As filed with the Securities and Exchange Commission on September 20, 2024.

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

CAMP4 Therapeutics Corporation

(Exact name of registrant as specified in its charter)

Delaware	**2834**	**81-1152476**
(State or other jurisdiction of Incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No.)

One Kendall Square
Building 1400 West, 3rd Floor
Cambridge, Massachusetts 02139
Telephone: (617) 651-8867

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Josh Mandel-Brehm
Chief Executive Officer
One Kendall Square, Building 1400 West, 3rd Floor
Cambridge, Massachusetts 02139
Telephone: (617) 651-8867

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Marc A. Rubenstein **Thomas J. Danielski** **Ropes & Gray LLP** **Prudential Tower** **800 Boylston Street** **Boston, Massachusetts 02199** **(617) 951-7000**	**Siavosh Salimi** **William A. Magioncalda** **Paul Hastings LLP** **The MetLife Building** **200 Park Avenue** **New York, New York 10166** **(212) 318-6000**

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

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, 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 accelerate 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.

Subject to completion, dated September 20, 2024

Preliminary prospectus

shares

Common stock

This is an initial public offering of shares of common stock by CAMP4 Therapeutics Corporation.

We are offering shares of our common stock. 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 have applied to list our common stock on the Nasdaq Global Market under the trading symbol "CAMP," and this offering is contingent upon the listing of our common stock on the Nasdaq Global Market.

We are an "emerging growth company" and a "smaller reporting company" as defined under the U.S. federal securities laws and, as such, will be subject to reduced public company reporting requirements for this prospectus and future filings. See "Prospectus summary—Implications of being an emerging growth company and a smaller reporting company."

Investing in our common stock involves a high degree of risk. See "Risk factors" beginning on page 15 to read about factors you should consider before buying shares of our common stock.

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.

	Per share	Total
Initial public offering price	$	$
Underwriting discounts and commissions(1)	$	$
Proceeds before expenses, to us	$	$

(1) See the section titled "Underwriting" for additional information regarding underwriting compensation.

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 the underwriting discount.

The underwriters expect to deliver the shares against payment on or about , 2024.

J.P. Morgan **Leerink Partners** **Piper Sandler** **William Blair**

, 2024

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Neither we nor the underwriters have authorized anyone to provide any information or to make any representations other than those contained in this prospectus or in any free writing prospectus 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 provide 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 contained in this prospectus is accurate only as of the date on the front cover of this prospectus, regardless of the time of delivery of this prospectus or of any sale 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: neither we nor any of the underwriters have 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 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.

Prospectus summary

This summary highlights, and is qualified in its entirety by, information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the sections titled "Risk factors," "Business," and "Management's discussion and analysis of financial condition and results of operations" and our consolidated financial statements and the related notes appearing elsewhere in this prospectus, before making an investment decision. As used in this prospectus, unless the context otherwise requires, references to "we," "us," "our," "the company," "CAMP4" and "CAMP4 Therapeutics" refer to CAMP4 Therapeutics Corporation.

CAMP4 is the final camp before the summit of Mount Everest. It is also home to a climbing haven in Yosemite National Park where the world's greatest climbers gather to push the boundaries for what is thought to be possible. Like these elite climbers, we are pushing the boundaries of biology to discover and develop new and potentially life changing therapeutics.

Overview

We are a clinical-stage biopharmaceutical company pioneering the discovery and development of regulatory RNA-based therapeutics with the goal of upregulating gene expression and restoring healthy protein levels to treat a broad range of genetic diseases. Regulatory RNAs, or regRNAs, play a central role in the regulation of every protein-coding gene by contributing to gene activation and suppression. Our approach is designed to amplify messenger RNA, or mRNA, expression by harnessing the power of regRNAs that form localized complexes with transcription factors and regulate gene expression. Our proprietary RNA Actuating Platform, or RAP Platform, allows us to rapidly and systematically identify and characterize the active regulatory elements controlling every expressed gene and tens of thousands of druggable enhancer and promoter regRNA sequences that control protein-coding genes. Once a disease-associated target gene is identified, we apply our RAP Platform to identify the controlling regRNA and rapidly generate novel antisense oligonucleotide, or ASO, candidates, which we also refer to as RNA Actuators. These ASOs are designed to bind to the identified regRNA and amplify the expression of the target gene in a specific and controllable way. We are initially focused on metabolic and central nervous system, or CNS, diseases with validated disease biology, and we believe our RAP Platform allows us to address a broad range of genetic diseases in which a modest increase in protein expression can be clinically meaningful.

