability Insurance specified in Section 1.3 or such greater amounts as Sublandlord shall from time to time reasonably request, with an "Additional Insured-Managers and Sublandlords of Premises Endorsement" and contain the "Amendment of the Pollution Exclusion" for damage caused by heat, smoke or fumes from a hostile fire. The policy shall not contain any intra-insured exclusions as between insured persons or organizations, but shall include coverage for liability assumed under this Sublease as an "insured contract" for the performance of Subtenant's indemnity obligations under this Sublease.

(b) Subtenant shall, at all times during the term hereof, maintain the following insurance with coverages reasonably acceptable to Sublandlord: (i) workers' compensation insurance as required by applicable law, (ii) employers liability insurance with limits of at least \$1,000,000 per occurrence, (iii) automobile liability insurance for owned, non-owned and hired vehicles with limits of at least \$1,000,000 per occurrence and business interruption and extra expense insurance. In addition to the insurance required in (i), (ii), (iii) and (iv) above, Sublandlord shall have the right to require Subtenant to increase the limits of its insurance and/or obtain such additional insurance as is customarily required by Sublandlords owning similar real property in the geographical area of the Property.

10.3 SUBTENANT'S RISK. Subtenant agrees to use and occupy the Subleased Premises and to use such other portions of the Property as Subtenant is herein given the right to use at Subtenant's own risk. To the maximum extent this agreement may be made effective according to law, Sublandlord shall have no responsibility or liability for any loss of or damage to Subtenant's Removable Property. Subtenant shall obtain and keep in force during the Sublease Term "All Risk" extended coverage property insurance with coverages acceptable to Sublandlord, in Sublandlord's reasonable discretion. Said insurance shall be written on a one hundred percent (100%) replacement cost basis on

Subtenant's personal property, all Subtenant improvements installed at the Subleased Premises by Sublandlord or Subtenant, Subtenant's trade fixtures and other property. By way of example, and not limitation, such policies shall provide protection against All Risk Insurance' including vandalism and malicious mischief, theft and sprinkler leakage, Earthquake and Flood, if the Park is in Flood Zone A or V. Subtenant's policy shall include endorsements to insure Subtenant against losses to valuable papers, records and computer equipment and to compensate Subtenant for the cost of recovering lost data. To the extent that Subtenant's policy covers Subtenant improvements to the Subleased Premises, Sublandlord, and if applicable any lender or mortgagee of the Sublandlord shall be a loss payee on such policy. The provisions of this Section 10.3 shall be applicable from and after the execution of this Sublease and until the end of the Sublease Term, and during such further period as Subtenant may use or be in occupancy of any part of the Subleased Premises or of the Building.

- 10.4 CERTIFICATES, CANCELLATION, ETC. Subtenant shall deliver to Sublandlord certificates of the insurance policies required above concurrently with Subtenant's execution of this Sublease using Evidence of Property Insurance, ACORD 28 and Commercial General Liability Acord 25. Subtenant's insurance policies shall not be cancelable or subject to reduction of coverage or other modification except after thirty (30) days prior written notice to Sublandlord. Subtenant shall, at least thirty (30) days prior to the expiration of such policies, furnish Sublandlord with renewals thereof. Subtenant's insurance policies shall be issued by insurance companies authorized to do business in the state in which the Property is located, and said companies shall maintain during the policy term a "General Policyholder's Rating" of at least A and a financial rating of at least "Class X" (or such other rating as may be required by any lender having a lien on the Park) as set forth in the most recent edition of "Best Insurance Reports." All insurance obtained by Subtenant shall be primary to and not contributory with any similar insurance carried by Sublandlord, whose insurance shall be considered excess insurance only. Sublandlord, Sublandlord's property manager and lender(s) and their respective officers, shareholders, directors, partners, members, managers, employees, successors and assigns, shall be included as additional insureds under Subtenant's commercial general liability policy, the pollution liability policy and under the Subtenant's excess or umbrella policy, if any, using ISO additional insured endorsement CG 20 24. Subtenant's insurance policies shall not include deductibles in excess of \$5,000. Sublandlord makes no representation to Subtenant that the limits or forms of coverage specified above or approved by Sublandlord are adequate to insure Subtenant's property or Subtenant's obligations under this Sublease, and the limits of and insurance carried by Subtenant shall not limit Subtenant's obligations or liability under any indemnity provision included in this Sublease or under any other provision of this Sublease.
- 10.5 INJURY CAUSED BY THIRD PARTIES. To the maximum extent this agreement may be made effective according to law, Subtenant agrees that Sublandlord shall not be responsible or liable to Subtenant, or to those claiming by, through or under Subtenant, for any loss or damage that may be occasioned by or through the acts or omissions of persons occupying adjoining premises or any part of the premises adjacent to or connecting with the Subleased Premises or any part of the Property or otherwise.

ARTICLE XI
ACCESS TO SUBLEASED PREMISES

- 11.1 Landlord, as defined in the Master Lease, shall have the right to enter the Subleased Premises at all reasonable hours for the purpose of inspecting or making repairs to the same, and Landlord shall also have the right to make access available at all reasonable hours to prospective or existing mortgages, purchasers or tenants of any part of the Building or the Park.

ARTICLE XII
FIRE, EMINENT DOMAIN, ETC.

- 12.1 All rights, obligations, duties, and requirements of Article 12 of the Master Lease which are applicable to the Sublandlord therein are hereby applicable to the Subtenant herein.

ARTICLE XIII
DEFAULT

- 13.1 SUBTENANT'S DEFAULT. (a) If at any time subsequent to the date of this Sublease any one or more of the following events (herein referred to as a "Default of Subtenant") shall happen:

(i) Subtenant shall fail to pay the Basic Rent, Escalation Charges or additional charges hereunder when due and such failure shall continue for five (5) full Business Days after notice to Subtenant from Sublandlord ("Monetary Default"); or

(ii) Subtenant shall neglect or fail to perform or observe any other covenant herein contained on Subtenant's part to be performed or observed and Subtenant shall fail to remedy the same within thirty (30) days after notice to Subtenant specifying such neglect or failure, or if such failure is of such a nature that Subtenant cannot reasonably remedy the same within such thirty (30) day period, Subtenant shall fail to commence promptly to remedy the same and to prosecute such remedy to completion with diligence and continuity; or

(iii) Subtenant's leasehold interest in the Subleased Premises shall be taken on execution or by other process of law directed against Subtenant; or

(iv) Subtenant shall make an assignment for the benefit of creditors or shall be adjudicated insolvent, or shall file any petition or answer seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief for itself under any present or future Federal, State or other statute, law or regulation for the relief of debtors (other than the Bankruptcy Code, as hereinafter defined), or shall seek or consent to or acquiesce in the appointment of any trustee, receiver or liquidator of Subtenant or of all or any substantial part of its properties, or shall admit in writing its inability to pay its debts generally as they become due; or

(v) An Event of Bankruptcy (as hereinafter defined) shall occur with respect to Subtenant; or

(vi) A petition shall be filed against Subtenant under any law (other than the Bankruptcy Code) seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution, or similar relief under any present or future Federal, State or other statute, law or regulation and shall remain undismissed or unstayed for an aggregate of sixty (60) days (whether or not consecutive), or if any trustee, conservator, receiver or liquidator of Subtenant or of all or any substantial part of its properties shall be appointed without the consent or acquiescence of Subtenant and such appointment shall remain unvacated or unstayed for an aggregate of sixty (60) days (whether or not consecutive); or

(vii) Subtenant's failure to perform timely and subject to any cure periods any other material provision of this Sublease or the Master Lease as incorporated herein.

(c) For purposes of clause (a)(v) above, an "Event of Bankruptcy" means the filing of a voluntary petition by Subtenant, or the entry of an order for relief against Subtenant, under Chapter 7, 11, or 13 of the Bankruptcy Code, and the term "Bankruptcy Code" means 11 U.S.C. Sec. 101, et seq. If an Event of Bankruptcy occurs, then the trustee of Subtenant's bankruptcy estate or Subtenant as debtor-in-possession may (subject to final approval of the court) assume this Sublease, and may subsequently assign it, only if it does the following within 60 days after the date of the filing of the voluntary petition, the entry of the order for relief (or such additional time as a court of competent jurisdiction may grant, for cause, upon a motion made within the original 60-day period):

(i) file a motion to assume the Sublease with the appropriate court;

(ii) satisfy all of the following conditions, which Sublandlord and Subtenant acknowledge to be commercially reasonable:

(A) cure all Defaults of Subtenant under this Sublease or provide Sublandlord with Adequate Assurance (as defined below) that it will (x) cure all monetary Defaults of Subtenant hereunder within 10 days from the date of the assumption; and (y) cure all nonmonetary Defaults of Subtenant hereunder within 30 days from the date of the assumption;

(B) compensate Sublandlord and any other person or entity, or provide Sublandlord with Adequate Assurance that within 10 days after the date of the assumption, it will compensate Sublandlord and such other person or entity, for any pecuniary loss that Sublandlord and such other person or entity incurred as a result of any Default of Subtenant, the trustee, or the debtor-in-possession;

(C) provide Sublandlord with Adequate Assurance of Future Performance (as defined below) of all of Subtenant's obligations under this Sublease; and

(D) deliver to Sublandlord a written statement that the conditions herein have been satisfied.

(d) For purposes only of the foregoing paragraph (b), and in addition to any other requirements under the Bankruptcy Code, any future federal bankruptcy law and applicable case law, "Adequate Assurance" means at least meeting the following conditions, which Sublandlord and Subtenant acknowledge to be commercially reasonable:

(i) entering an order segregating sufficient cash to pay Sublandlord and any other person or entity under paragraph (b) above, and

(ii) granting to Sublandlord a valid first lien and security interest (in form acceptable to Sublandlord) in all property comprising the Subtenant's "property of the estate," as that term is defined in Section 541 of the Bankruptcy Code, which lien and security interest secures the trustee's or debtor-in-possession's obligation to cure the monetary and nonmonetary defaults under the Sublease within the periods set forth in paragraph (b) above;

(e) For purposes only of paragraph (b), and in addition to any other requirements under the Bankruptcy Code, any future federal bankruptcy law and applicable case law, "Adequate Assurance of Future Performance" means at least meeting the following conditions, which Sublandlord and Subtenant acknowledge to be commercially reasonable:

(i) the trustee or debtor-in-possession depositing with Sublandlord, as security for the timely payment of rent and other monetary obligations, an amount equal to the sum of two (2) months' Basic Rent plus an amount equal to two (2) months' installments on account of Operating Expenses and Taxes, computed in accordance with Articles 8 and 9.,

(ii) the trustee or the debtor-in-possession agreeing to pay in advance, on each day that the Basic Rent is payable, the monthly installments on account of Operating Expenses and Taxes, computed in accordance with Articles 8 and 9 hereof;

(iii) the trustee or debtor-in-possession providing adequate assurance of the source of the rent and other consideration due under this Sublease;

(iv) Subtenant's bankruptcy estate and the trustee or debtor-in-possession providing Adequate Assurance that the bankruptcy estate (and any successor after the conclusion of the Subtenant's bankruptcy proceedings) will continue to have sufficient unencumbered assets after the payment of all secured obligations and administrative expenses to assure Sublandlord that the bankruptcy estate (and any successor after the conclusion of the Subtenant's bankruptcy proceedings) will have sufficient funds to fulfill Subtenant's obligations hereunder; and

(f) If the trustee or the debtor-in-possession assumes the Sublease under paragraph (b) above and applicable bankruptcy law, it may assign its interest in this Sublease only if the proposed assignee first provides Sublandlord with Adequate Assurance of Future Performance of all of Subtenant's obligations under the Sublease, and if Sublandlord determines, in the exercise of its reasonable business judgment, that the assignment of this Sublease will not breach any other Sublease, or any mortgage, financing agreement, or other agreement relating to the Building or the Park by which Sublandlord or the Building or the Park is then bound (and Sublandlord shall not be required to obtain consents or waivers from any third party required under any Sublease, mortgage, financing agreement, or other such agreement by which Sublandlord is then bound).

(g) For purposes only of paragraph (e) above, and in addition to any other requirements under the Bankruptcy Code, any future federal bankruptcy law and applicable case law, "Adequate Assurance of Future Performance" means at least the satisfaction of the following conditions, which Sublandlord and Subtenant acknowledge to be commercially reasonable:

(i) the proposed assignee submitting a current financial statement, audited by a certified public accountant, that allows a net worth and working capital in amounts determined in the reasonable business judgment of Sublandlord to be sufficient to assure the future performance by the assignee of Subtenant's obligation under this Sublease; and

(ii) if requested by Sublandlord in the exercise of its reasonable business judgment, the proposed assignee obtaining a guarantee (in form and substance satisfactory to Sublandlord) from one or more persons who satisfy Sublandlord's standards of credit worthiness;

- 13.2 SUBLANDLORD'S REMEDIES. Sublandlord shall have, on account of any Default by Subtenant, all of the rights and remedies set forth in the Master Lease as if Sublandlord is Master Landlord. These remedies are not exclusive; they are cumulative and in addition to any remedies now or later allowed by law.
- 13.3 SUBLANDLORD'S DEFAULT. Sublandlord shall in no event be in default in the performance of any of Sublandlord's obligations hereunder unless and until Sublandlord shall have failed to perform such obligations within thirty (30) days, or such additional time as is reasonably required to correct any such default, after written notice by Subtenant to Sublandlord specifying wherein Sublandlord has failed to perform any such obligations.

ARTICLE XIV
MISCELLANEOUS PROVISIONS

- 14.1 EXTRA HAZARDOUS USE. Subtenant covenants and agrees that Subtenant will not do or permit anything to be done in or upon the Subleased Premises, or bring in anything or keep anything therein, which shall increase the rate of property or liability insurance on the Subleased Premises, the Unit or the Park above the standard rate applicable to Subleased Premises being occupied for Permitted Uses; and Subtenant further agrees that, in the event that Subtenant shall do any of the foregoing, Subtenant will promptly pay to Sublandlord, on demand, any such increase resulting therefrom, which shall be due and payable as an additional charge hereunder.
- 14.2 WAIVER. (a) Failure on the part of Sublandlord to complain of any action or non-action on the part of Subtenant, no matter how long the same may continue, shall never be a waiver by Sublandlord of any of its rights hereunder. Further, no waiver at any time of any of the provisions hereof by Sublandlord shall be construed as a waiver of any of the other provisions hereof, and a waiver at any time of any of the provisions hereof shall not be construed as a waiver at any subsequent time of the same provisions. The consent or approval of Sublandlord to or of any action by Subtenant requiring such consent or approval shall not be construed to waive or render unnecessary Sublandlord's consent or approval to or of any subsequent similar act by Subtenant.

(b) No payment by Subtenant, or acceptance by Sublandlord, of a lesser amount than shall be due from Subtenant to Sublandlord shall be treated otherwise than as a payment on account of the earliest installment of any payment due from Subtenant under the provisions hereof. The acceptance by Sublandlord of a check for a lesser amount with an endorsement or statement thereon, or upon any letter accompanying such check, that such lesser amount is payment in full, shall be given no effect, and Sublandlord may accept such check (whether or not with knowledge of any breach by Subtenant) without prejudice to any other rights or remedies which Sublandlord may have against Subtenant.

14.3 COVENANT OF QUIET ENJOYMENT. Subtenant, subject to the terms and provisions of this Sublease, on payment of the Basic Rent and Escalation Charges and observing, keeping and performing all of the other terms and provisions of this Sublease on Subtenant's part to be observed, kept and performed, shall lawfully, peaceably and quietly have, hold, occupy and enjoy the Subleased Premises during the term hereof, without hindrance or ejection by any persons lawfully claiming under Sublandlord to have title to the Subleased Premises superior to Subtenant; the foregoing covenant of quiet enjoyment is in lieu of any other covenant, express or implied.

14.4 SUBLANDLORD'S LIABILITY.

(a) In no event shall Sublandlord ever be liable to Subtenant for any loss of business or any other indirect, punitive or consequential damages suffered or claimed by Subtenant from whatever cause.

(b) Where provision is made in this Sublease for Sublandlord's consent and Subtenant shall request such consent and Sublandlord shall fail or refuse to give such consent, Subtenant shall not be entitled to any damages for any withholding by Sublandlord of its consent, it being intended that Subtenant's sole remedy shall be an action for specific performance or injunction, and that such remedy shall be available only in those cases where Sublandlord has expressly agreed in writing not to unreasonably withhold its consent. Any claim, demand, right or defense by Subtenant that arises out of this Sublease or the negotiations which preceded this Sublease shall be barred unless Subtenant commences an action thereon, or interposes a defense by reason thereof, within six (6) months after the date of the inaction, omission, event or action that gave rise to such claim, demand, right or defense.

(c) With respect to any repairs or restoration which are required or permitted to be made by Sublandlord, the same may be made during normal business hours and Sublandlord shall have no liability for damages to Subtenant for inconvenience, annoyance or interruption of business arising therefrom. In the course of any such activity, Sublandlord agrees to use commercially reasonable efforts not to unreasonably interfere with Subtenant's business operations in the Subleased Premises.

(d) In no event shall Subtenant have the right to terminate this Sublease as a result of Sublandlord's default under or breach of this Sublease, and Subtenant's remedies shall be limited to damages and/or an injunction as expressly set forth above. This Sublease and the obligations of Subtenant hereunder shall not be affected or impaired because Sublandlord is unable to fulfill any of its obligations hereunder or is delayed in doing so, if such inability or delay is caused by reason of a Force Majeure event, and the time for Sublandlord's performance shall be extended for the period of any such delay. Each provision of this Sublease constitutes an independent covenant, enforceable separately from each other covenant hereof. To the extent any provision hereof or any application of any provision hereof may be declared unenforceable, such provision or application shall not affect any other provision hereof or other application of such provision. Subtenant acknowledges and agrees that Subtenant's obligation to pay Basic Rent and Escalation Charges is independent of any and all obligations of Sublandlord hereunder.

14.5 ASSIGNMENT OF RENTS AND TRANSFER OF TITLE. (a) With reference to any assignment by Sublandlord of Sublandlord's interest in this Sublease, or the rents payable hereunder, conditional in nature or otherwise, which assignment is made to the holder of a mortgage on property which includes the Subleased Premises, Subtenant agrees that the execution thereof by Sublandlord, and the acceptance thereof by the holder of such mortgage shall never be treated as an assumption by such holder of any of the obligations of Sublandlord hereunder unless such holder shall, by notice sent to Subtenant, specifically otherwise elect and that, except as aforesaid, such holder shall be treated as having assumed Sublandlord's obligations hereunder only upon foreclosure of such holder's mortgage and the taking of possession of the Subleased Premises.

(b) In no event shall the acquisition of Sublandlord's interest in the Building or the Park by a purchaser which, simultaneously therewith, leases Sublandlord's entire interest in the Building or the Park (as the case may be) back to the seller thereof be treated as an assumption by operation of law or otherwise, of Sublandlord's obligations hereunder, but Subtenant shall look solely to such seller-lessee, and its successors from time to time in title, for performance of Sublandlord's obligations hereunder. In any such event, this Sublease shall be subject and subordinate to the Sublease to such purchaser. For all purposes, such seller-lessee, and its successors in title, shall be the Sublandlord hereunder unless and until Sublandlord's position shall have been assumed by such purchaser-lessor.

- (c) Except as provided in paragraph (b) of this Section, in the event of any transfer of title to the Building by Sublandlord, Sublandlord shall thereafter be entirely freed and relieved from the performance and observance of all covenants and obligations hereunder.
- 14.6 RULES AND REGULATIONS. Subtenant shall abide by rules and regulations set forth in Exhibit D as attached to the Master Lease and incorporated herein by reference.
- 14.7 ADDITIONAL CHARGES. If Subtenant shall fail to pay when due any sums under this Sublease designated as an Escalation Charge, additional rent or additional charge, Sublandlord shall have the same rights and remedies as Sublandlord has hereunder for failure to pay Basic Rent.
- 14.8 INVALIDITY OF PARTICULAR PROVISIONS. If any term or provision of this Sublease, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Sublease, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Sublease shall be valid and be enforced to the fullest extent permitted by law.
- 14.9 PROVISIONS BINDING, ETC. Except as herein otherwise provided, the terms hereof shall be binding upon and shall inure to the benefit of the successors and assigns, respectively, of Sublandlord and Subtenant (except in the case of Subtenant, only such assigns as may be permitted hereunder) and, if Subtenant shall be an individual, upon and to his heirs, executors, administrators, successors and permitted assigns. Each term and each provision of this Sublease to be performed by Subtenant shall be construed to be both a covenant and a condition. The reference contained to successors and assigns of Subtenant is not intended to constitute a consent to assignment by Subtenant, but has reference only to those instances in which Sublandlord may later give consent to a particular assignment as required by those provisions of Article VI hereof.
- 14.10 RECORDING. Subtenant agrees not to record this Sublease, but, if the Sublease Term (including any extended term) is seven (7) years or longer, each party hereto agrees, on the request of the other, to execute a so-called notice of Sublease in recordable form and complying with applicable law and reasonably satisfactory to Sublandlord's attorneys. In no event shall such document set forth the rent or other charges payable by Subtenant under this Sublease; and any such document shall expressly state that it is executed pursuant to the provisions contained in this Sublease, and is not intended to vary the terms and conditions of this Sublease.
- 14.11 NOTICES. Whenever, by the terms of this Sublease, notices shall or may be given either to Sublandlord or to Subtenant, such notice shall be in writing and shall be delivered by hand (with a receipt), or sent by certified mail, postage prepaid, return receipt requested, or by reputable overnight or express delivery service for next Business Day delivery to each of the respective parties at the addresses first specified and identified herein.

- 14.12 WHEN SUBLEASE BECOMES BINDING; COUNTERPART. (a) The mailing, delivery or negotiation of this Sublease shall not be deemed an offer by Sublandlord to enter into any transaction or to enter into any relationship with Subtenant, whether on the terms contained herein or on any other terms. This Sublease shall not be binding upon Sublandlord or Subtenant, nor shall Sublandlord nor Subtenant have any obligations or liabilities with respect thereto, or with respect to the Subleased Premises, unless and until Sublandlord and Subtenant executes and delivers this Sublease and any and all conditions subsequent identified herein have been fully satisfied. Until occurrence of the foregoing, Sublandlord or Subtenant may terminate all negotiation and discussion of the subject matter hereof, without causes and for any reason, without recourse or liability. All negotiations, considerations, representations and understandings between Sublandlord and Subtenant are incorporated herein and this Sublease expressly supersedes any proposals or other written documents relating hereto. This Sublease may be modified or altered only by written agreement between Sublandlord and Subtenant, and no act or omission of any employee or agent of Sublandlord shall alter, change or modify any of the provisions hereof.
- (b) This Sublease may be executed in one or more counterparts, and by different parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties acknowledge and agree that this Sublease may be executed via facsimile or .pdf format (including computer-scanned or other electronic reproduction of the actual signatures) and that delivery of a facsimile or other signature by electronic or physical means shall be effective to the same extent as delivery of an original signature. Notwithstanding the foregoing, originally signed documents shall be provided upon either party's request.
- 14.13 PARAGRAPH HEADINGS. The paragraph headings throughout this instrument are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Sublease. The provisions of this Sublease shall be construed as a whole, according to their common meaning (except where the intent to have a precise legal interpretation applied is clearly evidenced), and not for or against either party. Use in this Sublease of the words "including," "such as" or words of similar import, when followed by any general term, statement or matter, shall not be construed to limit such term, statement or matter to the specified item(s), whether or not language of non-limitation, such as "without limitation" or "including, but not limited to," or words of similar import, are used with reference thereto, but rather shall be deemed to refer to all other terms or matters that could fall within a reasonably broad scope of such term, statement or matter.

- 14.14 RIGHTS OF MORTGAGEE OR GROUND LESSOR. This Sublease shall be subordinate to any mortgage from time to time encumbering the Subleased Premises, whether executed and delivered prior to or subsequent to the date of this Sublease, if the holder of such mortgage shall so elect.
- 14.15 SECURITY DEPOSIT. Subtenant shall deliver to Sublandlord at the time of execution of this Sublease by Subtenant the security deposit set forth in Section 1.2, as security for Subtenant's faithful performance of Subtenant's obligations hereunder. If Subtenant fails to pay Basic Rent, Additional Rent or other charges due hereunder or otherwise defaults with respect to any provision of this Sublease, Sublandlord may (but shall have no obligation to) use all or any portion of said deposit for the payment of any Basic Rent or other charge due hereunder to pay any other sum to which Sublandlord may become obligated by reason of Subtenant's default or to compensate Sublandlord for any loss or damage which Sublandlord may suffer thereby. If Sublandlord so uses or applies all or any portion of said deposit, Subtenant shall within ten (10) business days after written demand therefor deposit cash with Sublandlord in an amount sufficient to restore said deposit to its full amount. Sublandlord shall not be required to keep said Security Deposit separate from its general accounts. If Subtenant performs all of Subtenant's obligations hereunder, said Security Deposit, or so much thereof as shall not then have been applied by Sublandlord, shall be returned, without payment of interest or other amount for its use, to Subtenant (or, at Sublandlord's option, to the last assignee, if any, of Subtenant's interest hereunder) within fifteen (15) days after the expiration or earlier termination of the Sublease Term, and after Subtenant has vacated and delivered the Subleased Premises as required hereunder. No trust relationship is created herein between Sublandlord and Subtenant with respect to said Security Deposit. Subtenant acknowledges that the Security Deposit is not an advance payment of any kind or a measure of or limit on Sublandlord's damages in the event of Subtenant's default. Any application of the Security Deposit by Sublandlord shall be without prejudice to any other right or remedy.
- 14.16 REMEDYING DEFAULTS. Sublandlord shall have the right, but shall not be required, to pay such sums or do any act which requires the expenditure of monies which may be necessary or appropriate by reason of the failure or neglect of Subtenant to perform any of the provisions of this Sublease, and in the event of the exercise of such right by Sublandlord, Subtenant agrees to pay to Sublandlord forthwith upon demand all such sums, together with interest thereon at a rate equal to 3% over the base rate in effect from time to time at Bank of America, as an additional charge. Any payment of Basic Rent, Escalation Charges or other sums payable hereunder not paid when due shall, at the option of Sublandlord, bear interest at a rate equal to 3% over the base rate in effect from time to time at Bank of America from the due date thereof and shall be payable forthwith on demand by Sublandlord, as an additional charge.

- 14.17 **HOLDING OVER.** Any holding over by Subtenant after the expiration of the Sublease Term shall be treated as a daily tenancy at sufferance at a rate equal to one and on half (1.5) times the Basic Rent then in effect plus Escalation Charges and other charges herein provided (prorated on a daily basis). Nothing contained herein shall be construed to constitute Sublandlord's consent to Subtenant holding over at the expiration or earlier termination of the Sublease Term. Subtenant hereby agrees to indemnify, hold harmless and defend Sublandlord from any cost, loss, claim or liability (including without limitation attorneys' fees) Sublandlord may incur (including without limitation lost rents or income from other Subtenants) as a result of Subtenant's failure to surrender possession of the Subleased Premises to Sublandlord upon the termination of this Sublease. Otherwise, such holding over shall be on the terms and conditions set forth in this Sublease as far as applicable. Provided that if Subtenant holds over at the expiration of the Sublease Term, Subtenant shall indemnify and hold harmless Sublandlord as to any liability, costs, or fees incurred by virtue of the Master Lease associated with Subtenant's failure to timely vacate.
- 14.18 **WAIVER OF CLAIMS AND SUBROGATION.** Sublandlord and Subtenant: (i) mutually agree that, with respect to any damage to property, the loss from which is covered (or required to be covered) by insurance then being carried by them, respectively, the one carrying (or required to carry) such insurance and suffering such loss releases the other of and from, and forever waives, any and all claims with respect to such loss, but only to the extent of the limits of insurance carried (or required to be carried) with respect thereto; and (ii) mutually agree that any property damage insurance carried (or required to be carried) by either shall provide for the waiver by the insurance carrier of any right of subrogation against the other.
- 14.19 **PARKING.** During the Sublease Term, and subject to the Rules, Subtenant shall be entitled to use the number of parking spaces set forth in Section 1.1 in the parking facility of the Building, without additional rental or use charges. If Subtenant commits or allows in the parking facility any of the activities prohibited by the Sublease or the Rules, then Sublandlord shall have the right, without notice, in addition to such other rights and remedies that it may have, to remove or tow away the vehicle involved and charge the cost to Subtenant, which cost shall be immediately payable by Subtenant upon demand by Sublandlord.
- 14.20 **SURRENDER OF SUBLEASED PREMISES.** Upon the expiration or earlier termination of the Sublease Term, Subtenant shall peaceably quit and surrender to Sublandlord the Subleased Premises in neat and clean condition and in good order, condition and repair, together with all alterations, additions and improvements which may have been made or installed in, on or to the Subleased Premises during the Sublease Term, excepting only ordinary wear and use and damage by fire or other casualty for which, under other provisions of this Sublease, Subtenant has no responsibility of repair or restoration. Subtenant shall remove all of Subtenant's Removable Property and, to the extent specified by Sublandlord, all alterations and additions made by Subtenant and all

partitions wholly within the Subleased Premises unless installed initially by Sublandlord in preparing the Subleased Premises for Subtenant's occupancy; and shall repair any damages to the Subleased Premises or the Building caused by such removal. Any Subtenant's Removable Property which shall remain in the Building or on the Subleased Premises after the expiration or termination of the Sublease Term shall be deemed conclusively to have been abandoned, and either may be retained by Sublandlord as its property or may be disposed of in such manner as Sublandlord may see fit, at Subtenant's sole cost and expense.

- 14.21 **FURNITURE.** During the Sublease Term, Subtenant may use, at no additional charge, the furniture located in the Subleased Premises and listed on Exhibit C (the "**Furniture**"). Subtenant shall use the Furniture only for the purposes for which such Furniture is intended and shall be responsible for the proper maintenance, care, and repair of the Furniture, at Subtenant's sole cost and expense. Subtenant shall not reconfigure or alter the Furniture without the prior written consent of the Sublandlord. Upon the expiration or earlier termination of this Sublease, Subtenant shall surrender the Furniture to Sublandlord in as good condition as it was first received by Subtenant, ordinary wear and tear excepted. The Furniture will be provided by Sublandlord in its "AS IS" condition, with all faults and defects, and Subtenant shall take possession of and use such Furniture at Subtenant's sole risk and in compliance with all applicable laws. No representations or warranties whatsoever as to the Furniture's condition or fitness for a particular purpose, express or implied, are made by Sublandlord.
- 14.22 **GOVERNING LAW.** This Sublease shall be governed exclusively by the provisions hereof and by the laws of the Commonwealth of Massachusetts, as the same may from time to time exist.
- 14.23 **ANTI-TERRORISM PROVISIONS.** (a) Subtenant represents, warrants and covenants to Sublandlord that (i) neither Subtenant nor any of its partners, members, principal stockholders or any other constituent entity either in control of the operation or management of Subtenant or having a controlling financial interest in Subtenant has been or will be designated or named as a terrorist, a "Specially Designated and Blocked Person," or other banned or blocked person, entity, nation or transaction pursuant to any law, order, rule or regulation that is enforced or administered by the Office of Foreign Assets Control or on the most current list published by the U.S. Treasury Department Office of Foreign Assets Control at its official website, <http://www.treas.gov/ofac/tl1> or at any replacement website or other replacement official publication of such list (such list, or any such replacement official publication of such list, the "**OFAC List**"), or by any Executive Order or the United States Treasury Department; and (ii) Subtenant has not engaged, and will not engage, in this transaction, directly or indirectly, on behalf of, or instigating or facilitating, and will not instigate or facilitate, this transaction, directly or indirectly, on behalf of, any such person, group, entity or nation. A breach of any Subtenant representation, warranty and covenant contained in this Section shall be an

immediate and material Default of Subtenant under this Sublease without notice or cure rights. Subtenant hereby agrees to defend, indemnify and hold harmless Sublandlord from and against any and all claims, damages, losses, risks, liabilities and expenses (including reasonable attorneys' fees and costs) arising from or related to Subtenant's breach of any of the foregoing representations, warranties and/or covenants.

(b) Sublandlord represents, warrants and covenants to that (i) neither Sublandlord nor any of its general partners or any other constituent entity in control of the operation or management of Sublandlord has been designated or named as a terrorist, a "Specially Designated and Blocked Person," or other banned or blocked person, entity, nation or transaction pursuant to any such law, order, rule or regulation or on the most current OFAC List, or by any Executive Order or the United States Treasury Department; and (ii) Sublandlord has not engaged, and will not engage, in this transaction, directly or indirectly, on behalf of, or instigating or facilitating, and will not instigate or facilitate, this transaction, directly or indirectly, on behalf of, any such person, group, entity or nation.

- 14.24 CONDOMINIUM CREATION. Subtenant agrees and acknowledges that the Building and the Subleased Premises are part of the Totten Pond Office Park Condominium as the same has been established by Master Deed dated December 7, 2006 and recorded with the Middlesex South County Registry of Deeds (the "Registry") in Book 48627, Page 337, as amended by a Designation of Limited Common Elements dated January 18, 2011 and recorded with the Registry in Book 56471, Page 445 (as amended, the "Master Deed"), and Declaration of Trust dated December 7, 2006 (the "Trust" together with the Master Deed are collectively referred to as the "Condominium Documents") and recorded with the Registry in Book 48627, Page 361, pursuant to Chapter 183A of the Massachusetts General Laws (the "Condominium Act"). Subtenant agrees and acknowledges that the Building and Subleased Premises shall be subject to the Condominium Documents and Condominium Act. The Condominium Documents shall take priority over this Sublease and this Sublease shall automatically be subordinate to the Condominium Documents without the need for recording of any additional document. The Sublandlord reserves to itself solely and exclusively all the rights of a Unit owner with respect to the Building or the Subleased Premises, including the right to vote and participate in the governance of the condominium as a Unit owner, trustee or declarant under the Master Deed. In the event any Operating Expenses are converted to common charges assessed or levied against the Building as part of the Condominium, Subtenant's percentage of increases in Operating Expenses under this Sublease shall be deemed to include a proportionate amount of such common charges to the extent such expense would otherwise be an includable Operating Expenses under Section 9.1 if it had not been converted to common charges.
- 14.25 CHANGES OR ALTERATIONS BY LANDLORD. All rights and obligations under Paragraph 14.28 of the Master Lease are incorporated herein by reference.

- 14.26 POST-TERMINATION OBLIGATIONS. The expiration or termination of this Sublease shall not relieve Subtenant of its obligations hereunder which by their terms or nature Subtenant is to perform after such expiration or termination, including without limitation the obligation to pay any Rent accrued with respect to the Term, and any indemnity given hereunder as to events, occurrences and conditions happening prior to such expiration or termination, all of which shall continue and remain in full force and effect for so long as allowed by applicable statutes of limitation or other applicable law.
- 14.27 NO PRESUMPTION AGAINST DRAFTER. Sublandlord and Subtenant understand, agree and acknowledge that this Sublease has been freely negotiated by both parties and that, in any controversy, dispute or contest over the meaning, interpretation, validity or enforceability of this Sublease or any of its terms or conditions, there shall be no influence, presumption or conclusion whatsoever drawn for or against either party by virtue of that party having drafted this Sublease or any portion thereof.

IN WITNESS WHEREOF, Sublandlord and Subtenant have caused this Sublease to be duly executed, under seal, by persons hereunto duly authorized, in multiple copies, each to be considered an original hereof, as of the date first set forth above.

Sublandlord:

Subtenant

By: /s/ Sam Lofland
Its: General Counsel

/s/ Adam Houghton
By: Adam Houghton
Its: Chief Business Officer,
Upstream Bio
Date: December 15, 2021

Date: December 28, 2021

EXHIBIT A

MASTER LEASE

(Attached)

31

LEASE

**UNIT NO. 3 OF THE TOTTEN POND OFFICE PARK CONDOMINIUM,
460 TOTTEN POND ROAD, WALTHAM, MASSACHUSETTS**

THIS INSTRUMENT IS A LEASE, dated as of August 31, 2017 in which the Landlord and the Tenant are the parties hereinafter named, and which relates to space in Unit No. 3 of the Totten Pond Office Park Condominium, 460 Totten Pond Road, Waltham, Massachusetts (the "Building" or the "Unit"). The parties to this instrument hereby agree with each other as follows:

ARTICLE I

BASIC LEASE PROVISIONS

1.1 INTRODUCTION. The following set forth basic data and, where appropriate, constitute definitions of the terms hereinafter listed.

1.2 BASIC DATA.

Landlord: The Realty Associates Fund X L.P., a Delaware limited partnership.

Landlord's Original Address: c/o TA Associates Realty, 28 State Street, Boston, MA 02109.

Tenant: Imaging Endpoints II, LLC, an Arizona limited liability company.

Tenant's Original Address: 9700 N. 91st St., Scottsdale, AZ 85258

Guarantors: None.

Basic Rent: Subject to the provisions of Section 3.1, Tenant shall pay Basic Rent at the rates hereafter set forth:

<u>Lease Year</u>	<u>Rent/SF/Annum</u>	<u>Annual Basic Rent</u>
1	\$ 28.50	\$ 97,042.50
2	\$ 29.50	\$ 100,447.50
3	\$ 30.50	\$ 103,852.50

Premises Rentable Area: Agreed to be 3,405 square feet located on the fourth floor of the Building.

Permitted Uses: General business and professional offices, and for no other uses.

Escalation Factor: 2.524%, as computed in accordance with the Escalation Factor Computation.

Construction Completion Date: As defined in Section 4.2(d).

Initial Term: The period of approximately three (3) years commencing on the Commencement Date and expiring at 11:59 p.m., Boston time, on the day immediately preceding the third (3rd) anniversary of the Rent Commencement Date, except that if the Rent Commencement Date shall be other than the first day of a calendar month, the expiration of the Initial Term shall be on the last day of the calendar month on which such anniversary shall fall.

Security Deposit: \$25,111.88, subject to the provisions of Section 14.17.

Parking Spaces: Eleven (11) spaces (computed at 3.3 spaces per 1,000 square feet of Premises Rentable Area), on an unreserved, first come, first served basis (subject to Section 14.21).

Rent Commencement Date: The thirty-first (31st) day following the Commencement Date.

1.3 ADDITIONAL DEFINITIONS.

Agent: CB Richard Ellis/New England, 100 Cambridge Street, Boston, MA, or such other party as Landlord may from time to time designate.

Base Operating Expenses: The Operating Expenses for the year ending December 31, 2018.

Base Taxes: The real estate taxes for the fiscal year ending June 30, 2018, as they may be reduced by the amount of any abatement.

Broker: Transwestern/ RBJ.

Building Rentable Area: Agreed to be 141,981 square feet.

Business Days: All days except Saturday, Sunday, New Year's Day, Martin Luther King Day, President's Day, Patriot's Day, Memorial Day, Bunker Hill Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, Christmas Day (and the following day when any such day occurs on Sunday) and such other days that tenants occupying at least 50% of Total Office Area now or in the future recognize as holidays for their general office staff.

Commencement Date: As defined in Section 4.1.

Default of Tenant: As defined in Section 13.1.

Escalation Charges: The amounts prescribed in Sections 8.1 and 9.2.

Force Majeure: As defined in Section 14.4.

Escalation Factor Computation: Premises Rentable Area divided by 95% of Building Rentable Area.

Initial Monthly Parking Rate: None.

Lease Year: A period of twelve (12) consecutive months during the Term of this Lease, except that the first Lease Year will commence on the Commencement Date and end on the day immediately preceding the first anniversary of the Rent Commencement Date, except that if the Rent Commencement Date shall be other than the first day of a calendar month, the first Lease Year shall end on the last day of the calendar month on which such first anniversary shall fall.

Initial Public Liability Insurance: \$3,000,000 per occurrence (combined single limit) for property damage, bodily injury or death.

Operating Expenses: As determined in accordance with Section 9.1.

Operating Year: As defined in Section 9.1.

Premises: A portion of the fourth (4th) floor of the Building (excluding the elevators, staircases and mechanical closets), substantially as shown on Exhibit A-3 attached hereto.

Park: The land, buildings and other improvements thereon, from time to time, known as the Totten Pond Office Park Condominium, 400 Totten Pond Road, 410 Totten Pond Road and 460 Totten Pond Road, City of Waltham, Massachusetts, substantially as shown on the plan attached hereto as Exhibit A-1, and as more particularly described in the legal description attached hereto as Exhibit A-2.

Tax Year: As defined in Section 8.1.

Taxes: As determined in accordance with Section 8.1

Tenant's Delay: As defined in Section 4.4.

Tenant's Removable Property: As defined in Section 5.2.

ARTICLE II
PREMISES AND APPURTENANT RIGHTS

- 2.1 LEASE OF PREMISES. Landlord hereby demises and leases to Tenant for the Term of this Lease and upon the terms and conditions hereinafter set forth, and Tenant hereby accepts from Landlord, the Premises, excluding the roof, exterior faces of exterior walls, the common stairways, stairwells, elevators and elevator shafts, and pipes, ducts, conduits, wires, and appurtenant fixtures serving exclusively or in common other parts of the Building or Park (and any areas, such as the space above the ceiling or in the walls, that may contain such pipes, ducts, conduits, wires or appurtenant fixtures), and if Tenant's space includes less than entire rentable area of any floor, excluding the central core area of such floor.
- 2.2 APPURTENANT RIGHTS AND RESERVATIONS. (a) Tenant shall have, as appurtenant to the Premises, rights to use in common, with others entitled thereto, subject to reasonable rules governing use of the Building and Park from time to time made by Landlord of which Tenant is given prior written notice and with due regard for the rights of others to use the same (a) the common roadways, sidewalks and walkways necessary for the purposes of access to the Building from public road and walkways of the Park, (b) the Parking Areas for the purpose of parking of motor vehicles by Tenant and Tenant's employees and invitees on a first-come first served, non-reserved basis, (c) common lobby, bathrooms and stairways of the Building and (d) any common area amenities of the Park (e.g., benches and lawns) for the purposes for which the same are intended; and no other appurtenant rights or easements. For the purposes hereof, the "Parking Areas" shall be defined as those portions of the parking areas in the Park which are available for the common use by all of the tenants in the Park, as may be designated by Landlord, from time to time.
- (b) Excepted and excluded from the Premises are the ceiling, floor and perimeter walls (except the inner surface of each thereof), and any space in the Premises used for shafts, stacks, pipes, conduits, fan rooms, ducts, electric or other utilities, sinks or other Building facilities, but the entry doors (and related glass and finish work) to the Premises, as well as all plate glass, are a part thereof. In the event that Tenant shall install any hung ceilings or walls in the Premises, Tenant shall install and maintain, as Landlord may require, proper access panels therein to afford access to any facilities above the ceiling or within or behind the walls. Landlord reserves the right from time to time, without unreasonable interference with use of the Premises: (a) to install, use, maintain, repair, replace and relocate for service to the Premises and other parts of the Building or Park, or either, pipes, ducts, conduits, wires and appurtenant fixtures,

wherever located in the Premises, Building or Park, (b) to alter or relocate any other common facility, (c) to make any repairs and replacements to the Premises which Landlord may deem necessary, and (d) in connection with any excavation made upon adjacent land of Landlord or others, to enter, and to license others to enter, upon the Premises to do such work as the person causing such excavation deems necessary to preserve the wall of the Building from injury or damage and to support the same.

- 2.3 THE PARK. The Building is located in the Park described in Article 1.1, which Park may be changed, increased or decreased from time to time by Landlord during the Term (as defined below) by (i) the addition or subdivision of parcels or (ii) the construction and/or demolition of buildings and/or other improvements by Landlord or (iii) the conveyance or sale of any building(s) or unit(s) within the Park by Landlord.

ARTICLE III
BASIC RENT

- 3.1 PAYMENT. (a) Tenant agrees to pay to Landlord, or as directed by Landlord, commencing on the Commencement Date without offset, abatement, deduction or demand, the Basic Rent. Such Basic Rent shall be payable in equal monthly installments, in advance, on the first day of each and every calendar month during the Term of this Lease, at Landlord's Original Address, or at such other place as Landlord shall from time to time designate by notice, in lawful money of the United States. At the time of Tenant's execution and delivery of this Lease, Tenant shall pay the Basic Rent that will be due for the first full month following the Rent Commencement Date together with any security deposit. Basic Rent for any period during the term hereof which is for less than one month shall be prorated based upon the actual number of days of the calendar month involved. Until notice of some other designation is given, Basic Rent and all other charges for which provision is herein made shall be paid by remittance payable to the Agent, and all remittances so received as aforesaid, or by any subsequently designated recipient, shall be treated as a payment to Landlord. Notwithstanding the foregoing, so long as there exists no Default of Tenant (nor any event or circumstance which, with the giving of notice or the passage of time, would constitute a Default of Tenant) exists, Landlord will waive the requirement that Tenant pay Basic Rent for the period commencing on the Commencement Date and ending on the day immediately preceding the Rent Commencement Date. In the event that any installment of Basic Rent is not paid when due, Tenant shall pay, in an addition to any charges under Section 14.18, at Landlord's request an administrative fee equal to 1% of the overdue payment. Landlord and Tenant agree that all amounts due from Tenant under or in respect of this Lease, whether labeled Basic Rent, Escalation Charges, additional charges or otherwise, shall be considered as rental reserved under this Lease for all purposes, including without limitation regulations promulgated pursuant to the Bankruptcy Code, and including further without limitation Section 502(b) thereof.

(b) Basic Rent for any partial month shall be pro-rated on a daily basis, and if the first day on which Tenant must pay Basic Rent shall be other than the first day of a calendar month, the first payment which Tenant shall make to Landlord shall be equal to a proportionate part of the monthly installment of Basic Rent for the partial month from the first day on which Tenant must pay Basic Rent to the last day of the month in which such day occurs, plus the installment of Basic Rent for the succeeding calendar month.

ARTICLE IV
COMMENCEMENT AND CONDITION

- 4.1 COMMENCEMENT DATE. The Commencement Date shall be the later to occur of (i) November 1, 2017 (the “Target Date”) or (i) the day on which Landlord tenders possession of the Premises to Tenant.

Notwithstanding the foregoing, if Tenant’s personnel shall occupy all or any part of the Premises for the conduct of its business prior to the Commencement Date as determined pursuant to the preceding sentence, such date of occupancy shall, for all purposes of this Lease, be the Commencement Date. Upon the occurrence of the Commencement Date, each party shall enter into a letter agreement substantially in the form of Exhibit B hereto, confirming such Date. The failure of either party to enter into such a letter agreement shall have no effect on the occurrence of the Commencement Date as provided herein.

- 4.2 CONDITION OF THE PREMISES. The Premises are being leased in their condition **AS IS WITHOUT REPRESENTATION OR WARRANTY** by Landlord. Tenant acknowledges and agrees that Tenant shall be solely responsible for any work done in or to the Premises, including without limitation with respect to telephone/data cabling or infrastructure, floor coring, supplemental cooling, any furniture, any security system and any other changes with respect to the Premises (it being understood that all such work shall be subject to the terms and conditions of this Lease). Tenant acknowledges that it has inspected the Premises and common areas of the Building and has found the same satisfactory for their intended use.

- 4.3 LANDLORD’S ALLOWANCE. Landlord acknowledges that Tenant may desire to make certain alterations or improvements in the Premises to make the same more suitable for Tenant’s occupancy (collectively, the “Tenant Improvements”), which may include, without limitation design and construction of leasehold improvements and wiring and infrastructure for Tenant’s furniture systems. All Tenant Improvements shall be undertaken by Tenant in strict accordance with this Lease, including without limitation Section 5.2 hereof, and in accordance with plans and specifications approved in advance by Landlord, such approval not to be unreasonably withheld, delayed or conditioned. The Tenant Improvements shall be deemed substantially complete on that date on which the Tenant Improvements have been completed except

for items of work (and, if applicable, adjustment of equipment and fixtures) which can be completed after Tenant has taken occupancy of the Premises, or any part thereof, without causing undue interference with Tenant's use of the Premises. To the extent that (i) such work is substantially completed in accordance with such requirements, and (ii) receipted invoices (and other material required under this Lease or reasonably required by Landlord such as, but not limited to, final lien waivers from any contractor or subcontractor performing the Tenant Improvements) showing the actual cost thereof are presented to Landlord, within one hundred eighty (180) days after the Commencement Date, and (iii) at the time of any advance of funds, there then exists no Default of Tenant under the Lease, nor any event or circumstance which, with the giving of notice or the passage of time, or both, would constitute a Default of Tenant, Landlord shall reimburse Tenant, within thirty (30) days after receipt of such invoices and supporting material, for costs actually incurred by Tenant (excluding the costs of furniture, trade fixtures and equipment), as evidenced by such invoices, in connection with the construction of the Tenant Improvements, but in no event shall Landlord be obligated to reimburse Tenant more than Thirty-four Thousand Fifty Dollars (\$34,050.00) (the "Landlord's Allowance"). Any portion of Landlord's Allowance that is not used for the Tenant Improvements may be used by Tenant as a credit toward payments of Basic Rent. If Tenant desires to apply any available portion of Landlord's Allowance to Basic Rent, Tenant shall so advise Landlord in writing no later than the day on which the payment in question would otherwise be due, specifying the amount to be applied and the calendar month to which such payment is to be applied. To the extent that, within two hundred seventy (270) days after the Commencement Date, Tenant has not either requested disbursement of Landlord's Allowance to pay for Tenant Improvement costs or requested that Landlord apply the undisbursed Landlord's Allowance to payment of then owing or future installments of Basic Rent, Landlord shall have no further obligation to advance or credit any then-undisbursed portion of Landlord's Allowance or otherwise reimburse Tenant for any such costs.

ARTICLE V
USE OF PREMISES

- 5.1 PERMITTED USE. (a) Tenant agrees that the Premises shall be used and occupied by Tenant only for Permitted Uses specifically excluding use for governmental, utility company or employment agency offices.
- (b) Tenant agrees to conform to the following provisions during the Term of this Lease:
- (i) Tenant shall cause all freight to be delivered to or removed from the Building and the Premises in accordance with reasonable rules and regulations established by Landlord therefor;

(ii) Tenant will not place on the exterior of the Premises (including both interior and exterior surfaces of doors and interior surfaces of windows) or on any part of the Building outside the Premises, any signs, symbol, advertisement or the like visible to public view outside of the Premises without Landlord's prior written consent. Landlord will not unreasonably withhold consent for Tenant's standard corporate signs or lettering on the entry doors to the Premises, provided such signs conform to building standards adopted by Landlord in its sole discretion and Tenant has submitted to Landlord for approval a plan or sketch in reasonable detail (showing, without limitation, size, color, location, materials and method of affixation) of the sign to be placed on such entry doors. Tenant shall be responsible for obtaining any necessary governmental approvals for such signs, and for the maintenance, repair and replacement (and, upon the expiration or earlier termination of this Lease, the removal) of such signs. Landlord agree to maintain a tenant directory in the lobby of the Building in which will be placed Tenant's name and the location of the Premises in the Building. The initial cost of placing Tenant's name in the directory shall be paid by Landlord. The cost of any subsequent modifications thereto shall be paid by Tenant, at Tenant's sole expense. Tenant shall be solely responsible for maintaining, repairing and removing any signage not provided by Landlord;

(iii) Tenant shall not perform any act or carry on any practice which may injure the Premises, or any other part of the Building, or cause any offensive odors or loud noise or constitute a nuisance or a menace to any other tenant or tenants or other persons in the Building;

(iv) Tenant shall, at Tenant's sole expense, promptly comply with all applicable laws and ordinances, governmental rules, regulations, and orders, certificates of occupancy, conditional use or other permits, variances, covenants and restrictions of record, the recommendations of Landlord's engineers or other consultants, and requirements of any fire insurance underwriters, rating bureaus or government agencies, now in effect or which may hereafter come into effect, whether or not they reflect a change in policy from that now existing, during the Term or any part of the Term hereof, relating in any manner to the Premises and the occupation and use by Tenant of the Premises. Tenant shall, at Tenant's sole expense, comply with all requirements of the Americans With Disabilities Act that relate to the Premises, and all federal, state and local laws and regulations governing occupational safety and health;

5.2 INSTALLATIONS AND ALTERATIONS BY TENANT. (a) Tenant shall make no alterations, additions or improvements (including, but not be limited to, the installation or alteration of security or fire protection systems, communication systems, millwork, shelving, file retrieval or storage systems, carpeting or other floor covering, window and wall coverings, electrical distribution systems, lighting fixtures, telephone or computer system wiring, HVAC and plumbing) in or to the Premises (including, any

improvements necessary for Tenant's initial occupancy of the Premises) without Landlord's prior written consent. Landlord's consent shall not be required in the case of interior cosmetic or decorative alterations that (i) do not affect the electrical, mechanical or plumbing systems or equipment serving the Premises, and (ii) do not require a building permit or other governmental approval or review; and (iii) cost less than \$10,000.00 in the aggregate. Any such alterations, additions or improvements for which consent is required shall be in accordance with complete plans and specifications approved in advance by Landlord. All of Tenant's alterations and additions and installation and delivery of telephone systems, furnishings, and equipment shall be coordinated with any work being performed by Landlord and shall be performed in such manner, and by such persons as shall maintain harmonious labor relations and not cause any damage to the Building or interference with Building construction or operation. Such work shall (i) be performed in a good and workmanlike manner and in compliance with all applicable laws, (ii) be made at Tenant's sole cost and expense and at such times and in such a manner as Landlord may from time to time designate, and in accordance with the construction regulations set forth in Exhibit C attached hereto, and (iii) become part of the Premises and the property of Landlord. If any alterations or improvements shall involve the removal of fixtures, equipment or other property in the Premises which are not Tenant's Removable Property, such fixtures, equipment or property shall be promptly replaced by Tenant at its expense with new fixtures, equipment or property of like utility and of at least equal quality. Tenant agrees to pay promptly when due, and to defend and indemnify Landlord from and against, the entire cost of any work done on the Premises by Tenant, its agents, employees or independent contractors, and not to cause or permit any liens for labor or materials performed or furnished in connection therewith to attach to the Building or the Park and immediately to discharge any such liens which may so attach.

(b) All articles of personal property and all business and trade fixtures, machinery and equipment and furniture owned or installed by Tenant solely at its expense in the Premises ("Tenant's Removable Property") shall remain the property of Tenant and may be removed by Tenant at any time prior to the expiration of this Lease, provided that Tenant, at its expense, shall repair any damage to the Building caused by such removal. Any Tenant's Removable Property shall be installed at the sole risk of Tenant and shall be insured by Tenant in accordance with Article X. In connection with the installation of telecommunication equipment by Tenant, such installation shall occur only in such locations and in such a manner as approved in writing by the Landlord (which approval shall not be unreasonably delayed, conditioned or withheld) and none of such wires, ducts or equipment shall be located in areas outside the Premises. Notwithstanding any other provision of this Lease, at the request of Landlord, telecommunication wires, ducts or equipment installed by the Tenant shall be removed by Tenant at the expiration of the Term or earlier termination of this Lease, and all damage caused by such removal repaired. Telephone switches, antennae, electronic distribution boxes and similar equipment shall only be located within the Premises.

(c) In any case, at the time of Landlord's approval, Tenant shall pay to Landlord a fee equal to four percent (4%) of the cost any alteration, addition or improvement for which Tenant requests Landlord's consent to compensate Landlord for the overhead and other costs it incurs in reviewing the plans therefor and in monitoring the construction. Notice is hereby given that Landlord shall not be liable for any labor or materials furnished or to be furnished to Tenant upon credit, and that no mechanic's or other lien for any such labor or materials shall attach to or affect the reversion or other estate or interest of Landlord in and to the Premises. To the maximum extent permitted by law, before such time as any contractor commences to perform work on behalf of Tenant, such contractor (and any subcontractors) shall furnish a written statement acknowledging the provisions set forth in the prior clause. Whenever and as often as any mechanic's lien shall have been filed against the Unit or the Park based upon any act or interest of Tenant or of anyone claiming through Tenant, Tenant shall forthwith take such action by bonding, deposit or payment as will remove or satisfy the lien.

(d) In the course of any work being performed by Tenant (including without limitation the "field installation" of any Tenant's Removable Property), Tenant agrees to use labor compatible with that being employed by Landlord for work in or to the Building or other buildings owned by Landlord or its affiliates (which term, for purposes hereof, shall include, without limitation, entities which control or are under common control with Landlord, or which are controlled by Landlord or, if Landlord is a partnership, by any partner of Landlord) and not to employ or permit the use of any labor or otherwise take any action which might result in a labor dispute involving personnel providing services in the Building pursuant to arrangements made by Landlord.

5.3 HAZARDOUS MATERIALS. (a) For purposes of this Lease, the term "Hazardous Material" means any hazardous substance, hazardous waste, infectious waste, petroleum product or toxic substance, material, or waste which becomes regulated or is defined as such by any local, state or federal governmental authority. Except for reasonable quantities of ordinary office supplies such as copier toners, liquid paper and ink and common cleaning materials and solvents or other substances commonly used in non-hospital medical offices (all of which shall in any event be kept, stored and used only in accordance with applicable laws and regulations), Tenant shall not cause or permit any Hazardous Material to be brought, kept or used in or about the Premises or the Park by Tenant, its agents, employees, contractors, or invitees. Tenant hereby agrees to indemnify Landlord from and against any breach by Tenant of the obligations stated in the preceding sentence, and agrees to defend and hold Landlord harmless from and against any and all claims, judgments, damages, penalties, fines, costs, liabilities, or losses (including, without limitation, diminution in value of the Building or the Park, damages for the loss or restriction or use of rentable space or of any

amenity of the Park, damages arising from any adverse impact on marketing of space in the Building or the Park, sums paid in settlement of claims, attorneys' fees, consultant fees and expert fees) which arise during or after the Term of this Lease as result of such breach. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions and any cleanup, remedial removal, or restoration work required due to the presence of Hazardous Material. Tenant shall promptly notify Landlord of any release of a Hazardous Material in the Premises or (if caused by Tenant or its agents or contractors) in the Park.

(b) If Tenant knows, or has reasonable cause to believe, that a Hazardous Material, or a condition involving or resulting from same, has come to be located in, on or under or about the Premises or the Park, Tenant shall immediately give written notice of such fact to Landlord. Tenant shall also immediately give Landlord (without demand by Landlord) a copy of any statement, report, notice, registration, application, permit, license, given to or received by Tenant from or to any governmental authority or persons entering or occupying the Premises, concerning the presence, spill, release, discharge of or exposure to, any Hazardous Material or contamination in, on or about the Premises or the Park.

ARTICLE VI
ASSIGNMENT AND SUBLETTING

- 6.1 **RESTRICTION.** (a) Except as provided in this Article VI, Tenant covenants and agrees that whether voluntarily, involuntarily, by operation of law or otherwise neither this Lease nor the term and estate hereby granted, nor any interest herein or therein, will be assigned, mortgaged, pledged, encumbered or otherwise transferred and that neither the Premises nor any part thereof will be encumbered in any manner by reason of any act or omission on the part of Tenant, or used or occupied or permitted to be used or occupied, by anyone other than Tenant, or for any use or purpose other than a Permitted Use, or be sublet (which term, without limitation, shall include granting of concessions, licenses and the like) in whole or in part, or be offered or advertised for assignment or subletting. Without limiting the foregoing, any agreement pursuant to which:
- (x) Tenant is relieved from the obligation to pay, or a third party agrees to pay on Tenant's behalf, all or any portion of Basic Rent, Escalation Charges or other charges due under this Lease; and/or (y) a third party undertakes or is granted the right to assign or attempt to assign this Lease or sublet or attempt to sublet all or any portion of the Premises, shall for all purposes hereof be deemed to be an assignment of this Lease and subject to the provisions of this Article VI. Unless the stock or partnership interest (or other evidence of the ownership of Tenant) is registered and publicly traded on an exchange regulated by the United States Securities and Exchange Commission, the provisions of this paragraph (a) shall apply to a transfer (by one or more transfers over the Term of this Lease) of fifty one percent (51%) or more of the stock or partnership interests or other evidences of ownership of Tenant as if such transfer were a prohibited assignment of this Lease.

(b) The provisions of paragraph (a) shall not apply to assignments or subleases of this Lease arising from or in connection with either: transactions with an entity into or with which Tenant is merged or consolidated, or to which substantially all of Tenant's assets are transferred; or transactions with any entity which controls or is controlled by Tenant or is under common control with Tenant; provided that in either such event:

(i) the successor to Tenant or sublessee has a net worth computed in accordance with generally accepted accounting principles consistently applied at least equal to the greater of (1) the net worth of Tenant (together with that of any guarantor(s)) immediately prior to such merger, consolidation or transfer, or (2) the net worth of Tenant (together with that of any guarantor(s)) herein named on the date of this Lease,

(ii) proof satisfactory to Landlord of such net worth shall have been delivered to Landlord at least 10 days prior to the effective date of any such transaction, and

(iii) the assignee or sublessee agrees directly with Landlord, by written instrument in form satisfactory to Landlord, to be bound by all the obligations of Tenant hereunder including, without limitation, the covenant against further assignment and subletting.

(c) If, in violation of this Article 6, this Lease be assigned, or if the Premises or any part thereof be sublet or occupied by anyone other than Tenant and there is an Default of Tenant, Landlord may, at any time and from time to time, collect rent and other charges from the assignee, subtenant or occupant, and apply the net amount collected to the rent and other charges herein reserved, but no such assignment, subletting, occupancy, collection or modification of any provisions of this Lease shall be deemed a waiver of this covenant, or the acceptance of the assignee, subtenant or occupant as a tenant or a release of Tenant from the further performance of covenants on the part of Tenant to be performed hereunder. Any consent by Landlord to a particular subletting or occupancy shall not in any way diminish the prohibition stated in paragraph (a) of this Section 6.1 or the continuing liability of the original named Tenant. No assignment or subletting hereunder shall relieve Tenant from its obligations hereunder and Tenant shall remain fully and primarily liable therefor. No such assignment, subletting, or occupancy shall affect or be contrary to Permitted Uses. Any consent by Landlord to a particular assignment, subletting or occupancy shall be revocable, and any assignment, subletting or occupancy shall be void *ab initio*, if the same shall fail to require that such assignee, subtenant or occupant agree therein to be independently bound by and upon all of the covenants, agreements, terms, provisions and conditions set forth in this Lease on the part of Tenant to be kept and performed.

6.2 CONSENT TO SUBLEASE. (a) Notwithstanding the prohibition set forth in Section 6.1(a), so long as there then exists no Default of Tenant (nor any event or circumstance which, with the giving of notice or the passage of time, or both, would constitute a Default of Tenant), Landlord shall not unreasonably withhold, delay or condition its consent to one or more sublettings requested by Tenant, provided further that:

(i) The business of each proposed subtenant and its use of the Premises shall be consistent with the Permitted Uses, and the financial condition and standing of the proposed subtenant shall be reasonably acceptable to Landlord (notwithstanding that Tenant will remain liable hereunder)..

(ii) Neither the proposed subtenant nor any person who directly or indirectly, controls, is controlled by, or is under common control with, the proposed subtenant or any person who controls the proposed subtenant, shall be (A) a government (or subdivision or agency thereof), or (B) a medical or dental office, or (C) a tenant of the Building or the Park;

(iii) The form of the proposed sublease, as well as the Landlord's consent thereto, shall be reasonably satisfactory to Landlord and its counsel and shall comply with the applicable provisions of this Article 6;

(iv) not later than fifteen (15) days prior to the proposed commencement of such sublease, Landlord shall have received information reasonably sufficient to determine compliance with the foregoing conditions; and

(v) Tenant shall in all cases remain fully and primarily liable hereunder.

If Tenant requests Landlord's consent to a sublease then, at the time of such request, Tenant shall provide Landlord with a written description of all terms and conditions of the proposed transfer, copies of the proposed documentation, and the following information about the proposed sublessee: name and address; reasonably satisfactory information about its business and business history; its proposed use of the Premises; banking, financial, and other credit information; and general references sufficient to enable Landlord to determine the proposed sublessee's creditworthiness and character.

(b) It shall not be unreasonable for Landlord to withhold its consent to any proposed sublease if (i) at the time of such request, Tenant is in default under this Lease, (ii) the proposed sublessee is a tenant in the Building or is an affiliate of such a tenant or a party that Landlord has identified as a tenant or a prospective tenant in the Building, (iii) the financial responsibility (including, without limitation, the fact that the proposed sublessee has a smaller net worth than tenant on the date of this Lease and/or such sublessee is less able financially to pay the Rent under this Lease as and when they are due and payable),

nature of business, and character of the proposed transferee are not all reasonably satisfactory to Landlord, (iv) in the reasonable judgment of Landlord the purpose for which the transferee intends to use the Premises (or a portion thereof) is not in keeping with Landlord's standards for the Building or would impose a burden on the parking facilities, elevators, Common Areas or utilities that is greater than the burden imposed by Tenant (or, in the case of retail space, is for a use that Landlord determines in its sole discretion is inconsistent with Landlord's desired retail mix), (v) the proposed sublessee is a government entity or quasi-governmental entity or agency, (vi) the Basic Rent payable by the proposed transferee is less than the greater of: (x) the then prevailing fair market rental rate for the Premises as determined by Landlord, or (y) the Basic Rent payable by Tenant under the Lease and/or (vii) the proposed sublease would cause Landlord to be in violation of any of its obligations under another lease or agreement to which Landlord is a party. In no event shall any sublease cover fewer than 2,000 square feet of space or have a fixed term of less than one (1) year. The foregoing shall not exclude any other reasonable basis for Landlord to withhold its consent. Landlord shall have no liability for damages to Tenant or to any proposed sublessee, and Tenant shall not be permitted to terminate this Lease, if it is adjudicated that Landlord's consent has been unreasonably withheld and such unreasonable withholding of consent constitutes a breach of this Lease or other duty to Tenant, the proposed sublessee or any other person on the part of Landlord. In such event, Tenant's sole remedy shall be to have the proposed sublease declared valid as if Landlord's consent had been given.

- 6.3 EXCESS PAYMENTS. In the event that Tenant shall enter into one or more subleases, if the rent, consideration and other sums (including without limitation the fair value of any services provided by such subtenant for Tenant) on account of any such sublease exceed the Basic Rent and Escalation Charges allocable to that portion of the Premises subject to such sublease, plus actual out-of-pocket third party expenses reasonably incurred in connection with such sublease (such expenses to be pro-rated evenly over the term of such sublease), including without limitation reasonable advertising and marketing costs, reasonable legal fees and reasonable brokerage commissions actually paid to a licensed broker ("Excluded Costs"), Tenant shall pay to Landlord, as an additional charge, 50% of such excess, such amount to be paid monthly with payments by Tenant of Basic Rent hereunder. If Tenant shall assign this Lease, and if Tenant receives any payment, consideration, or other value (including without limitation the fair value of any services provided by such assignee for Tenant) on account of such assignment (over and above the assignee's assumption of the Tenant's obligations hereunder) in excess of the Basic Rent hereunder for the remainder of the term, Tenant shall pay to Landlord, as an additional charge, 50% of such excess (after deducting Excluded Costs), such amount to be paid when received by the Tenant. The provisions hereof shall not apply to an assignment or sublease for which Landlord's consent is not required pursuant to 6.1(b).

6.4 INTENTIONALLY OMITTED.

6.5 MISCELLANEOUS. (a) Any sublease consented to by Landlord shall be expressly subject and subordinate to all of the covenants, agreements, terms, provisions and conditions contained in this Lease. Any proposed sub-sublease or proposed assignment of a sublease shall be subject to the provisions of this Article. Tenant shall reimburse Landlord on demand, as an additional charge, for any reasonable out of pocket costs (including reasonable attorneys' fees and expenses) incurred by Landlord in connection with any actual or proposed assignment or sublease, whether or not consummated, including the costs of making investigations as to the acceptability of the proposed assignee or subtenant not to exceed \$2,000.00. Any sublease to which Landlord gives its consent shall not be valid or binding on Landlord unless and until Tenant and the sublessee execute a consent agreement in form and substance satisfactory to Landlord.

(b) Notwithstanding any sublease, or any amendments or modifications subsequent thereto, Tenant will remain fully liable for the payment of Basic Rent, Escalation Charges and other charges and for the performance of all other obligations of Tenant contained in this Lease. Any act or omission of any subtenant or assignee, or of anyone claiming under or through any subtenant or assignee, that violates any of the obligations of this Lease shall be deemed a violation of this Lease by Tenant.

(c) The consent by Landlord to any sublease shall not relieve Tenant or any person claiming through or under Tenant of the obligation to obtain the consent of Landlord, pursuant to the provisions of this Article, to any subsequent sublease.

(d) With respect to each and every sublease authorized by Landlord under the provisions of this Article, it is further agreed that any such sublease shall provide that: (i) the term of the sublease must end no later than one day before the last day of the Term of this Lease; (ii) no sublease shall be valid, and no subtenant shall take possession of all or any part of the Premises until a fully executed counterpart of such sublease has been delivered to Landlord; (iii) each sublease shall provide that it is subject and subordinate to this Lease; (iv) so long as any Default of Tenant shall exist hereunder, Landlord may enforce the provisions of the sublease, including collection of rents; (v) in the event of termination of this Lease or reentry or repossession of the Premises by Landlord, Landlord may, at its sole discretion and option, take over all of the right, title and interest of Tenant, as sublessor, under such sublease, and such subtenant shall, at Landlord's option, attorn to Landlord but nevertheless Landlord shall not (A) be liable for any previous act or omission of Tenant under such sublease; (B) be subject to any defense or offset previously accrued in favor of the subtenant against Tenant; or (C) be bound by any previous modification of such sublease made without Landlord's written consent or by any previous prepayment of more than one month's rent.

6.6 ACCEPTANCE OF RENT. If this Lease is assigned, whether or not in violation of the provisions of this Lease, Landlord may collect rent from the assignee. If all or any part of the Premises are sublet, whether or not in violation of this Lease, Landlord may, after default by Tenant and expiration of Tenant's time to cure such default, collect rent from

the subtenant or assignee. In either event, Landlord may apply the net amount collected to payment of Rents, but no such assignment, subletting, or collection shall be deemed a waiver of any of the provisions of this Article, an acceptance of the assignee or subtenant as a lessee, or a release of Tenant from the performance by Tenant of Tenant's obligations under this Lease.

ARTICLE VII
RESPONSIBILITY FOR REPAIRS AND CONDITION OF PREMISES:
SERVICES TO BE FURNISHED BY LANDLORD

- 7.1 LANDLORD REPAIRS. (a) Landlord represents to Tenant that, to the best actual knowledge of the property manager having responsibility for the Building, as of the date of this Lease, Landlord has not received any written notice from any governmental authority to the effect that the Premises or the common areas serving the Premises are in violation of any applicable law or code. Except as otherwise provided in this Lease, Landlord agrees to keep in good order, condition and repair the roof, public areas and common elements, exterior walls (including exterior glass) and structure of the Building (including all plumbing, mechanical and electrical systems installed by Landlord, but specifically excluding any supplemental heating, ventilation or air conditioning equipment or systems installed at Tenant's request or as a result of Tenant's requirements in excess of building standard design criteria), all insofar as they affect the Premises, except that Landlord shall in no event be responsible to Tenant for the repair of glass in the Premises, the doors (or related glass and finish work) leading to the Premises, or any condition in the Premises or the Building caused by any act or neglect of Tenant, its invitees or contractors. Landlord shall not be responsible to make any improvements or repairs to the Building other than as expressly stated in this Section 7.1 provided, unless expressly provided otherwise in this Lease.
- (b) Landlord shall never be liable for any failure to make repairs which Landlord has undertaken to make under the provisions of this Section 7.1 or elsewhere in this Lease, unless Tenant has given notice to Landlord of the need to make such repairs, and Landlord has failed to commence to make such repairs within a reasonable time after receipt of such notice, or fails to proceed with reasonable diligence to complete such repairs.
- 7.2 TENANT'S AGREEMENT. (a) Tenant will keep neat and clean and maintain in good order, condition and repair the Premises and every part thereof, excepting only those repairs for which Landlord is responsible under the terms of this Lease, reasonable wear and tear of the Premises, and damage by fire or other casualty and as a consequence of the exercise of the power of eminent domain, and shall surrender the Premises at the end of the Term of this Lease in such condition. Without limitation, Tenant shall continually during the Term of this Lease maintain the Premises in accordance with all laws, codes and ordinances from time to time in effect and all

directions, rules and regulations of the proper officers of governmental agencies having jurisdiction, and of the applicable board of fire underwriters, and shall, at Tenant's own expense, obtain all permits, licenses and the like required by applicable law for Tenant's modifications, alterations or additions to the Premises and to operate its business. To the extent that the Premises constitute a "Place of Public Accommodation" within the meaning of the Americans With Disabilities Act of 1990, Tenant shall be responsible, subject to the requirements of Section 5.2, for making the Premises comply with such Act. However, Tenant shall not be obligated to make any structural alterations to the Premises as a result of any change in the law unless compliance shall be required by reason of (i) any new cause or condition related to any alterations or installations made by Tenant in the Premises, (ii) Tenant's particular use of the Premises (as opposed to general office uses), or (iii) any breach of any of Tenant's covenants or agreements under the Lease. In addition, if due to any alteration, addition or improvement made by Tenant, other portions of the Building or the Property must be altered in order to comply with any legal requirement, Landlord may make such alteration at Tenant's cost. Notwithstanding the foregoing or the provisions of Article XII, to the maximum extent this provision may be enforceable according to law, but subject to any applicable waivers of claims and rights of subrogation contained in this Lease, Tenant shall be responsible for the cost of repairs which may be made necessary by reason of damage to the Building caused by any act or neglect of Tenant, or its contractors or invitees (including any damage by fire or other casualty arising therefrom) and, if the premium or rates payable with respect to any policy or policies of insurance purchased by Landlord or Agent with respect to the Building or the Park increases as a result of payment by the insurer of any claim arising from the any act or neglect of Tenant, or its contractors or invitees, Tenant shall pay such increase, from time to time, within fifteen (15) days after demand therefor by Landlord, as an additional charge.

(b) If repairs are required to be made by Tenant pursuant to the terms hereof, Landlord may demand that Tenant make the same forthwith, and if Tenant refuses or neglects to commence such repairs and complete the same with reasonable dispatch, after such demand (except in the case of an emergency, in which event Landlord may make such repairs immediately), Landlord may (but shall not be required to do so) make or cause such repairs to be made (the provisions of Section 14.18 being applicable to the costs thereof), and shall not be responsible to Tenant for any loss or damage whatsoever that may accrue to Tenant's stock or business by reason thereof.

7.3 FLOOR LOAD - HEAVY MACHINERY. (a) Tenant shall not place a load upon any floor in the Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by law. Landlord reserves the right to prescribe the weight and position of all business machines and mechanical equipment, including safes, which shall be placed so as to distribute the weight. Business machines and mechanical equipment shall be placed and maintained by Tenant at Tenant's expense in settings sufficient, in Landlord's reasonable judgment, to absorb

and prevent vibration, noise and annoyance. Tenant shall not move any safe, heavy machinery, heavy equipment, freight, bulky matter or fixtures into or out of the Building without Landlord's prior consent, which consent may include a requirement to provide insurance, naming Landlord as an insured, in such amounts as Landlord may deem reasonable.

(b) If any such safe, machinery, equipment, freight, bulky matter or fixtures requires special handling, Tenant agrees to employ only persons holding a Master Rigger's License to do such work, and that all work in connection therewith shall comply with applicable laws and regulations. Any such moving shall be at the sole risk and hazard of Tenant, and Tenant will exonerate, indemnify and save Landlord harmless against and from any liability, loss, injury, claim or suit resulting directly or indirectly from such moving.

7.4 BUILDING SERVICES. (a) Landlord shall, on Business Days from 8:00 a.m. to 6:00 p.m., furnish heating and cooling as normal seasonal changes may require to provide reasonably comfortable space temperature and ventilation (reserving the right, at any time, to change energy or heat sources) for occupants of the Premises under normal business operation at an occupancy of not more than one person per 100 square feet of Premises Rentable Area and an electrical load not exceeding four (4) watts per square foot of usable area within the Premises. In the event Tenant introduces into the Premises personnel or equipment which overloads the capacity of the Building system or in any other way interferes with the system's ability to perform adequately its proper functions, supplementary systems may, if and as needed, at Landlord's option, be provided by Landlord, at Tenant's expense.

(b) Landlord will use reasonable efforts upon reasonable advance written notice from Tenant of its requirements in that regard, to furnish additional heat, cleaning or air conditioning services to the Premises on days and at times other than as set forth in Section 7.4(a) ("the Overtime Hours"). Tenant will pay to Landlord, as Additional Rent, for any such additional heat, cleaning or air conditioning service required by Tenant for the Overtime Hours. The cost for any HVAC service during Overtime Hours requested by Tenant and provided by Landlord is currently \$75.00 per hour per HVAC unit.

(c) Landlord shall also provide:

(i) Passenger elevator service from the existing passenger elevator system in common with Landlord and other tenants in the Building.

(ii) Cleaning to the Premises in accordance with cleaning and janitorial standards generally prevailing throughout the Term in comparable office buildings within the municipality in which the Building is located, but not including cleaning of carpets or rugs (except normal vacuuming) or moving of furniture, and other special services. Window cleaning shall be done by Landlord at reasonable intervals and as Landlord deems necessary.

(iii) Elevator service from the lobby to the Premises;

(iv) Water for ordinary cleaning, lavatory and toilet facilities If Tenant requires, uses or consumes water for any purpose other than for the aforementioned purposes, Landlord may (i) assess a reasonable charge for the additional water so used or consumed by Tenant or (ii) install a water meter and thereby measure Tenant's water consumption for all purposes.

(v) Free access to the Premises on Business Days from 8:00 a.m. to 6:00 p.m., and at all other times during the Term subject to security precautions from time to time in effect, and subject always to restrictions based on emergency conditions.

(vi) Free access (subject to reasonable restrictions from time to time in effect, and subject always to emergency conditions) to common cafeterias, fitness centers (including changing rooms, lockers and showers) and any shared conference facilities within the Building.

(d) Landlord or Agent may from time to time, but shall not be obligated to, provide one or more uniformed attendants in or about the lobby of the Building. Unless Landlord expressly agrees otherwise in writing, such attendant(s) shall serve functions such as assisting visitors and invitees of tenants and others in the Building, monitoring fire control and alarm equipment, and summoning emergency services to the Building as and when needed. Tenant expressly acknowledges and agrees that: (i) such attendants shall not serve as police officers, and will be unarmed, and will not be trained in situations involving potentially physical confrontation; and (ii) if provided, such attendants will be provided solely as an amenity to tenants of the Building for the sole purposes set forth above, and not for the purpose of securing any individual tenant premises or guaranteeing the physical safety of Tenant's Premises or of Tenant's employees, agents, contractors or invitees. If and to the extent that Tenant desires to provide security for the Premises or for such persons or their property, Tenant shall be responsible for so doing, after having first consulted with Landlord and after obtaining Landlord's consent, which shall not be unreasonably withheld. Landlord expressly disclaims any and all responsibility and/or liability for the physical safety of Tenant's property, and for that of Tenant's employees, agents, contractors and invitees, and, without in any way limiting the operation of Article X hereof, Tenant, for itself and its agents, contractors, invitees and employees, hereby expressly waives any claim, action, cause of action or other right which may accrue or arise as a result of any damage or injury to the person or property of Tenant or any such agent, invitee, contractor or employee Tenant agrees that, as between Landlord and Tenant, it is Tenant's responsibility to advise its employees, agents, contractors and invitees as to necessary and appropriate safety precautions.

(e) Notwithstanding anything to the contrary in this Article 7 or in this Lease contained, Landlord may institute, and Tenant shall comply with, such policies, programs and measures as may be necessary, required, or expedient for the conservation and/or preservation of energy or energy services to the Premises, or as may be necessary or required to comply with applicable codes, rules regulations or standards.

(f) Notwithstanding the foregoing to the contrary, if, due to any negligent or willful and wrongful act or omission of Landlord or Landlord's agents or employees, Tenant is prevented from receiving essential services or utilities that Landlord is obligated to perform or deliver under this Lease, and such interruption of essential services or utilities renders the Premises untenable (meaning that Tenant is unable to use and occupy the Premises in a reasonably safe manner for the business office purposes and Tenant has in fact vacated or partially vacated the Premises as a result), and if such interruption shall continue for a period of five (5) consecutive Business Days after notice thereof from Tenant to Landlord that the Premises are untenable as a result thereof, then Basic Rent and additional rent shall abate commencing on the sixth Business Day after such notice (and, if less than all of the Premises are affected by such interruption and vacated, such abatement shall be pro-rated according to the area so affected) until such time as such services or utilities are restored. The foregoing shall not apply to any interruption to the extent the same arises from any act or omission of Tenant or its agents, contractors or employees, or from fire or casualty, Force Majeure or taking or condemnation by the power of eminent domain, which are dealt with in Article XII. Tenant's rights herein granted shall be Tenant's sole and exclusive remedies for any loss or damage arising from any such interruption.

7.5 ELECTRICITY. (a) To furnish to the Premises, at the expense of Tenant as hereinbelow provided, electricity at an average of at least four (4) watts per rentable square foot of the Premises for normal office use including overhead lighting and normal office equipment. If Tenant shall require electricity in excess of reasonable quantities for Tenant's Permitted Uses and if (i) in Landlord's reasonable judgment, Landlord's facilities are inadequate for such excess requirements, or (ii) such excess use shall result in an additional burden on the Building utilities systems and additional cost to Landlord on account thereof, as the case may be, (a) Tenant shall, upon demand, reimburse Landlord for such additional cost, as aforesaid, or (b) Landlord, upon written request, and at the sole cost and expense of Tenant, will furnish and install such additional wire, conduits, feeders, switchboards and appurtenances as reasonably may be required to supply such additional requirements of Tenant (if electricity therefor is then available to Landlord), provided that the same shall be permitted by applicable laws and insurance regulations and shall not cause permanent damage or injury to the Building or cause or create a dangerous or hazardous condition or entail excessive or unreasonable alterations or repairs. Landlord reserves the right, at any time during the term, to separately meter electrical usage in the Premises and/or to measure electrical usage by survey or other commonly accepted method.

(b) From time to time during the Term of this Lease, Landlord shall have the right to have an electrical consultant selected by Landlord make a survey of Tenant's electric usage, the result of which survey shall be conclusive and binding upon Landlord and Tenant. In the event that such survey shows that Tenant has exceeded the requirements set forth in paragraph (a), in addition to any other rights Landlord may have hereunder, Tenant shall, upon demand, reimburse Landlord for the cost of such survey and the cost, as determined by such consultant, of electricity usage in excess of such requirements for the period of such excess usage, as additional charges.

(c) Tenant acknowledges that Basic Rent does not include the cost of Tenant's electricity, which cost shall be determined as provided in this paragraph.

(i) If the electricity usage in the Premises is not separately metered or sub-metered, Tenant shall pay for the electricity Tenant consumes in the Premises during the Term (exclusive of HVAC) by paying Landlord, as Additional Rent, at the same time and in the same manner as Tenant pays its monthly installment of Basic Rent hereunder, estimated amounts (the "Electricity Rent") on account of electricity consumed in the Premises. As of the date hereof, the Electricity Rent payable by Tenant is an amount per annum equal to \$2.00 times the Rentable Floor Area of the Premises. The Electricity Rent shall be reasonably adjusted by Landlord from time to time based on current rates for such service and Landlord's good faith estimate of the usage of electricity by occupants of the Building. If Landlord determines that the actual cost of providing electricity to the Premises exceeds the Electricity Rent, Landlord may (i) increase the Electricity Rent accordingly, or (ii) elect to separately meter or submeter electric service to the Premises, at Tenant's expense.

(ii) If the electric usage in the Premises is measured by a direct meter, such meter will include all convenience electricity as well as any air handling units or other HVAC equipment located within the Premises, and Tenant shall pay directly to the provider thereof, on or before the date when due and in addition to payments of Basic Rent and other additional rent provided for herein, the costs of all electricity used in the Premises.

(iii) If Landlord measures electricity or any other utility usage in the Premises by a submeter, such submeter will include all convenience electricity as well as any air handling units or other HVAC equipment located within the Premises, and Tenant shall pay the costs as shown on such submeter to Landlord (and at the rate or rates payable by Landlord to the applicable utility), as additional rent, within thirty (30) days after receipt of an invoice therefor.

(iv) If electricity or other services to the Premises are separately metered, and Tenant pays directly to the providing utility company(ies), Landlord shall have the right to require Tenant to provide Landlord with copies of bills from electricity, natural gas or similar energy providers (collectively, "Energy Providers") that Tenant receives from Energy Providers relating to Tenant's energy use at the Premises ("Energy Bills") within ten (10) Business Days after Landlord's written request. In addition, Tenant hereby authorizes Landlord to obtain copies of the Energy Bills directly from the Energy Provider(s), and Tenant hereby authorizes each Energy Provider to provide Energy Bills and related usage information directly to Landlord without Tenant's consent. From time to time within ten (10) Business Days after Landlord's request, Tenant shall execute and deliver to Landlord an agreement provided by Landlord authorizing the Energy Provider(s) to provide to Landlord Energy Bills and other information relating to Tenant's energy usage at the Premises. Landlord acknowledges that the information provided by the Energy Providers shall be used by Landlord in connection with Landlord's on-going energy and environmental conservation initiatives.

Tenant acknowledges that, in addition to the Electricity Rent, the Tenant shall pay its pro-rata share of the cost of furnishing electricity for the Building's common areas (including without limitation the cost of furnishing electricity for the cooling tower and tempering and circulating condenser water) and elevators as part of Operating Expenses. In any event, Tenant shall also pay separately for all telephone and any other utilities and services supplied and/or metered exclusively to the Premises or to Tenant, together with any taxes thereon.

(d) Tenant shall not at any time contract to purchase electricity from any provider other than the service provider from whom Landlord from time to time shall purchase electricity for the common areas of the Building, or give any such provider permission to install lines or other equipment, without in each case obtaining the Landlord's prior written consent. Landlord shall have no liability for the service to be provided by any provider, including without limitation any loss or interruption of service or any damages to Tenant or its business arising therefrom.

ARTICLE VIII

REAL ESTATE TAXES

- 8.1 PAYMENTS ON ACCOUNT OF REAL ESTATE TAXES. (a) For the purposes of this Article, the term "Tax Year" shall mean the twelve-month period commencing on the July 1 immediately preceding the Commencement Date and each twelve-month period thereafter commencing during the Term of this Lease; and the term "Taxes"

shall mean all taxes, assessments, betterments and other charges and impositions (including, but not limited to, fire protection service fees and similar charges) levied, assessed or imposed at any time during the Term by any governmental authority upon or against the Building, or taxes in lieu thereof, and additional types of taxes to supplement real estate taxes due to legal limits imposed thereon. If, at any time during the Term, any tax or excise on rents or other taxes, however described, are levied or assessed against Landlord with respect to the rent reserved hereunder, either wholly or partially in substitution for, or in addition to, real estate taxes assessed or levied on the Building, such tax or excise on rents shall be included in Taxes; however, Taxes shall not include franchise, estate, inheritance, succession, capital levy, transfer, income or excess profits taxes assessed on Landlord. Taxes shall include any estimated payment made by Landlord on account of a fiscal tax period for which the actual and final amount of taxes for such period has not been determined by the governmental authority as of the date of any such estimated payment.

(b) In the event that for any reason, Taxes during any Tax Year shall exceed Base Taxes, Tenant shall pay to Landlord, as an Escalation Charge, an amount equal to (i) the excess of Taxes over Base Taxes for such Tax Year, multiplied by (ii) the Escalation Factor, such amount to be apportioned for any portion of a Tax Year in which the Commencement Date falls or the Term of this Lease ends.

(c) Estimated payments by Tenant on account of Taxes shall be made on the first day of each and every calendar month during the Term of this Lease, and otherwise in the fashion herein provided for the payment of Basic Rent. The monthly amount so to be paid to Landlord shall be sufficient to provide Landlord by the time real estate tax payments are due with a sum equal to Tenant's required payments, as estimated by Landlord from time to time, on account of Taxes for the then current Tax Year. Promptly after receipt by Landlord of bills for such Taxes, Landlord shall advise Tenant of the amount thereof and the computation of Tenant's payment on account thereof. If estimated payments theretofore made by Tenant for the Tax Year covered by such bills exceed the required payments on account thereof for such Year, Landlord shall credit the amount of overpayment against subsequent obligations of Tenant on account of Taxes (or refund such overpayment if the Term of this Lease has ended and Tenant has no further obligation to Landlord); but if the required payments on account thereof for such Year are greater than estimated payments theretofore made on account thereof for such Year, Tenant shall make payment to Landlord within 30 days after being so advised by Landlord.

(d) Tenant shall pay all taxes charged, assessed or imposed upon the personal property of Tenant in or upon the Premises.

- 8.2 ABATEMENT. If Landlord shall receive any tax refund or reimbursement of Taxes or sum in lieu thereof with respect to any Tax Year, then out of any balance remaining thereof after deducting Landlord's expenses reasonably incurred in obtaining such refund, Landlord shall pay to Tenant, provided there does not then exist a Default of Tenant, an amount equal to such refund or reimbursement or sum in lieu thereof (exclusive of any interest) multiplied by the Escalation Factor; provided, that in no event, shall Tenant be entitled to receive more than the payments made by Tenant on account of Taxes for such Tax Year pursuant to paragraph (b) of Section 8.1 or to receive any payments or abatement of Basic Rent if Taxes for any year are less than Base Taxes or Base Taxes are abated. If a refund or reimbursement applies to Base Taxes, then Base Taxes shall be reduced by the amount of the reduction and Tenant's share of increases in Taxes shall be recalculated for all Tax Years following the year of the reduction based on the lower Base Taxes.
- 8.3 ALTERNATE TAXES. (a) If some method or type of taxation shall replace the current method of assessment of real estate taxes in whole or part, or the type thereof, or if additional types of taxes are imposed upon the Unit or the Park or Landlord, Tenant agrees that such taxes or other charges shall be deemed to be, and shall be, Taxes hereunder and Tenant shall pay an equitable share of the same as an additional charge computed in a fashion consistent with the method of computation herein provided, to the end that Tenant's share thereof shall be, to the maximum extent practicable, comparable to that which Tenant would bear under the foregoing provisions.
- (b) If a tax (other than a Federal or State net income tax) is assessed on account of the rents or other charges payable by Tenant to Landlord under this Lease, Tenant agrees to pay the same as an additional charge within ten (10) days after billing therefor, unless applicable law prohibits the payment of such tax by Tenant.

ARTICLE IX
OPERATING EXPENSES; UTILITIES

- 9.1 DEFINITIONS. (a) For the purposes of this Article, the following terms shall have the following respective meanings:

Operating Year: Each calendar year in which any part of the Term of this Lease shall fall.

Operating Expenses: all costs and expenses incurred for the operation, cleaning, maintenance, repair and upkeep of the Building and the Park, including, without limitation, all costs of maintaining and repairing the Building and Park (including, without limitation, security, elevators, lighting and any other Building equipment or systems) and costs to maintain an on-site management office and all costs of all repairs and replacements (other than repairs or replacements for which Landlord has received full reimbursement from other tenants of the Building or from others) necessary to

keep the Building and Park in good working order, repair, appearance and condition; all costs, including material and equipment costs, for cleaning and janitorial services to the Building (including window cleaning of the Building); all costs of any insurance carried by Landlord relating to the Building; all costs related to provision of heat (including oil, electric, steam and/or gas), air-conditioning, and water (including sewer charges and the private water supply company charges or assessments) and other utilities to the Building (exclusive of reimbursement to Landlord for any of same received as a result of direct billing to any tenant of the Building); payments under all service contracts relating to the foregoing; all compensation, fringe benefits, payroll taxes and workmen's compensation insurance premiums related thereto with respect to any employees of Landlord or its affiliates, or third party management company, engaged in security and maintenance of the Building; attorneys' fees and disbursements (exclusive of any such fees and disbursements incurred in tax abatement proceedings or the preparation of or negotiation of any leases) and auditing and other professional fees and expenses; all costs associated with those improvements, systems, signage, equipment, and installations that are designated by Landlord to serve or benefit the Park by facilitating the flow of traffic into or out of the Park, whether or not located within, adjacent to, or near the Park; and a reasonable management fee consistent with the local market in which the Building is located, not to exceed five percent (5%) of the rents for the Building, provided Operating Expenses shall not include (i) costs of capital repairs, improvements, and replacements, except to the extent specifically provided for in this Lease; (ii) expenses for tenant improvement work or allowances, inducements, and other concessions for any tenant; (iii) interest, amortization, or other payments on loans to Landlord; (iv) depreciation of the Building or other improvements; (v) ground rent; (vi) brokerage or leasing commissions; (vii) compensation paid to officers or executives of Landlord above the level of asset manager; (viii) income, gross receipts, excess profits, or franchise taxes imposed on Landlord; (ix) professional fees incurred in connection with preparing any lease (including Tenant's lease); (x) the cost of repairs, replacements, or improvements to the extent paid for by the proceeds of insurance, or that were paid for directly by Tenant or any third party; (xi) costs arising solely from the negligence or fault of Landlord, its agents, employees, invitees, or contractors; and (xii) advertising and promotional expenses for the purpose of marketing space in the Building.

(b) If, during the Term of this Lease, Landlord shall make a capital expenditure (i) for the purpose of primarily reducing Operating Expenses, or (ii) to replace obsolete operating equipment serving the Building, or (iii) in order to conform to any changes in any applicable laws, ordinances, rules or regulations of any governmental authority with jurisdiction over the Building that are first adopted or made applicable to the Building after the date hereof, the total cost of which is not properly includible in Operating Expenses for the Operating Year in which it was made, there shall nevertheless be included in such Operating Expenses for the Operating Year in which it was made and in Operating Expenses for each succeeding Operating Year the annual charge-off of such capital expenditure. Annual charge-off shall be determined by

dividing the original capital expenditure plus an interest factor, reasonably determined by Landlord, as being the interest rate then being charged for long-term mortgages by institutional lenders on like properties within the locality in which the Building is located, by the number of years of useful life of the capital expenditure; and the useful life shall be determined reasonably by Landlord in accordance with generally accepted accounting principles and practices in effect at the time of making such expenditure.

(c) If during any portion of any Operating Year (including without limitation the Base Year) for which Operating Expenses are being computed, less than ninety-five percent (95%) of the Building was occupied by tenants or if not all of such tenants were paying fixed rent or if Landlord was not supplying all tenants with the services being supplied hereunder, actual Operating Expenses incurred shall be reasonably extrapolated by Landlord to the estimated Operating Expenses that would have been incurred if ninety-five percent (95%) of the Building was occupied by tenants and all such tenants were then paying fixed rent or if such services were being supplied to all tenants, and such extrapolated amount shall, for the purposes of this Section 9.1, be deemed to be the Operating Expenses for such Operating Year. The Building is a part of the Park which contains other buildings and common areas and as such, Landlord shall allocate to the Building a proportionate share of those Operating Expenses which are incurred with respect to the Park (including, without limitation, snow removal, landscaping and grounds maintenance, operation and maintenance of the parking areas, fitness center, sidewalks, walking paths, access roads and landscaped islands located thereon, driveways, security, costs in connection with the operation of the cafeterias operated in the buildings of the Park, including subsidy programs, if any, and a management fee for the Park); provided, however, at such time as Landlord ceases to own all of the buildings in the Park, those Operating Expenses with respect to the Park shall be included as part of the common charges assessed or levied against the Building as part of the Condominium (as hereinafter defined), in which event such common charges shall be allocated in accordance with Section 14.27 below.

9.2 TENANT'S PAYMENTS. (a) In the event that, for any Operating Year, Operating Expenses shall exceed Base Operating Expenses, Tenant shall pay to Landlord, as an Escalation Charge, an amount equal to (i) such excess Operating Expenses multiplied by (ii) the Escalation Factor, such amount to be apportioned for any portion of an Operating Year in which the Commencement Date falls or the Term of this Lease ends. Notwithstanding the foregoing, Landlord agrees that, commencing with the second full calendar year of the Term of this Lease, Tenant will not be required to pay, on account of Landlord's Controllable Costs (as hereinafter defined) for any calendar year, more than one hundred five percent (105%) of the Landlord's Controllable Costs for the immediately preceding calendar year. For purposes of this Lease, the term "Landlord's Controllable Costs" shall be deemed to mean and refer to all Operating Expenses other than insurance premiums and deductibles, the cost of repairing damage to the extent not covered by Landlord's insurance policies, snow and ice removal costs (including without limitation plowing, sanding, and necessary pavement repairs),

permitted capital expenditures, all regulatory or governmentally imposed costs, fees and expenses, the cost of labor and benefits that are the subject of any collective bargaining or project labor agreement, and all utility costs (including, without limitation, water, sewer, electric, gas and oil charges). The foregoing 5% cap on Tenant's payments shall be cumulative, such that any amount not paid by Tenant during any year due to the operation of the cap, shall be carried forward to subsequent years and, in any subsequent year in which Landlord's Controllable Costs are less than 105% of those of the preceding year, the amount carried forward shall be added and paid by Tenant.

(b) Estimated payments by Tenant on account of Operating Expenses shall be made on the first day of each and every calendar month during the Term of this Lease, and otherwise in the fashion herein provided for the payment of Basic Rent. The monthly amount so to be paid to Landlord shall be sufficient to provide Landlord by the end of each Operating Year a sum equal to Tenant's required payments, as estimated by Landlord from time to time during each Operating Year, on account of Operating Expenses for such Operating Year. Within a reasonable time after the end of each Operating Year, Landlord shall submit to Tenant a reasonably detailed accounting of Operating Expenses for such Year, and Landlord shall certify to the accuracy thereof. If estimated payments theretofore made for such Year by Tenant exceed Tenant's required payment on account thereof for such Year, according to such statement, Landlord shall credit the amount of overpayment against subsequent obligations of Tenant with respect to Operating Expenses (or refund such overpayment if the Term of this Lease has ended and Tenant has no further obligation to Landlord); but, if the required payments on account thereof for such Year are greater than the estimated payments (if any) theretofore made on account thereof for such Year, Tenant shall make payment to Landlord within 30 days after being so advised by Landlord. Landlord shall have the same rights and remedies for the non-payment by Tenant of any payments due on account of Operating Expenses as Landlord has hereunder for the failure of Tenant to pay Basic Rent.

(c) Tenant shall have the right to examine and review copies of Landlord's statements and invoices establishing Operating Expenses for any Operating Year for a period of ninety (90) days following the date that Tenant receives the statement of Operating Expenses for such Operating Year from Landlord. Tenant shall give Landlord not less than thirty (30) days' prior written notice of its intention to examine such material, and such examination shall take place at such place within the continental United States as Landlord routinely maintains such books and records, unless Landlord elects to have such examination take place in another location designated by Landlord in the city and state in which the Property is located. As a condition to performing any such examination, Tenant and its examiners shall be required to execute and deliver to Landlord an agreement, in form reasonably acceptable to Landlord and Tenant, whereby Tenant agrees to keep confidential (except as may be necessary in connection with any legal or other proceeding to dispute Operating Expenses or except as may be

required by law) any information which it discovers about Landlord or the Building in connection with such examination. Such examination may be made only by a national recognized independent certified public accounting firm, or by a qualified and reputable consultant; provided however, that no examiner who is being paid on a contingent fee basis shall be permitted to conduct an examination of Landlord's books and records under this section. All costs of the examination shall be borne by Tenant. If, pursuant to such examination, the payments made for such Operating Year by Tenant exceed Tenant's required payment on account thereof for such Operating Year, Landlord shall credit the amount of overpayment against subsequent obligations of Tenant with respect to Operating Expenses (or promptly refund such overpayment if the Term of this Lease has ended and Tenant has no further obligation to Landlord); but, if the payments made by Tenant for such Operating Year are less than Tenant's required payment as established by such examination, Tenant shall pay the deficiency to Landlord within thirty (30) days after conclusion of the examination and audit, and the obligation to make such payment for any period within the Term shall survive expiration of the Term. If Tenant does not elect to exercise its right to examine Landlord's records for any Operating Year within the time period provided for by this paragraph, Tenant shall have no further right to challenge Landlord's statement of Operating Expenses for such Operating Year.

- 9.3 UTILITIES, ETC. Tenant shall pay Electricity Rent (as defined above) to Landlord for the cost of electricity furnished to or consumed on the Premises, as set forth above, all charges for any utilities supplied by Landlord that are separately metered, and all charges for telephone and other utilities or services not supplied by Landlord, whether designated as a charge, tax, assessment, fee or otherwise, all such charges to be paid as the same from time to time become due. Except as expressly provided in Article 7, it is understood and agreed that Tenant shall make its own arrangements for the installation or provision of all such utilities and that Landlord shall be under no obligation to furnish any utilities to the Premises and shall not be liable for any interruption or failure in the supply of any such utilities to the Premises.

ARTICLE X
INDEMNITY AND INSURANCE

- 10.1 INDEMNITY. To the maximum extent this agreement may be made effective according to law and subject to the waiver of subrogation, Tenant agrees to indemnify and save harmless Landlord from and against all claims, loss, cost, damage or expense of whatever nature arising: (i) from any accident, injury or damage whatsoever to any person, or to the property of any person, occurring in or about the Premises; (ii) from any accident, injury or damage occurring outside of the Premises where such accident, damage or injury results or is claimed to have resulted from an act or omission on the part of Tenant or Tenant's agents or employees or independent contractors; or (iii) in

connection with the conduct or management of the Premises or of any business therein, or any thing or work whatsoever done, or any condition created (other than by Landlord) in or about the Premises; and, in any case, occurring after the date of this Lease until the end of the Term of this Lease and thereafter so long as Tenant is in occupancy of any part of the Property. This indemnity and hold harmless agreement shall include indemnity against all losses, costs, damages, expenses and liabilities incurred in or in connection with any such claim or proceeding brought thereon, and the defense thereof, including, without limitation, reasonable attorneys' fees and costs at both the trial and appellate levels. The provisions of this Article shall survive the termination of this Lease with respect to any claims or liability accruing prior to such termination.

10.2 PUBLIC LIABILITY INSURANCE. (a) Tenant shall obtain and keep in force during the term of this Lease a commercial general liability policy of insurance with coverages acceptable to Landlord, in Landlord's reasonable discretion, which, by way of example and not limitation, protects Tenant and Landlord (as an additional insured) against claims for bodily injury, personal injury and property damage based upon, involving or arising out of the use, occupancy or maintenance of the Premises and all areas appurtenant thereto, and under which the insurer agrees to indemnify and hold Landlord, Agent and those in privity of estate with Landlord, harmless from and against all cost, expense and/or liability arising out of or based upon any and all claims, accidents, injuries and damages set forth in Section 10.1. Such insurance shall be written on an occurrence basis providing coverage in an amount not less than the amounts of the Initial Public Liability Insurance specified in Section 1.3 or such greater amounts as Landlord shall from time to time reasonably request, with an "Additional Insured-Managers and Landlords of Premises Endorsement" and contain the "Amendment of the Pollution Exclusion" for damage caused by heat, smoke or fumes from a hostile fire. The policy shall not contain any intra-insured exclusions as between insured persons or organizations, but shall include coverage for liability assumed under this Lease as an "insured contract" for the performance of Tenant's indemnity obligations under this Lease.

(b) Tenant shall, at all times during the term hereof, maintain the following insurance with coverages reasonably acceptable to Landlord: (i) workers' compensation insurance as required by applicable law, (ii) employers liability insurance with limits of at least \$1,000,000 per occurrence, (iii) automobile liability insurance for owned, non-owned and hired vehicles with limits of at least \$1,000,000 per occurrence and (iv) business interruption and extra expense insurance. In addition to the insurance required in (i), (ii), (iii) and (iv) above, Landlord shall have the right to require Tenant to increase the limits of its insurance and/or obtain such additional insurance as is customarily required by landlords owning similar real property in the geographical area of the Property.

- 10.3 TENANT'S RISK. Tenant agrees to use and occupy the Premises and to use such other portions of the Property as Tenant is herein given the right to use at Tenant's own risk. To the maximum extent this agreement may be made effective according to law, Landlord shall have no responsibility or liability for any loss of or damage to Tenant's Removable Property. Tenant shall obtain and keep in force during the term of this Lease "All Risk" extended coverage property insurance with coverages acceptable to Landlord, in Landlord's reasonable discretion. Said insurance shall be written on a one hundred percent (100%) replacement cost basis on Tenant's personal property, all tenant improvements installed at the Premises by Landlord or Tenant, Tenant's trade fixtures and other property. By way of example, and not limitation, such policies shall provide protection against All Risk Insurance' including vandalism and malicious mischief, theft and sprinkler leakage, Earthquake and Flood, if the Park is in Flood Zone A or V. Tenant's policy shall include endorsements to insure Tenant against losses to valuable papers, records and computer equipment and to compensate Tenant for the cost of recovering lost data. To the extent that Tenant's policy covers tenant improvements to the Premises, Landlord, and if applicable any lender or mortgagee of the landlord shall be a loss payee on such policy. The provisions of this Section 10.3 shall be applicable from and after the execution of this Lease and until the end of the Term of this Lease, and during such further period as Tenant may use or be in occupancy of any part of the Premises or of the Building.
- 10.4 CERTIFICATES, CANCELLATION, ETC. Tenant shall deliver to Landlord certificates of the insurance policies required above concurrently with Tenant's execution of this Lease using Evidence of Property Insurance, ACORD 28 and Commercial General Liability Acord 25. Tenant's insurance policies shall not be cancelable or subject to reduction of coverage or other modification except after thirty (30) days prior written notice to Landlord. Tenant shall, at least thirty (30) days prior to the expiration of such policies, furnish Landlord with renewals thereof. Tenant's insurance policies shall be issued by insurance companies authorized to do business in the state in which the Property is located, and said companies shall maintain during the policy term a "General Policyholder's Rating" of at least A and a financial rating of at least "Class X" (or such other rating as may be required by any lender having a lien on the Park) as set forth in the most recent edition of "Best Insurance Reports." All insurance obtained by Tenant shall be primary to and not contributory with any similar insurance carried by Landlord, whose insurance shall be considered excess insurance only. Landlord, Landlord's property manager and lender(s) and their respective officers, shareholders, directors, partners, members, managers, employees, successors and assigns, shall be included as additional insureds under Tenant's commercial general liability policy, the pollution liability policy and under the Tenant's excess or umbrella policy, if any, using ISO additional insured endorsement CG 20 24. Tenant's insurance policies shall not include deductibles in excess of \$5,000. Landlord makes no representation to Tenant that the limits or forms of coverage specified above or approved by Landlord are adequate to insure Tenant's property or Tenant's obligations under this Lease, and the limits of and insurance carried by Tenant shall not limit Tenant's obligations or liability under any indemnity provision included in this Lease or under any other provision of this Lease.

- 10.5 INJURY CAUSED BY THIRD PARTIES. To the maximum extent this agreement may be made effective according to law, Tenant agrees that Landlord shall not be responsible or liable to Tenant, or to those claiming by, through or under Tenant, for any loss or damage that may be occasioned by or through the acts or omissions of persons occupying adjoining premises or any part of the premises adjacent to or connecting with the Premises or any part of the Property or otherwise.

ARTICLE XI
LANDLORD'S ACCESS TO PREMISES

- 11.1 LANDLORD'S RIGHTS. Landlord shall have the right to enter the Premises at all reasonable hours for the purpose of inspecting or making repairs to the same, and Landlord shall also have the right to make access available at all reasonable hours to prospective or existing mortgagees, purchasers or tenants of any part of the Building or the Park.

ARTICLE XII
FIRE, EMINENT DOMAIN, ETC.

- 12.1 ABATEMENT OF RENT. If the Premises shall be damaged by fire or casualty, Basic Rent and Escalation Charges payable by Tenant shall abate proportionately for the period, if any, in which, by reason of such damage, there is substantial interference with Tenant's use of the Premises, having regard for the extent to which Tenant may be required to discontinue Tenant's use of all or a portion of the Premises, but such abatement or reduction shall end if and when Landlord shall have substantially restored the Premises (excluding any alterations, additions or improvements made by Tenant pursuant to Section 5.2) to the condition in which they were prior to such damage. If the Premises shall be affected by any exercise of the power of eminent domain, Basic Rent and Escalation Charges payable by Tenant shall be justly and equitably abated and reduced according to the nature and extent of the loss of use thereof suffered by Tenant. In no event shall Landlord have any liability for damages to Tenant for inconvenience, annoyance, or interruption of business arising from such fire, casualty or eminent domain.
- 12.2 LANDLORD'S RIGHT OF TERMINATION. If the Premises or the Building are substantially damaged by fire or casualty (the term "substantially damaged" meaning damage of such a character that the same cannot, in ordinary course, reasonably be expected to be repaired within sixty (60) days from the time that repair work would commence), or if any part of the Building is taken by any exercise of the right of eminent domain, then Landlord shall have the right to terminate this Lease (even if Landlord's entire interest in the Premises may have been divested) by giving notice of Landlord's election so to do within 90 days after the occurrence of such casualty or the effective date of such taking, whereupon this Lease shall terminate 30 days after the date of such notice with the same force and effect as if such date were the date originally established as the expiration date hereof.

- 12.3 **RESTORATION.** If this Lease shall not be terminated pursuant to Section 12.2, Landlord shall thereafter use due diligence to restore the Premises (excluding any alterations, additions or improvements made by Tenant pursuant to Section 5.2) to proper condition for Tenant's use and occupation, provided that Landlord's obligation shall be limited to the amount of insurance proceeds available therefor. If, for any reason, such restoration shall not be substantially completed within six months after the expiration of the 90-day period referred to in Section 12.2 (which six-month period may be extended for such periods of time as Landlord is prevented from proceeding with or completing such restoration for any cause beyond Landlord's reasonable control, but in no event for more than an additional three months), Tenant shall have the right to terminate this Lease by giving notice to Landlord thereof within thirty (30) days after the expiration of such period (as so extended) provided that such restoration is not completed within such period. This Lease shall cease and come to an end without further liability or obligation on the part of either party thirty (30) days after such giving of notice by Tenant unless, within such 30-day period, Landlord substantially completes such restoration. Such right of termination shall be Tenant's sole and exclusive remedy at law or in equity for Landlord's failure so to complete such restoration, and time shall be of the essence with respect thereto.
- 12.4 **AWARD.** Landlord shall have and hereby reserves and excepts, and Tenant hereby grants and assigns to Landlord, all rights to recover for damages to the Unit and the Park and the leasehold interest hereby created, and to compensation accrued or hereafter to accrue by reason of such taking, damage or destruction, and by way of confirming the foregoing, Tenant hereby grants and assigns, and covenants with Landlord to grant and assign to Landlord, all rights to such damages or compensation, and covenants to deliver such further assignments and assurances thereof as Landlord may from time to time request, and Tenant hereby irrevocably appoints Landlord its attorney-in-fact to execute and deliver in Tenant's name all such assignments and assurances. Nothing contained herein shall be construed to prevent Tenant from prosecuting in any condemnation proceedings a claim for the value of any of Tenant's Removable Property installed in the Premises by Tenant at Tenant's expense and for relocation expenses, provided that such action shall not affect the amount of compensation otherwise recoverable by Landlord from the taking authority.

ARTICLE XIII
DEFAULT

13.1 TENANT'S DEFAULT. (a) If at any time subsequent to the date of this Lease any one or more of the following events (herein referred to as a "Default of Tenant") shall happen:

- (i) Tenant shall fail to pay the Basic Rent, Escalation Charges or additional charges hereunder when due and such failure shall continue for three (3) full Business Days after notice to Tenant from Landlord; or
- (ii) Tenant shall neglect or fail to perform or observe any other covenant herein contained on Tenant's part to be performed or observed and Tenant shall fail to remedy the same within thirty (30) days after notice to Tenant specifying such neglect or failure, or if such failure is of such a nature that Tenant cannot reasonably remedy the same within such thirty (30) day period, Tenant shall fail to commence promptly to remedy the same and to prosecute such remedy to completion with diligence and continuity; or
- (iii) Tenant's leasehold interest in the Premises shall be taken on execution or by other process of law directed against Tenant; or
- (iv) Tenant shall make an assignment for the benefit of creditors or shall be adjudicated insolvent, or shall file any petition or answer seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution or similar relief for itself under any present or future Federal, State or other statute, law or regulation for the relief of debtors (other than the Bankruptcy Code, as hereinafter defined), or shall seek or consent to or acquiesce in the appointment of any trustee, receiver or liquidator of Tenant or of all or any substantial part of its properties, or shall admit in writing its inability to pay its debts generally as they become due; or
- (v) An Event of Bankruptcy (as hereinafter defined) shall occur with respect to Tenant; or
- (vi) A petition shall be filed against Tenant under any law (other than the Bankruptcy Code) seeking any reorganization, arrangement, composition, readjustment, liquidation, dissolution, or similar relief under any present or future Federal, State or other statute, law or regulation and shall remain undismissed or unstayed for an aggregate of sixty (60) days (whether or not consecutive), or if any trustee, conservator, receiver or liquidator of Tenant or of all or any substantial part of its properties shall be appointed without the consent or acquiescence of Tenant and such appointment shall remain unvacated or unstayed for an aggregate of sixty (60) days (whether or not consecutive); or

(vii) If: (x) Tenant shall fail to pay the Basic Rent, Escalation Charges, additional charges or other charges hereunder when due or shall fail to perform or observe any other covenant herein contained on Tenant's part to be performed or observed and Tenant shall cure any such failure within the applicable grace period set forth in clauses (i) or (ii) above; or (y) a Default of Tenant of the kind set forth in clauses (i) or (ii) above shall occur and Landlord shall, in its sole discretion, permit Tenant to cure such Default after the applicable grace period has expired; and a similar failure or Default shall occur more than twice within the next 365 days (whether or not such similar failure is cured within the applicable grace period);

then in any such case Landlord may terminate this Lease by notice to Tenant, specifying a date not less than five (5) days after the giving of such notice on which this Lease shall terminate and this Lease shall come to an end on the date specified therein as fully and completely as if such date were the date herein originally fixed for the expiration of the Term of this Lease, and Tenant will then quit and surrender the Premises to Landlord, but Tenant shall remain liable as hereinafter provided.

(b) For purposes of clause (a)(v) above, an "Event of Bankruptcy" means the filing of a voluntary petition by Tenant, or the entry of an order for relief against Tenant, under Chapter 7, 11, or 13 of the Bankruptcy Code, and the term "Bankruptcy Code" means 11 U.S.C Sec. 101, et seq. If an Event of Bankruptcy occurs, then the trustee of Tenant's bankruptcy estate or Tenant as debtor-in-possession may (subject to final approval of the court) assume this Lease, and may subsequently assign it, only if it does the following within 60 days after the date of the filing of the voluntary petition, the entry of the order for relief (or such additional time as a court of competent jurisdiction may grant, for cause, upon a motion made within the original 60-day period):

(i) file a motion to assume the Lease with the appropriate court;

(ii) satisfy all of the following conditions, which Landlord and Tenant acknowledge to be commercially reasonable:

(A) cure all Defaults of Tenant under this Lease or provide Landlord with Adequate Assurance (as defined below) that it will
(x) cure all monetary Defaults of Tenant hereunder within 10 days from the date of the assumption; and (y) cure all nonmonetary Defaults of Tenant hereunder within 30 days from the date of the assumption;

(B) compensate Landlord and any other person or entity, or provide Landlord with Adequate Assurance that within 10 days after the date of the assumption, it will compensate Landlord and such other person or entity, for any pecuniary loss that Landlord and such other person or entity incurred as a result of any Default of Tenant, the trustee, or the debtor-in-possession;

(C) provide Landlord with Adequate Assurance of Future Performance (as defined below) of all of Tenant's obligations under this Lease; and

(D) deliver to Landlord a written statement that the conditions herein have been satisfied.

(c) For purposes only of the foregoing paragraph (b), and in addition to any other requirements under the Bankruptcy Code, any future federal bankruptcy law and applicable case law, "Adequate Assurance" means at least meeting the following conditions, which Landlord and Tenant acknowledge to be commercially reasonable:

(i) entering an order segregating sufficient cash to pay Landlord and any other person or entity under paragraph (b) above, and

(ii) granting to Landlord a valid first lien and security interest (in form acceptable to Landlord) in all property comprising the Tenant's "property of the estate," as that term is defined in Section 541 of the Bankruptcy Code, which lien and security interest secures the trustee's or debtor-in-possession's obligation to cure the monetary and nonmonetary defaults under the Lease within the periods set forth in paragraph (b) above;

(d) For purposes only of paragraph (b), and in addition to any other requirements under the Bankruptcy Code, any future federal bankruptcy law and applicable case law, "Adequate Assurance of Future Performance" means at least meeting the following conditions, which Landlord and Tenant acknowledge to be commercially reasonable:

(i) the trustee or debtor-in-possession depositing with Landlord, as security for the timely payment of rent and other monetary obligations, an amount equal to the sum of two (2) months' Basic Rent plus an amount equal to two (2) months' installments on account of Operating Expenses and Taxes, computed in accordance with Articles 8 and 9;

(ii) the trustee or the debtor-in-possession agreeing to pay in advance, on each day that the Basic Rent is payable, the monthly installments on account of Operating Expenses and Taxes, computed in accordance with Articles 8 and 9 hereof;

(iii) the trustee or debtor-in-possession providing adequate assurance of the source of the rent and other consideration due under this Lease;

(iv) Tenant's bankruptcy estate and the trustee or debtor-in-possession providing Adequate Assurance that the bankruptcy estate (and any successor after the conclusion of the Tenant's bankruptcy proceedings) will continue to have sufficient unencumbered assets after the payment of all secured obligations and administrative expenses to assure Landlord that the bankruptcy estate (and any successor after the conclusion of the Tenant's bankruptcy proceedings) will have sufficient funds to fulfill Tenant's obligations hereunder; and

(e) If the trustee or the debtor-in-possession assumes the Lease under paragraph (b) above and applicable bankruptcy law, it may assign its interest in this Lease only if the proposed assignee first provides Landlord with Adequate Assurance of Future Performance of all of Tenant's obligations under the Lease, and if Landlord determines, in the exercise of its reasonable business judgment, that the assignment of this Lease will not breach any other lease, or any mortgage, financing agreement, or other agreement relating to the Building or the Park by which Landlord or the Building or the Park is then bound (and Landlord shall not be required to obtain consents or waivers from any third party required under any lease, mortgage, financing agreement, or other such agreement by which Landlord is then bound).

(f) For purposes only of paragraph (e) above, and in addition to any other requirements under the Bankruptcy Code, any future federal bankruptcy law and applicable case law, "Adequate Assurance of Future Performance" means at least the satisfaction of the following conditions, which Landlord and Tenant acknowledge to be commercially reasonable:

(i) the proposed assignee submitting a current financial statement, audited by a certified public accountant, that allows a net worth and working capital in amounts determined in the reasonable business judgment of Landlord to be sufficient to assure the future performance by the assignee of Tenant's obligation under this Lease; and

(ii) if requested by Landlord in the exercise of its reasonable business judgment, the proposed assignee obtaining a guarantee (in form and substance satisfactory to Landlord) from one or more persons who satisfy Landlord's standards of creditworthiness;

(g) If this Lease shall have been terminated as provided in this Article, or if any execution or attachment shall be issued against Tenant or any of Tenant's property whereupon the Premises shall be taken or occupied by someone other than Tenant, then Landlord may re-enter the Premises, either by summary proceedings, ejectment or otherwise, and remove and dispossess Tenant and all other persons and any and all property from the same, as if this Lease had not been made.

(h) In the event of any termination, Tenant shall pay the Basic Rent, Escalation Charges and other sums payable hereunder up to the time of such termination, and thereafter Tenant, until the end of what would have been the Term of this Lease in the absence of such termination, and whether or not the Premises shall have been relet, shall be liable to

Landlord for, and shall pay to Landlord, as liquidated current damages: (x) the Basic Rent, Escalation Charges and other sums that would be payable hereunder if such termination had not occurred, less the net proceeds, if any, of any reletting of the Premises, after deducting all expenses in connection with such reletting, including, without limitation, all repossession costs, brokerage commissions, legal expenses, attorneys' fees, advertising, expenses of employees, alteration costs and expenses of preparation for such reletting; and (y) if, in accordance with Section 3.1(a), Tenant commenced payment of the full amount of Basic Rent on any day other than the Commencement Date, the amount of Basic Rent that would have been payable during the period beginning on the Commencement Date and ending on the day Tenant commenced payment of the full amount of Basic Rent under such Section 3.1(a). Tenant shall pay the portion of such current damages referred to in clause (x) above to Landlord monthly on the days which the Basic Rent would have been payable hereunder if this Lease had not been terminated, and Tenant shall pay the portion of such current damages referred to in clause (y) above to Landlord upon such termination.

(i) At any time after such termination, whether or not Landlord shall have collected any such current damages, as liquidated final damages and in lieu of all such current damages beyond the date of such demand, at Landlord's election Tenant shall pay to Landlord an amount equal to the excess, if any, of the Basic Rent, Escalation Charges and other sums as hereinbefore provided which would be payable hereunder from the date of such demand assuming that, for the purposes of this paragraph, annual payments by Tenant on account of Taxes and Operating Expenses would be the same as the payments required for the immediately preceding Operating or Tax Year for what would be the then unexpired Term of this Lease if the same remained in effect, over the then fair net rental value of the Premises for the same period, discounted to then net present value at 2% per annum.

(j) In case of any Default of Tenant, re-entry, expiration and dispossession by summary proceedings or otherwise, Landlord may (i) re-let the Premises or any part or parts thereof, either in the name of Landlord or otherwise, for a term or terms which may at Landlord's option be equal to or less than or exceed the period which would otherwise have constituted the balance of the Term of this Lease and may grant concessions or free rent to the extent that Landlord considers advisable and necessary to re-let the same and (ii) may make such reasonable alterations, repairs and decorations in the Premises as Landlord in its sole judgment considers advisable and necessary for the purpose of reletting the Premises; and the making of such alterations, repairs and decorations shall not operate or be construed to release Tenant from liability hereunder as aforesaid. Landlord shall in no event be liable in any way whatsoever for failure to re-let the Premises, or, in the event that the Premises are re-let, for failure to collect the rent under such re-letting. Tenant hereby expressly waives any and all rights of redemption granted by or under any present or future laws in the event of Tenant being evicted or dispossessed, or in the event of Landlord obtaining possession of the Premises, by reason of the violation by Tenant of any of the covenants and conditions of this Lease.

(k) If a Guarantor of this Lease is named in Section 1.2, the happening of any of the events described in paragraphs (a)(iv)-(a)(vi) of this Section 13.1 with respect to the Guarantor shall constitute a Default of Tenant hereunder.

(l) The specified remedies to which Landlord may resort hereunder are not intended to be exclusive of any remedies or means of redress to which Landlord may at any time be entitled lawfully, and Landlord may invoke any remedy (including the remedy of specific performance) allowed at law or in equity as if specific remedies were not herein provided for.

(m) All costs and expenses incurred by or on behalf of Landlord (including, without limitation, attorneys' fees and expenses at both the trial and appellate levels) in enforcing its rights hereunder or occasioned by any breach of this Lease by Tenant or any Default of Tenant shall be paid by Tenant.

- 13.2 LANDLORD'S DEFAULT. Landlord shall in no event be in default in the performance of any of Landlord's obligations hereunder unless and until Landlord shall have failed to perform such obligations within thirty (30) days, or such additional time as is reasonably required to correct any such default, after notice by Tenant to Landlord specifying wherein Landlord has failed to perform any such obligations.

ARTICLE XIV

MISCELLANEOUS PROVISIONS

- 14.1 EXTRA HAZARDOUS USE. Tenant covenants and agrees that Tenant will not do or permit anything to be done in or upon the Premises, or bring in anything or keep anything therein, which shall increase the rate of property or liability insurance on the Premises, the Unit or the Park above the standard rate applicable to Premises being occupied for Permitted Uses; and Tenant further agrees that, in the event that Tenant shall do any of the foregoing, Tenant will promptly pay to Landlord, on demand, any such increase resulting therefrom, which shall be due and payable as an additional charge hereunder.
- 14.2 WAIVER. (a) Failure on the part of Landlord to complain of any action or non-action on the part of Tenant, no matter how long the same may continue, shall never be a waiver by Landlord of any of its rights hereunder. Further, no waiver at any time of any of the provisions hereof by Landlord shall be construed as a waiver of any of the other provisions hereof, and a waiver at any time of any of the provisions hereof shall not be construed as a waiver at any subsequent time of the same provisions. The consent or approval of Landlord to or of any action by Tenant requiring such consent or approval shall not be construed to waive or render unnecessary Landlord's consent or approval to or of any subsequent similar act by Tenant.

(b) No payment by Tenant, or acceptance by Landlord, of a lesser amount than shall be due from Tenant to Landlord shall be treated otherwise than as a payment on account of the earliest installment of any payment due from Tenant under the provisions hereof. The acceptance by Landlord of a check for a lesser amount with an endorsement or statement thereon, or upon any letter accompanying such check, that such lesser amount is payment in full, shall be given no effect, and Landlord may accept such check (whether or not with knowledge of any breach by Tenant) without prejudice to any other rights or remedies which Landlord may have against Tenant.

14.3 COVENANT OF QUIET ENJOYMENT. Tenant, subject to the terms and provisions of this Lease, on payment of the Basic Rent and Escalation Charges and observing, keeping and performing all of the other terms and provisions of this Lease on Tenant's part to be observed, kept and performed, shall lawfully, peaceably and quietly have, hold, occupy and enjoy the Premises during the term hereof, without hindrance or ejection by any persons lawfully claiming under Landlord to have title to the Premises superior to Tenant; the foregoing covenant of quiet enjoyment is in lieu of any other covenant, express or implied.

14.4 LANDLORD'S LIABILITY. (a) Tenant specifically agrees to look solely to Landlord's then equity interest in the Building at the time owned, for recovery of any judgment from Landlord; it being specifically agreed that Landlord (original or successor) shall never be personally liable for any such judgment, or for the payment of any monetary obligation to Tenant. The provision contained in the foregoing sentence is not intended to, and shall not, limit any right that Tenant might otherwise have to obtain injunctive relief against Landlord or Landlord's successors in interest, or to take any action not involving the personal liability of Landlord (original or successor) to respond in monetary damages from Landlord's assets other than Landlord's equity interest in the Building.

(b) With respect to any services, repairs or utilities to be furnished by Landlord to Tenant, or any other obligation to be performed by Landlord, Landlord shall in no event be liable for failure to furnish or perform the same when prevented from doing so by so-called act of god, or by strike, lockout, breakdown, accident, order or regulation of or by any governmental authority, act or threatened act of terrorism, civil commotion or unrest, governmental order or restriction or failure of ready supply, or failure whenever and for so long as may be necessary by reason of the making of repairs or changes which Landlord is required or is permitted by this Lease or by law to make or in good faith deems necessary, or inability by the exercise of reasonable diligence to obtain supplies, parts or employees necessary to furnish such services, or because of war or other emergency, or for any other cause beyond Landlord's reasonable control (the foregoing circumstances being individually and collectively

referred to as "Force Majeure"), or for any cause due to any act or neglect of Tenant or Tenant's servants, agents, employees, licensees or any person claiming by, through or under Tenant; nor shall any such failure give rise to any claim in Tenant's favor that Tenant has been evicted, either constructively or actually, partially or wholly.

(c) In no event shall Landlord ever be liable to Tenant for any loss of business or any other indirect, punitive or consequential damages suffered or claimed by Tenant from whatever cause.

(d) Where provision is made in this Lease for Landlord's consent and Tenant shall request such consent and Landlord shall fail or refuse to give such consent, Tenant shall not be entitled to any damages for any withholding by Landlord of its consent, it being intended that Tenant's sole remedy shall be an action for specific performance or injunction, and that such remedy shall be available only in those cases where Landlord has expressly agreed in writing not to unreasonably withhold its consent. Any claim, demand, right or defense by Tenant that arises out of this Lease or the negotiations which preceded this Lease shall be barred unless Tenant commences an action thereon, or interposes a defense by reason thereof, within six (6) months after the date of the inaction, omission, event or action that gave rise to such claim, demand, right or defense. Furthermore, whenever Tenant requests Landlord's consent or approval (whether or not provided for herein), Tenant shall pay to Landlord, on demand, as an additional charge, any expenses reasonably incurred by Landlord (including without limitation legal fees and costs, if any) in connection therewith.

(e) With respect to any repairs or restoration which are required or permitted to be made by Landlord, the same may be made during normal business hours and Landlord shall have no liability for damages to Tenant for inconvenience, annoyance or interruption of business arising therefrom. In the course of any such activity, Landlord agrees to use commercially reasonable efforts not to unreasonably interfere with Tenant's business operations.

(f) In no event shall Tenant have the right to terminate this Lease as a result of Landlord's default under or breach of this Lease, and Tenant's remedies shall be limited to damages and/or an injunction as expressly set forth above. This Lease and the obligations of Tenant hereunder shall not be affected or impaired because Landlord is unable to fulfill any of its obligations hereunder or is delayed in doing so, if such inability or delay is caused by reason of a Force Majeure event, and the time for Landlord's performance shall be extended for the period of any such delay. Each provision of this Lease constitutes an independent covenant, enforceable separately from each other covenant hereof. To the extent any provision hereof or any application of any provision hereof may be declared unenforceable, such provision or application shall not affect any other provision hereof or other application of such provision. Tenant acknowledges and agrees that Tenant's obligation to pay Basic Rent and Escalation Charges is independent of any and all obligations of Landlord hereunder.

- 14.5 NOTICE TO MORTGAGEE OR GROUND LESSOR. After receiving notice from any person, firm or other entity that it holds a mortgage or a ground lease which includes the Premises, no notice from Tenant to Landlord alleging any default by Landlord shall be effective unless and until a copy of the same is given to such holder or ground lessor (provided Tenant shall have been furnished with the name and address of such holder or ground lessor), and the curing of any of Landlord's defaults by such holder or ground lessor shall be treated as performance by Landlord.
- 14.6 ASSIGNMENT OF RENTS AND TRANSFER OF TITLE. (a) With reference to any assignment by Landlord of Landlord's interest in this Lease, or the rents payable hereunder, conditional in nature or otherwise, which assignment is made to the holder of a mortgage on property which includes the Premises, Tenant agrees that the execution thereof by Landlord, and the acceptance thereof by the holder of such mortgage shall never be treated as an assumption by such holder of any of the obligations of Landlord hereunder unless such holder shall, by notice sent to Tenant, specifically otherwise elect and that, except as aforesaid, such holder shall be treated as having assumed Landlord's obligations hereunder only upon foreclosure of such holder's mortgage and the taking of possession of the Premises.
- (b) In no event shall the acquisition of Landlord's interest in the Building or the Park by a purchaser which, simultaneously therewith, leases Landlord's entire interest in the Building or the Park (as the case may be) back to the seller thereof be treated as an assumption by operation of law or otherwise, of Landlord's obligations hereunder, but Tenant shall look solely to such seller-lessee, and its successors from time to time in title, for performance of Landlord's obligations hereunder. In any such event, this Lease shall be subject and subordinate to the lease to such purchaser. For all purposes, such seller-lessee, and its successors in title, shall be the Landlord hereunder unless and until Landlord's position shall have been assumed by such purchaser-lessor.
- (c) Except as provided in paragraph (b) of this Section, in the event of any transfer of title to the Building by Landlord, Landlord shall thereafter be entirely freed and relieved from the performance and observance of all covenants and obligations hereunder.
- 14.7 RULES AND REGULATIONS. Tenant shall abide by rules and regulations set forth in Exhibit D, and those from time to time established by Landlord (the "Rules"), it being agreed that Landlord will use reasonable efforts to apply such Rules in a non-discriminatory fashion, such that Rules and regulations shall be generally applicable to Tenant and other office tenants of similar nature to the Tenant named herein, of the Building. Landlord agrees to use reasonable efforts to insure that any such rules and regulations are uniformly enforced, but Landlord shall not be liable to Tenant for violation of the same by any other tenant or occupant of the Building, or persons having business with them. In the event that there shall be a conflict between such rules and regulations and the provisions of this Lease, the provisions of this Lease shall control.

- 14.8 ADDITIONAL CHARGES. If Tenant shall fail to pay when due any sums under this Lease designated as an Escalation Charge, additional rent or additional charge, Landlord shall have the same rights and remedies as Landlord has hereunder for failure to pay Basic Rent.
- 14.9 INVALIDITY OF PARTICULAR PROVISIONS. If any term or provision of this Lease, or the application thereof to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term or provision to persons or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected thereby, and each term and provision of this Lease shall be valid and be enforced to the fullest extent permitted by law.
- 14.10 PROVISIONS BINDING, ETC. Except as herein otherwise provided, the terms hereof shall be binding upon and shall inure to the benefit of the successors and assigns, respectively, of Landlord and Tenant (except in the case of Tenant, only such assigns as may be permitted hereunder) and, if Tenant shall be an individual, upon and to his heirs, executors, administrators, successors and permitted assigns. Each term and each provision of this Lease to be performed by Tenant shall be construed to be both a covenant and a condition. The reference contained to successors and assigns of Tenant is not intended to constitute a consent to assignment by Tenant, but has reference only to those instances in which Landlord may later give consent to a particular assignment as required by those provisions of Article VI hereof.
- 14.11 RECORDING. Tenant agrees not to record this Lease, but, if the Term of this Lease (including any extended term) is seven (7) years or longer, each party hereto agrees, on the request of the other, to execute a so-called notice of lease in recordable form and complying with applicable law and reasonably satisfactory to Landlord's attorneys. In no event shall such document set forth the rent or other charges payable by Tenant under this Lease; and any such document shall expressly state that it is executed pursuant to the provisions contained in this Lease, and is not intended to vary the terms and conditions of this Lease.
- 14.12 NOTICES. Whenever, by the terms of this Lease, notices shall or may be given either to Landlord or to Tenant, such notice shall be in writing and shall be delivered by hand (with a receipt), or sent by certified mail, postage prepaid, return receipt requested, or by reputable overnight or express delivery service for next Business Day delivery:

If intended for Landlord, addressed to Landlord c/o TA Associates Realty, 28 State Street, Boston, MA 02109, Attn: Totten Pond Asset Manager, with a copy to Langer & McLaughlin, LLP, 535 Boylston Street, Boston, MA 02116, Attn: TA Waltham Leasing (or in either case to such other address or addresses as may from time to time hereafter be designated by Landlord by like notice).

If intended for Tenant, addressed to Tenant at Imaging Endpoints, LLC 9700 N. 91st St., Scottsdale, AZ 85258, Attn: Doug Burkett, with a copy to Arboleda Brechner, PLC, 4545 E Shea Blvd. Ste., 120, Phoenix, AZ 85028, Attn: Carlos Arboleda (or to such other address or addresses as may from time to time hereafter be designated by Tenant by like notice).

All such notices delivered by hand shall be effective on delivery (or attempted delivery during business hours), and any notices sent by certified mail shall be effective on the third (3rd) Business Day after deposit in the United States Mail within the Continental United States, and any notice sent by overnight or express delivery service for next Business Day delivery shall be effective on the next Business Day.

14.13 WHEN LEASE BECOMES BINDING; COUNTERPARTS. (a) The mailing, delivery or negotiation of this Lease shall not be deemed an offer by Landlord to enter into any transaction or to enter into any relationship with Tenant, whether on the terms contained herein or on any other terms. This Lease shall not be binding upon Landlord or Tenant, nor shall Landlord nor Tenant have any obligations or liabilities with respect thereto, or with respect to the Premises, unless and until Landlord and Tenant executes and delivers this Lease. Until such execution and delivery of this Lease by Landlord and Tenant, Landlord or Tenant may terminate all negotiation and discussion of the subject matter hereof, without causes and for any reason, without recourse or liability. All negotiations, considerations, representations and understandings between Landlord and Tenant are incorporated herein and this Lease expressly supersedes any proposals or other written documents relating hereto. This Lease may be modified or altered only by written agreement between Landlord and Tenant, and no act or omission of any employee or agent of Landlord shall alter, change or modify any of the provisions hereof.

(b) This Lease may be executed in one or more counterparts, and by different parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties acknowledge and agree that this Lease may be executed via facsimile or .pdf format (including computer-scanned or other electronic reproduction of the actual signatures) and that delivery of a facsimile or other signature by electronic or physical means shall be effective to the same extent as delivery of an original signature. Notwithstanding the foregoing, originally signed documents shall be provided upon either party's request.

14.14 PARAGRAPH HEADINGS. The paragraph headings throughout this instrument are for convenience and reference only, and the words contained therein shall in no way be held to explain, modify, amplify or aid in the interpretation, construction or meaning of the provisions of this Lease. The provisions of this Lease shall be construed as a

whole, according to their common meaning (except where the intent to have a precise legal interpretation applied is clearly evidenced), and not for or against either party. Use in this Lease of the words "including," "such as" or words of similar import, when followed by any general term, statement or matter, shall not be construed to limit such term, statement or matter to the specified item(s), whether or not language of non-limitation, such as "without limitation" or "including, but not limited to," or words of similar import, are used with reference thereto, but rather shall be deemed to refer to all other terms or matters that could fall within a reasonably broad scope of such term, statement or matter.

- 14.15 **RIGHTS OF MORTGAGEE OR GROUND LESSOR.** This Lease shall be subordinate to any mortgage or ground lease from time to time encumbering the Premises, whether executed and delivered prior to or subsequent to the date of this Lease, if the holder of such mortgage or ground lease shall so elect. If this Lease is subordinate to any mortgage or ground lease and the holder thereof (or successor) shall succeed to the interest of Landlord, at the election of such holder (or successor) Tenant shall attorn to such holder and this Lease shall continue in full force and effect between such holder (or successor) and Tenant. Tenant agrees to execute such instruments of subordination or attornment in confirmation of the foregoing agreement as such holder may request, and Tenant hereby appoints such holder as Tenant's attorney-in-fact to execute such subordination or attornment agreement upon default of Tenant in complying with such holder's request. In no event shall the holder of any mortgage or ground lease ever: (A) be liable for any act or omission of Landlord hereunder occurring prior to such holder's succession to Landlord's interest hereunder; or (B) be subject to any defense or offset accruing in favor of the Tenant against Landlord prior to such holder's succession to Landlord's interest hereunder; or (C) be bound by any modification of this Lease made without such holder's written consent or by any prepayment of more than one month's rent.
- 14.16 **STATUS REPORT.** Upon not less than ten (10) Business Days' prior written request by Landlord, to execute, acknowledge and deliver to Landlord a statement in writing, which may be in the form attached hereto as Exhibit F or in another form reasonably similar thereto, or such other form as Landlord may provide from time to time, certifying all or any of the following: (i) whether this Lease is unmodified and in full force and effect, (ii) whether the Term has commenced and Basic Rent and Additional Rent have become payable hereunder and, if so, the dates to which they have been paid, (iii) whether or not Landlord is in default in performance of any of the terms of this Lease, (iv) whether Tenant has accepted possession of the Premises, (v) whether Tenant has made any claim against Landlord under this Lease and, if so, the nature thereof and the dollar amount, if any, of such claim, (vi) whether, to the knowledge of Tenant, there exist any offsets or defenses against enforcement of any of the terms of this Lease upon the part of Tenant to be performed, and (vii) such further information with respect to this Lease or the Premises as Landlord may reasonably request. Any such statement delivered pursuant to this Section 14.16 may be relied upon by any prospective purchaser or mortgagee of the Premises, or any prospective assignee of such mortgage. Tenant shall also deliver to Landlord such financial information as may be reasonably required by Landlord to be provided to any mortgagee or prospective purchaser of the Premises.

- 14.17 **SECURITY DEPOSIT.** Tenant shall deliver to Landlord at the time of execution of this Lease by Tenant the security deposit set forth in Section 1.2, as security for Tenant's faithful performance of Tenant's obligations hereunder. If Tenant fails to pay Basic Rent, additional rent or other charges due hereunder or otherwise defaults with respect to any provision of this Lease, Landlord may (but shall have no obligation to) use all or any portion of said deposit for the payment of any Basic Rent or other charge due hereunder to pay any other sum to which Landlord may become obligated by reason of Tenant's default or to compensate Landlord for any loss or damage which Landlord may suffer thereby. If Landlord so uses or applies all or any portion of said deposit, Tenant shall within ten (10) days after written demand therefor deposit cash with Landlord in an amount sufficient to restore said deposit to its full amount. Landlord shall not be required to keep said security deposit separate from its general accounts. If Tenant performs all of Tenant's obligations hereunder, said deposit, or so much thereof as shall not then have been applied by Landlord, shall be returned, without payment of interest or other amount for its use, to Tenant (or, at Landlord's option, to the last assignee, if any, of Tenant's interest hereunder) within a reasonable time after the expiration of the term hereof, and after Tenant has vacated and delivered the Premises as required hereunder. Landlord may retain an amount reasonably calculated to be sufficient to pay any final amount of Taxes or Operating Expenses for the year in which the Term ends. No trust relationship is created herein between Landlord and Tenant with respect to said security deposit. Tenant acknowledges that the security deposit is not an advance payment of any kind or a measure of or limit on Landlord's damages in the event of Tenant's default. Any application of the security deposit by Landlord shall be without prejudice to any other right or remedy. If Landlord conveys Landlord's interest under this Lease, the security deposit, or any part thereof not previously applied, shall be turned over by Landlord to Landlord's grantee, and Tenant agrees to look solely to such grantee for proper application of the security deposit in accordance with the terms of this Section 14.17, and the return thereof in accordance herewith. The holder of a mortgage shall not be responsible to Tenant for the return or application of any such deposit, whether or not it succeeds to the position of Landlord hereunder, unless such deposit shall have been received in hand by such holder. Tenant hereby waives the provisions of any law which is inconsistent with this Section 14.17.
- 14.18 **REMEDYING DEFAULTS.** Landlord shall have the right, but shall not be required, to pay such sums or do any act which requires the expenditure of monies which may be necessary or appropriate by reason of the failure or neglect of Tenant to perform any of the provisions of this Lease, and in the event of the exercise of such right by Landlord, Tenant agrees to pay to Landlord forthwith upon demand all such sums, together with

interest thereon at a rate equal to 3% over the base rate in effect from time to time at Bank of America, as an additional charge. Any payment of Basic Rent, Escalation Charges or other sums payable hereunder not paid when due shall, at the option of Landlord, bear interest at a rate equal to 3% over the base rate in effect from time to time at Bank of America from the due date thereof and shall be payable forthwith on demand by Landlord, as an additional charge.

- 14.19 HOLDING OVER. Any holding over by Tenant after the expiration of the term of this Lease shall be treated as a daily tenancy at sufferance at a rate equal to two (2) times the Basic Rent then in effect plus Escalation Charges and other charges herein provided (prorated on a daily basis). Nothing contained herein shall be construed to constitute Landlord's consent to Tenant holding over at the expiration or earlier termination of the Term. Tenant hereby agrees to indemnify, hold harmless and defend Landlord from any cost, loss, claim or liability (including without limitation attorneys' fees) Landlord may incur (including without limitation lost rents or income from other tenants) as a result of Tenant's failure to surrender possession of the Premises to Landlord upon the termination of this Lease. Otherwise, such holding over shall be on the terms and conditions set forth in this Lease as far as applicable. The Landlord may, but shall not be required to, and only on written notice to Tenant after the expiration of the Term hereof, elect to treat such holding over as a renewal of one (1) year, to be on the terms and conditions set forth in this Paragraph 14.19.
- 14.20 WAIVER OF CLAIMS AND SUBROGATION. Landlord and Tenant: (i) mutually agree that, with respect to any damage to property, the loss from which is covered (or required to be covered) by insurance then being carried by them, respectively, the one carrying (or required to carry) such insurance and suffering such loss releases the other of and from, and forever waives, any and all claims with respect to such loss, but only to the extent of the limits of insurance carried (or required to be carried) with respect thereto; and (ii) mutually agree that any property damage insurance carried (or required to be carried) by either shall provide for the waiver by the insurance carrier of any right of subrogation against the other.
- 14.21 PARKING. During the Term of this Lease, and subject to the Rules, Tenant shall be entitled to use the number of parking spaces set forth in Section 1.1 in the parking facility of the Building, without additional rental or use charges. If Tenant commits or allows in the parking facility any of the activities prohibited by the Lease or the Rules, then Landlord shall have the right, without notice, in addition to such other rights and remedies that it may have, to remove or tow away the vehicle involved and charge the cost to Tenant, which cost shall be immediately payable by Tenant upon demand by Landlord.

- 14.22 **SURRENDER OF PREMISES.** Upon the expiration or earlier termination of the Term of this Lease, Tenant shall peaceably quit and surrender to Landlord the Premises in neat and clean condition and in good order, condition and repair, together with all alterations, additions and improvements which may have been made or installed in, on or to the Premises prior to or during the Term of this Lease, excepting only ordinary wear and use and damage by fire or other casualty for which, under other provisions of this Lease, Tenant has no responsibility of repair or restoration. Tenant shall remove all of Tenant's Removable Property and, to the extent specified by Landlord, all alterations and additions made by Tenant and all partitions wholly within the Premises unless installed initially by Landlord in preparing the Premises for Tenant's occupancy; and shall repair any damages to the Premises or the Building caused by such removal. Any Tenant's Removable Property which shall remain in the Building or on the Premises after the expiration or termination of the Term of this Lease shall be deemed conclusively to have been abandoned, and either may be retained by Landlord as its property or may be disposed of in such manner as Landlord may see fit, at Tenant's sole cost and expense.
- 14.23 **SUBSTITUTE SPACE.** If Landlord so requests upon no less than thirty (30) days' prior notice, Tenant shall vacate the Premises and relinquish its rights with respect to the same provided that Landlord shall provide to Tenant substitute space in the Building, such space to be reasonably comparable in size, layout, finish and utility, with a substantially equivalent level, quantity and quality of tenant improvements, to the Premises, and further provided that Landlord shall, at its sole cost and expense, move Tenant and its Removable Property from the Premises to such new space in such manner as will minimize, to the greatest extent practicable, undue interference with the business or operations of Tenant. Any such substitute space shall, from and after such relocation, be treated as the Premises demised under this Lease, and shall be occupied by Tenant under the same terms, provisions and conditions as are set forth in this Lease. Landlord shall also be responsible, at its sole cost for removing and re-installing (or, at Landlord's option, replacing) Tenant's signage.
- 14.24 **BROKERAGE.** Tenant warrants and represents that Tenant has dealt with no broker in connection with the consummation of this Lease other than Broker, and, in the event of any brokerage claims against Landlord predicated upon prior dealings with Tenant, Tenant agrees to defend the same and indemnify Landlord against any such claim (except any claim by Broker, who shall be paid by Landlord). Landlord warrants and represents that Landlord has dealt with no broker in connection with the consummation of this Lease other than Broker, and, in the event of any brokerage claims against Tenant predicated upon prior dealings with Landlord, Landlord agrees to defend the same and indemnify Tenant against any such claim.
- 14.25 **GOVERNING LAW.** This Lease shall be governed exclusively by the provisions hereof and by the laws of the Commonwealth of Massachusetts, as the same may from time to time exist.

14.26 ANTI-TERRORISM PROVISIONS. (a) Tenant represents, warrants and covenants to Landlord that (i) neither Tenant nor any of its partners, members, principal stockholders or any other constituent entity either in control of the operation or management of Tenant or having a controlling financial interest in Tenant has been or will be designated or named as a terrorist, a “Specially Designated and Blocked Person,” or other banned or blocked person, entity, nation or transaction pursuant to any law, order, rule or regulation that is enforced or administered by the Office of Foreign Assets Control or on the most current list published by the U.S. Treasury Department Office of Foreign Assets Control at its official website, <http://www.treas.gov/ofac/t11> or at any replacement website or other replacement official publication of such list (such list, or any such replacement official publication of such list, the “**OFAC List**”), or by any Executive Order or the United States Treasury Department; and (ii) Tenant has not engaged, and will not engage, in this transaction, directly or indirectly, on behalf of, or instigating or facilitating, and will not instigate or facilitate, this transaction, directly or indirectly, on behalf of, any such person, group, entity or nation. A breach of any Tenant representation, warranty and covenant contained in this Section shall be an immediate and material Default of Tenant under this Lease without notice or cure rights. Tenant hereby agrees to defend, indemnify and hold harmless Landlord from and against any and all claims, damages, losses, risks, liabilities and expenses (including reasonable attorneys’ fees and costs) arising from or related to Tenant’s breach of any of the foregoing representations, warranties and/or covenants.

(b) Landlord represents, warrants and covenants to that (i) neither Landlord nor any of its general partners or any other constituent entity in control of the operation or management of Landlord has been designated or named as a terrorist, a “Specially Designated and Blocked Person,” or other banned or blocked person, entity, nation or transaction pursuant to any such law, order, rule or regulation or on the most current OFAC List, or by any Executive Order or the United States Treasury Department; and (ii) Landlord has not engaged, and will not engage, in this transaction, directly or indirectly, on behalf of, or instigating or facilitating, and will not instigate or facilitate, this transaction, directly or indirectly, on behalf of, any such person, group, entity or nation.

14.27 CONDOMINIUM CREATION. Tenant agrees and acknowledges that the Building and the Premises are part of the Totten Pond Office Park Condominium as the same has been established by Master Deed dated December 7, 2006 and recorded with the Middlesex South County Registry of Deeds (the “Registry”) in Book 48627, Page 337, as amended by a Designation of Limited Common Elements dated January 18, 2011 and recorded with the Registry in Book 56471, Page 445 (as amended, the “Master Deed”), and Declaration of Trust dated December 7, 2006 (the “Trust” together with the Master Deed are collectively referred to as the “Condominium Documents”) and recorded with the Registry in Book 48627, Page 361, pursuant to Chapter 183A of the Massachusetts General Laws (the “Condominium Act”). Tenant agrees and acknowledges that the Building and Premises shall be subject to the Condominium Documents and Condominium Act. The Condominium Documents shall take priority over this Lease and this Lease shall automatically be subordinate to the Condominium

Documents without the need for recording of any additional document. The Landlord reserves to itself solely and exclusively all the rights of a Unit owner with respect to the Building or the Premises, including the right to vote and participate in the governance of the condominium as a Unit owner, trustee or declarant under the Master Deed. In the event any Operating Expenses are converted to common charges assessed or levied against the Building as part of the Condominium, Tenant's percentage of increases in Operating Expenses under this Lease shall be deemed to include a proportionate amount of such common charges to the extent such expense would otherwise be an includable Operating Expenses under Section 9.1 if it had not been converted to common charges.

- 14.28 CHANGES OR ALTERATIONS BY LANDLORD. Landlord reserves the right, exercisable by itself or its nominee, at any time and from time to time without the same constituting an actual or constructive eviction and without incurring any liability to Tenant therefor or otherwise affecting Tenant's obligations under this Lease, to make such changes, alterations, additions, improvements, repairs or replacements in or to the Premises, the Building and/or the Park and the fixtures and equipment thereof, as well as in or to the street entrances, halls, passages, elevators, escalators, parking areas, tunnels, and stairways thereof, as it may deem necessary or desirable, and to change the arrangement and/or location of entrances or passageways, doors and doorways, and corridors, elevators, stairs, toilets, or other public parts of the Building and/or the Park, provided, however, that there be no unreasonable obstruction of the right of access to, or material interference with the use and enjoyment of, the Premises or Tenant's appurtenant rights. Landlord shall be entitled, in its reasonable discretion, and upon reasonable notice to Tenant, to discontinue or modify any cafeteria or other food service facility, or any fitness or exercise facility, or the manner of operation thereof. Nothing contained herein shall be deemed to relieve Tenant of any duty, obligation or liability of Tenant under this Lease with respect to making any repair, replacement or improvement or complying with any law, order or requirement of any governmental or other authority. Landlord reserves the right to adopt and at any time and from time to time to change the name of the Building and/or the Park. Neither this Lease nor any use by Tenant shall give Tenant any right or easement for the use of any door or any passage or any concourse connecting with any other Building or to any public convenience, and the use of such doors, passages and concourses and of such conveniences may be regulated or discontinued at any time and from time to time by Landlord without notice to Tenant and without affecting the obligation of Tenant hereunder or incurring any liability to Tenant therefor, provided, however, that (except by reason of Force Majeure) there be no unreasonable obstruction of the right of access to, or unreasonable interference with the use of the Premises (including the right to use the Parking Areas) by Tenant. If at any time any windows of the Premises are temporarily closed or darkened for any reason whatsoever relating to any maintenance or repair work, but Tenant shall not otherwise be prevented from occupying or using the Premises for the uses set forth herein, Landlord shall not be liable for any damage Tenant may sustain thereby and Tenant shall not be entitled to any compensation therefor nor abatements of rent nor shall the same release Tenant from its obligations hereunder nor constitute an eviction.

- 14.29 POST-TERMINATION OBLIGATIONS. The expiration or termination of this Lease shall not relieve Tenant of its obligations hereunder which by their terms or nature Tenant is to perform after such expiration or termination, including without limitation the obligation to pay any Rent accrued with respect to the Term, and any indemnity given hereunder as to events, occurrences and conditions happening prior to such expiration or termination, all of which shall continue and remain in full force and effect for so long as allowed by applicable statutes of limitation or other applicable law.
- 14.30 NO PRESUMPTION AGAINST DRAFTER. Landlord and Tenant understand, agree and acknowledge that this Lease has been freely negotiated by both parties and that, in any controversy, dispute or contest over the meaning, interpretation, validity or enforceability of this Lease or any of its terms or conditions, there shall be no influence, presumption or conclusion whatsoever drawn for or against either party by virtue of that party having drafted this Lease or any portion thereof.

ARTICLE XV
OPTION TO EXTEND

- 15.1 TENANT'S RIGHT. Provided that, at the time of such exercise, (i) there exists no Default of Tenant hereunder (nor any event or circumstance which, with the giving of notice or the passage of time, or both, would constitute a Default of Tenant), and (ii) Tenant shall not have assigned this Lease or sublet all or any portion of the Premises, and then actually occupies the entire Premises, and (iii) this Lease is still in full force and effect (all of which conditions are for the benefit of, and may be waived by, Landlord), Tenant shall have the right to extend the Term of this Lease for one extended term (the "Extended Term") of three (3) years. The Extended Term shall commence on the day following the last day of the Initial Term, and shall end at 11:59 p.m., Boston time, on the day immediately preceding the third anniversary of the first day of the Extended Term. Tenant shall exercise such option to extend by giving written notice to Landlord not later than nine (9) months prior to the expiration of the Initial Term. The giving of such notice by Tenant shall automatically and irrevocably extend the Term of this Lease for the Extended Term, and no instrument of renewal need be executed. In the event that Tenant fails to give such notice to Landlord, this Lease shall automatically terminate on the last day of the Initial Term, and Tenant shall have no further option to extend the Term of this Lease, it being agreed that time shall be of the essence in the giving of such notice. The Extended Term shall be on all the terms and conditions of this Lease (including without limitation that Tenant's Share of increases in Operating Expenses and Taxes shall continue to be calculated using the Base Years set forth in Section 1.3), except that the Basic Rent for the Extended Term shall be determined pursuant to Section 15.2 hereof.

- 15.2 RENT, ETC. (a) The annual Basic Rent for each year of the Extended Term shall be the Fair Market Rental Value of the Premises (exclusive of the cost of supplying Tenant electricity), to be established as of the commencement of the Extended Term (the "Determination Date"). The term "Fair Market Rental Value" shall mean the annual fixed rent that a willing tenant would pay and a willing landlord would accept, each acting in its own best interest and without duress, in an arms-length lease of the Premises as of the Determination Date. If Landlord and Tenant shall fail to agree upon the Fair Market Rental Value within six (6) months before the Determination Date, then Landlord and Tenant each shall give notice (the "Determination Notice") to the other setting forth their respective determinations of the Fair Market Rental Value, and, subject to the provisions of paragraph (b) below, either party may apply to the then president of the Real Estate Finance Association of the Greater Boston Real Estate Board, or any successor thereto, for the designation of an arbitrator satisfactory to both parties to render a final determination of the Fair Market Rental Value. That there shall be only one arbitrator, who shall have had at least ten (10) years' experience as a real estate broker or appraiser in the greater Boston/Waltham office rental market. The arbitrator shall conduct such hearings and investigations as the arbitrator shall deem appropriate and shall, within thirty (30) days after having been appointed, choose one of the determinations set forth in either Landlord's or Tenant's Determination Notice, and that choice by the arbitrator shall be binding upon Landlord and Tenant. Each party shall pay its own counsel fees and expenses, if any, in connection with any arbitration under this paragraph (a), and the parties shall share equally all other expenses and fees of any such arbitration. The determination rendered in accordance with the provisions of this paragraph (a) shall be final and binding in fixing the Fair Market Rental Value. The arbitrator shall not have the power to add to, modify, or change any of the provisions of this Lease.
- (b) In the event that the lower of the two determination of the Fair Market Rental Value is greater than ninety-five percent (95%) of the higher determination, then the Fair Market Rental Value shall not be determined by arbitration, but shall instead be set by taking the average of the determinations set forth in Landlord's and Tenant's Determination Notices. Only if the lower determination is ninety-five percent (95%) or less of the higher determination shall the actual determination of Fair Market Rental Value be made by an arbitrator as set forth in paragraph (a) above.

(c) If for any reason the Fair Market Rental Value shall not have been determined prior to the Determination Date, then, until the Fair Market Rental Value and, accordingly, the Basic Rent, shall have been finally determined, Tenant shall pay Basic Rent at the rate quoted by Landlord in Landlord's Determination Notice. Upon final determination of the Fair Market Rental Value, an appropriate adjustment to the Basic Rent theretofore paid by Tenant from and after the Determination Date shall be made reflecting such final determination, and Landlord or Tenant, as the case may be, shall promptly credit or pay, respectively, to the other any overpayment or deficiency, as the case may be, in the payment of Basic Rent from the Determination Date to the date of such final determination. In no event, however, will the Basic Rent for any year of the Extended Term be less than the Basic Rent in effect for the last year of the Initial Term.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Lease to be duly executed, under seal, by persons hereunto duly authorized, in multiple copies, each to be considered an original hereof, as of the date first set forth above.

LANDLORD:

THE REALTY ASSOCIATES FUND X, L.P.,
a Delaware limited partnership

By: Realty Associates Fund X, LLC,
a Delaware limited liability company,
its general partner

By: TA Realty LLC, a Massachusetts limited liability
company, its Manager

By: /s/ Alexander Dyer
Name: Alexander Dyer
Title: Vice President - Regional Director

TENANT:

IMAGING ENDPOINTS, LLC

By: /s/ R. Scott Wilkinson
Name: R. Scott Wilkinson
Title: Sr. Controller

PLAN OF THE PARK

LEGAL DESCRIPTION OF LAND AND PARK

PLAN OF PREMISES

COMMENCEMENT DATE LETTER

TENANT CONSTRUCTION RULES AND REGULATIONS

GENERAL:

Any work not specifically described as being performed by Landlord shall be considered as the Tenant's responsibility to do at its sole cost and expense and shall be done only with the prior written approval of the Landlord. The work shall be performed in compliance with requirements of applicable legal statutes, and governmental agencies having jurisdiction in addition to the details, instructions and time periods contained in the Lease and the specifications herein provided.

1. The condition of all utility improvements as they may presently exist within the Premises is neither represented nor warranted by Landlord to satisfy the requirements of Tenant. The Tenant is fully responsible for any and all connections to the Building's water, sewer, gas and electric systems and the Tenant must complete Tenant's work timely and in a quality workmanship manner. The Tenant is liable for all damages that occur due to Tenant's inability to do the same as well as any delays this causes the Tenant or any other tenants at the Park

2. Any change in the Premises including, any new construction work, modification of existing improvements, or the installation of trade fixtures, shall be performed by Tenant at its sole cost and expense, and shall be completed in such a manner so that the Premises shall have the appearance of, and be, a first class office/flex facility of at least the same quality as exists on the date of the Lease from Landlord to Tenant, suitable for use only for the purpose permitted by the Lease.

3. The design, construction and proposed finishes shall conform to and be architecturally harmonious with the Building.

4. Construction shall comply with applicable statutes, ordinances, regulations, laws and codes of the governing authorities and/or agencies. Tenant shall utilize only new and first class materials in the performance of Tenant's work, which shall be performed in a first class workmanlike manner.

5. The Tenant must submit to Landlord an engineer signed and sealed shop drawing of any changes that Tenant will have installed to the HVAC ductwork system, mechanical system, electrical system, and/or plumbing system. The Landlord must approve all shop drawings before the Tenant begins fabrication and installation. All HVAC systems will have plenum ceiling returns.

6. All required building and other permits and fees for Tenant's work will be obtained and paid for by Tenant or Tenant's contractor and posted as required within the Premises. The Tenant must apply and pay for all Municipal and State inspections for Tenant's certificate of occupancy.

7. Performance and/or labor and material bonds shall be obtained from Tenant's contractor when required by Landlord.

8. Tenant's contractor shall be required to work in harmony with other contractors at the Building. Tenant's contractor shall co-ordinate its work with the general project work.

9. Tenant's contractor shall be required to show evidence of possessing good labor relations and shall conduct the performance of its work in such manner so as to avoid labor disputes and disruptions which will interfere with other work in or the operation or use of the Building.

10. All unloading of construction materials and equipment shall be accomplished within predetermined areas, and Tenant shall protect the Building from damage from the transporting of such materials and equipment. All materials and equipment must be stored within the Premises.

11. Tenant shall be responsible to insure that Tenant's contractor and subcontractors comply with the requirements herein contained and to direct any contractor which fails to comply to cease work, and to remove himself, his equipment and his employees from the Building. Tenant's contractors performing work must be approved by Landlord prior to commencing any work in the Building (such approval not to be unreasonably withheld, conditioned or delayed).

12. At Landlord's election, during the progress of such work and upon completion of all work affecting the Premises, an inspection verifying compliance with Lease Exhibits and Tenant's approved drawings will be made by the Landlord. Tenant's architect will confirm to Landlord, in writing, conformance of completed work prior to inspection of the Premises by Landlord. The construction of the Tenant's work shall be inspected by Landlord or its agent on behalf of Landlord no less frequently than monthly. Tenant shall reimburse Landlord for all reasonable costs incurred by Landlord's representative to inspect the Premises.

13. No approval by the Landlord is valid unless in writing, signed by the Landlord or its authorized representative.

14. Tenant's contractor shall carry such types of insurance in such amounts as designated below and all policies including, without limitation, those hereinafter specified shall name Landlord, Landlord's property manager, and their successors and/or assigns as the additional insured. Certificates of insurance shall provide that no change or cancellation of such insurance coverage shall be undertaken without thirty (30) days' written notice to the Landlord. Tenant's contractor shall deliver the necessary insurance certificates to Landlord prior to commencing work. All insurance shall be maintained with responsible companies, licensed to do business in Massachusetts and satisfactory to Landlord.

Tenant's contractor's and subcontractor's required minimum coverages and limits of liability:

14.1. Workman's Compensation, Employer's Liability Insurance with limits of not less than \$200,000.00 and as required by state law and any insurance required by any Employee Benefit Act or other statutes applicable where the work is to be performed as will protect Tenant's contractor and subcontractors from and all liability under the aforementioned act.

14.2. Comprehensive General Liability Insurance (including Contractor's Protective Liability) in an amount not less than \$1,000,000.00 per person and \$2,000,000.00 per occurrence whether involving personal injury liability (or a combination thereof) with a minimum aggregate limit of \$2,000,000.00. Such insurance shall provide for explosion and collapse coverage and shall name Landlord and Landlord's property manager and their successors and/or assigns as additional insured, against any and all claims for personal injury, including death resulting therefrom, and damage to the property of others caused by accident and arising from its operations are performed by the contractor, subcontractors, or any of their subcontractors, or by anyone directly or indirectly employed by any of them.

14.3. Comprehensive Automobile Liability Insurance, including the ownership, maintenance and operation of any automotive equipment, owned, hired, and non-owned, in the following minimum amounts:

14.3.a. Bodily injury, each person	\$1,000,000.00
14.3.b. Bodily injury, each occurrence	\$1,000,000.00
14.3.c. Property Damage Liability	\$ 100,000.00

Such insurance shall name Landlord, Landlord's property manager, and their successors and/or assigns as additional insured and protect same against any and all claims for bodily injury, including death resulting therefrom and damage to the property of others arising from his operations under the contract and whether such operations are performed by the contractor, subcontractors, and any of their subcontractors, or by anyone directly or indirectly employed by any one of them.

The Tenant must forward insurance certificates to the Landlord, prior to commencing work.

15. Tenant's Protective Liability Insurance

15.1. Tenant shall provide Owner's Protective Liability Insurance naming Landlord, Landlord's property manager, and their successors and/or assigns as additional insured and protect same against any and all liability to third parties for damage because of bodily injury liability (or death resulting therefrom) and property damage liability of others or a combination thereof which may arise from work in the completion of the Premises, and any other liability for damages which the contractor and/or subcontractor are required to insure under any provisions herein. Said insurance shall be provided in minimum amounts as follows:

15.1.a. Bodily injury, each person	\$1,000,000.00
15.1.b. Bodily injury, each occurrence	\$2,000,000.00
15.1.c. Property damage, each occurrence	\$ 250,000.00
15.1.d. Property damage, aggregate	\$ 250,000.00

The Tenant must forward insurance certificates to the Landlord, prior to commencing work.

16. Any roof penetrations for Tenant's rooftop equipment, setting/installation of Tenant's equipment or structural support at such equipment locations will be done at the Tenant's expense by a contractor acceptable to Tenant and Landlord. (Please note any required equipment steel supports will be designed by the architect of record at the Tenant's expense. The equipment specifications must be submitted to the Landlord for approval prior to commencement of any work).

17. Any and all roof penetrations (plumbing vents, bathroom exhaust, etc.) must be accomplished by a contractor approved by Tenant and Landlord, at the Tenant's expense, so that the Landlord may sustain the roof guarantee.

18. The labor utilized in the construction of each project shall be appropriate to the Park. All OSHA safety requirements must be strictly adhered for all trades. If any delays, damages, or problems of any kind should arise from the Tenant's failure to follow this policy, he/she will be held totally liable for any and all delays or damages in his/her space and/or at the center.

19. Working Drawings and Specifications:

All prints, drawing information and other material to be furnished by Tenant as called for hereinafter shall be addressed to Landlord, Attn: Construction Department - Waltham.

20. The Tenant is responsible to furnish all labor, material, equipment and supervision necessary and required to complete all other work outlined with the plans and specifications that have been approved by the Landlord.

The Tenant is totally responsible for requesting all trade inspections required, obtaining all approvals, using skilled craftsmen and having necessary insurance certificates as may be required for getting their own final certificate of occupancy, all in conformance with the referenced lease between Tenant and Landlord.

The Landlord shall not be held liable for quality of workmanship, and will not warranty any items installed by the Tenant's contractors.

21. Tenant shall obtain, and shall provide the Landlord with copies of, all appropriate lien waivers from its general contractors with respect to all work completed to date at the time of each payment to same.

RULES AND REGULATIONS

GENERAL

1. The entrances, lobbies, passages, corridors, elevators, halls, courts, sidewalks, vestibules, and stairways shall not be encumbered or obstructed by Tenant, Tenant's agents, servants, employees, licensees or visitors or used by them for any purposes other than ingress or egress to and from the Premises.
2. No awnings or other projections shall be attached to the outside walls or windows of the Building without the prior consent of Landlord. No curtains, blinds, shades, or screens shall be attached or hung in, or used in connection with, any window or door of the premises demised to any tenant or occupant, without the prior consent of Landlord. Any such awnings, projections, curtains, blinds, shades or screens, or other fixtures permitted by Landlord must be of quality type, design and color, and attached in a manner, approved by Landlord.
3. No sign, advertisement, object, notice or other lettering shall be exhibited, inscribed, painted or affixed on any part of the outside or inside of the premises demised to any tenant or occupant of the Building without the prior consent of Landlord. Interior signs on doors and directory tables, if any, shall be of a size, color and style approved by Landlord.
4. The sashes, sash doors, skylights, windows and doors that reflect or admit light and air into the halls, passageways or other public places in the Building shall not be covered or obstructed, nor shall any bottles, parcels, or other articles be placed on any window sills.
5. No show cases or other articles shall be put in front of or affixed to any part of the exterior of the Building, nor placed in the halls, corridors, vestibules or other parts of the Building.
6. The water and wash closets and other plumbing fixtures shall not be used for any purposes other than those for which they were constructed, and no sweepings, rubbish, rags, or other substances shall be thrown therein.
7. No tenant or occupant shall mark, paint, drill into, or in any way deface any part of the Building or the premises demised to such tenant or occupant. No boring, cutting or stringing of wires shall be permitted, except with the prior consent of the Landlord, and as Landlord may direct. No tenant or occupant shall install any resilient tile or similar floor covering in the premises demised to such tenant or occupant except in a manner approved by Landlord.

8. No vehicles or animals of any kind shall be brought into or kept in or about the premises demised to any tenant. No cooking shall be done or permitted in the Building by any tenant without the approval of Landlord. No tenant shall cause or permit any unusual or objectionable to emanate from the premises demised to such tenant.

9. Without the prior consent of Landlord, no space in the Building shall be used for the sale of merchandise, goods or property of any kind at auction.

10. Tenant shall not make noises, cause disturbances, create vibrations, odors or noxious fumes or use or operate any electric or electrical devices or other devices that emit sound waves or are dangerous to other tenants and occupants of the Building or that would interfere with the operation of any device or equipment or radio or television broadcasting or reception from or within the Building or elsewhere, or with the operation of roads or highways in the vicinity of the Building, and shall not place or install any projections, antennae, aerials, or similar devices inside or outside of the Premises, without the prior written approval of Landlord.

11. Each tenant must, upon the termination of its tenancy, restore to Landlord all keys and access cards of storage, offices and toilet rooms, either furnished to, or otherwise procured by, such tenant.

12. All removals from the Building, or the carrying in or out of the Building or the premises demised to any tenant of any safes, freight, furniture, or bulky matter of any description must take place at such time and in such manner as Landlord or its agents may determine, from time to time. Landlord reserves the right to inspect all freight which violates any of the Building Rules or the provisions of such tenant's lease.

13. No tenant shall use or occupy, or permit any portion of the premises demised to such tenant to be used or occupied, as an office for a public stenographer or typist, or to a barber or manicure shop, or as an employment bureau. No tenant or occupant shall engage or pay any employees in the Building, except those actually working for such tenant or occupant in the Building, nor advertise for laborers giving an address at the Building.

14. Landlord shall have the right to prohibit any advertising by any tenant or occupant which, in Landlord's opinion, tends to impair the reputation of the Building or its desirability as a Building for offices, and upon such notice from Landlord, such tenant or occupancy shall refrain from or discontinue such advertising.

15. Landlord reserves the right to exclude from the Building, between the hours after 6:00 p.m. and before 6:00 a.m. on business days (and from 1:00 p.m. on Saturdays) and at all hours on all other days, all persons who do not present a pass to the Building. Landlord will furnish passes to Tenants for distribution and Tenants shall reimburse Landlord for the cost for each such pass. Each tenant shall be responsible for all persons to whom it distributes such passes and shall be liable to Landlord for all wrongful acts of such persons.

16. Each tenant, before closing and leaving the premises demised to such tenant at any time, shall see that all entrance doors are locked and windows closed.

17. Each tenant shall, at its expense, provide artificial light in the premises demised to such tenant for Landlord's agents, contractors, and employees while performing janitorial or other cleaning services and making repairs or alterations in said premises.

18. No premises shall be used, or permitted to be used, for lodging or sleeping, or for any immoral or illegal purposes.

19. There shall not be used in the Building, either by any tenant or occupant or by their agents or contractors, in the delivery or receipt of merchandise, freight or other matter, any hand trucks or other means of conveyance except those equipped with rubber tires, rubber side guards and such other safeguards as Landlord may require.

20. Canvassing, soliciting and peddling in the Building are prohibited and each tenant and occupant shall cooperate in seeking their prevention.

21. If the premises demised to any tenant become infested with vermin, such tenant, at its sole cost and expense, shall cause its premises to be exterminated from time to time, to the satisfaction of Landlord, and shall employ such exterminators as shall be approved by Landlord.

22. No premises shall be used, or permitted to be used, at any time, without the prior approval of Landlord, as a store for the sale or display of goods, wares or merchandise of any kind, or as a restaurant, shop, booth, bootblack, or other stand, or for the conduct of any business or occupation which predominately involves direct patronage of the general public in the premises demised to such tenant.

23. No tenant shall move, or permit to be moved, into or out of the Building or the premises demised to such tenant, any heavy or bulky matter, other than reasonable quantities of goods normally required by office uses, without the specific approval of Landlord. If any such matter requires special handling, only a person holding a Master Rigger's license shall be employed to perform such special handling. No tenant shall place, or permit to be placed, on any part, of the floor or floors of the premises demised to such tenant, a load exceeding the floor load per square foot which such floor was designed to carry and which is allowed by law. Landlord reserves the right to prescribe the weight and position of safes and other heavy matter, which must be placed so as to distribute the weight.

24. The requirements of tenants will be attended to only upon application at the office of the Building. Building employees shall not be required to perform, and shall not be requested by any tenant or occupancy to perform, any work outside of their regular duties, unless under specific instructions from the office of the managing agent of the Building.

25. Tenant shall not waste electricity or water and agrees to cooperate fully with Landlord to assure the most effective operation of the Building's heating and air conditioning and shall refrain from attempting to adjust controls. Tenant shall keep corridor doors closed except when being used for access.

26. Locks to premises shall not be changed or added without permission of the Landlord. Door keys for doors in the Premises will be furnished at the Commencement of the Lease by Landlord. Tenant shall not affix additional locks on doors and shall purchase duplicate keys only from Landlord and will provide to landlord the means of opening of sales, cabinets, or vaults left on the Premises. In the event of the loss of any keys so furnished by Landlord, Tenant shall pay to Landlord the cost thereof.

27. Tenant, or the employees, agents, servants, visitors or licensees of Tenant shall not at any time place, lease or discard any rubbish, paper, articles, or objects of any kind whatsoever outside the doors of the Premises or in the corridors or passageways of the Building. No animals or birds shall be brought or kept in or about the Building. Bicycles shall not be permitted in the Building.

28. Tenant assumes full responsibility for protecting its space from theft, robbery and pilferage, which includes keeping doors locked and other means of entry to the Premises closed and secured.

29. Tenant covenants and agrees that its use of the Premises shall not cause a discharge of more than the gallonage per foot of Premises Design Floor Area per day of sanitary (non-industrial) sewage allowed under the sewage discharge permit for the Building. Discharges in excess of that amount, and any discharge of industrial sewage, shall only be permitted if Tenant, at its sole expense, shall have obtained all necessary permits and licenses therefor, including without limitation permits from state and local authorities having jurisdiction thereof. Tenant shall submit to Landlord on December 31 of each year of the Term of this Lease a statement, certified by an authorized officer of Tenant, which contains the following information: name of all chemicals, gases, and hazardous substances, used, generated, or stored on the Premises; type of substance (liquid, gas or granular); quantity used, stored or generated per year; method of disposal; permit number, if any, attributable to each substance, together with copies of all permits for such substances; and permit expiration date for each substance.

PARKING RULES

1. Parking areas shall be used only for parking by vehicles no longer than full size, passenger automobiles or minivans. Tenant and its employees shall park automobiles within the lines of the parking spaces.

2. Tenant shall not permit or allow any vehicles that belong to or are controlled by Tenant or Tenant's employees, suppliers, shippers, customers, or invitees to be loaded, unloaded, or parked in areas other than those designated by Landlord for such activities. Users of the parking area will obey all posted signs and park only in the areas designated for vehicle parking.

3. Parking stickers, parking cards and other identification devices shall be the property of Landlord and shall be returned to Landlord by the holder thereof upon termination of the holder's parking privileges.

4. Landlord reserves the right to relocate all or a part of parking spaces within the parking area serving the Park, and to allocate them between compact and standard size and tandem spaces, as long as the same complies with applicable laws, ordinances and regulations.

5. Unless otherwise instructed, every person using the parking area is required to park and lock his own vehicle. Landlord will not be responsible for any damage to vehicles, injury to persons or loss of property, all of which risks are assumed by the party using the parking area.

6. Intentionally Omitted.

7. The maintenance, washing, waxing or cleaning of vehicles in the parking structure or common areas is prohibited.

8. Tenant shall be responsible for seeing that all of its employees, agents and invitees comply with the applicable parking rules, regulations, laws and agreements. Parking area managers or attendants, if any, are not authorized to make or allow any exceptions to these Parking Rules and Regulations. Landlord reserves the right to terminate parking rights for any person or entity that willfully refuses to comply with these rules and regulations.

9. Any vehicle parked by Tenant, its employees, contractors or visitors in a reserved parking space or in any area of the parking area that is not designated for the parking of such a vehicle may, at Landlord's option, and without notice or demand, be towed away by any towing company selected by Landlord, and the cost of such towing shall be paid for by Tenant and/or the driver of said vehicle.

10. At Landlord's request, Tenant shall provide Landlord with a list which includes the name and phone number of each person using the parking facilities based on Tenant's parking rights under this Lease and the license plate number, year, make, model and color of the vehicle being used by that person. Tenant shall provide Landlord with an updated list within five (5) days after any part of the list becomes inaccurate.

11. Landlord reserves the right to designate specific parking locations for tenant parking.

12. Landlord reserves the right at any time to change or rescind any one or more of these Rules and Regulations, or to make such other and further reasonable Rules and Regulations as in Landlord's reasonable judgment may from time to time be necessary for the management, safety, care and cleanliness of the Park, and for the preservation of good order therein, as well as for the convenience of other occupants and tenants therein. Landlord may waive any one or more of these Rules and Regulations for the benefit of any particular tenant, but no such waiver by Landlord shall be construed as a waiver of such Rules and Regulations in favor of any other tenant, nor prevent Landlord from thereafter enforcing any such Rules or Regulations against any or all tenants of the Building or the Park. Tenant shall be deemed to have read these Rules and Regulations and to have agreed to abide by them as a condition of its occupancy of the Premises.

PLAN OF SUBLEASED PREMISES

EXHIBIT C

FURNITURE

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List of Subsidiaries

Subsidiary	Jurisdiction of Incorporation
Upstream Bio Securities Corporation	Massachusetts