Based on our preclinical studies, we believe our lead product candidate, CMP-CPS-001, has the potential to be the first disease-modifying therapy for the treatment of the most prevalent urea cycle disorders, or UCDs. UCDs are a group of severe, inherited metabolic diseases caused by mutations in the genes that encode one or more of the eight enzymes and transporters necessary to convert ammonia into urea. The inability of the body to properly metabolize ammonia leads to the accumulation of toxic levels in circulation, ultimately resulting in severe health outcomes, such as neurologic disability, seizure and death. CMP-CPS-001 is designed to improve urea cycle activity by amplifying expression of carbamoyl phosphate synthetase 1, or CPS1, an enzyme that catalyzes the first step of the urea cycle, by binding to a CPS1-specific regRNA. Our preclinical studies have demonstrated that modulating the activity of the target regRNA increases expression of the *CPS1* gene, resulting in increased CPS1 enzyme levels, which allows for more ammonia to be converted into urea, thereby lowering ammonia levels to normal, healthy ranges. These preclinical studies also demonstrated that CMP-CPS-001 can increase the level of, or upregulate, the production of multiple enzymes responsible for converting ammonia into urea, potentially allowing us to address more than 85% of patients with UCDs, which we refer to as our pan-UCD approach. We are in the early stages of development and are evaluating CMP-CPS-001 in an ongoing Phase 1 clinical trial in healthy volunteers and expect to report data from all four cohorts of the single ascending dose, or SAD, portion of the trial in the first quarter of 2025 and from the multiple ascending dose, or MAD, portion of the trial in the second half of 2025. We are also leveraging our RAP Platform to advance our first preclinical program for the treatment of synaptic Ras GTPase activating protein 1, or SYNGAP1,-related disorders. We expect to initiate final Good Laboratory Practice, or GLP, toxicology studies in our SYNGAP1 program in 2025 to enable the filing of clinical trial applications.

The transcription of DNA into mRNA, the molecular template that is then translated into protein, is a complex yet carefully coordinated cellular process involving numerous components. Only a small portion of the DNA in the human genome is transcribed into RNA that codes for proteins. The vast majority of the transcriptome originates from non-coding regions of DNA, a portion of which, referred to as enhancers and promoters, perform a crucial role in determining the specificity, timing and level at which a particular gene is expressed. RegRNAs are non-coding RNAs that are transcribed by these enhancer and promoter DNA regions that form localized complexes with transcription factors to control the expression of protein-coding genes, either increasing or decreasing their expression within natural physiological ranges. The approximately 20,000 genes that code for mRNA in the human genome are controlled by hundreds of thousands of DNA enhancers and their associated regRNAs.

Deficient protein levels characterize over a thousand diseases. Haploinsufficient diseases are dominantly inherited conditions in which inadequate gene expression is driven by a mutation in a single allele, or gene copy, and results in reductions of protein levels by as much as 50%. Numerous other genetic conditions are caused by recessive mutations that result in diminished gene activity. Data from our preclinical studies and research reports published by third parties demonstrate that increasing expression of disease-associated genes by modest amounts can restore healthy protein levels and provide therapeutic benefit in these disorders. Therefore, modest increases in protein expression have the potential to be clinically meaningful in both haploinsufficient and recessive partial loss-of-function disorders, of which there are more than 1,200. Our RAP Platform has the potential to identify the regRNA associated with all of these diseases, which we believe enables us to design RNA Actuators to address the underlying biology of these diseases. We aim to leverage our RAP Platform to develop product candidates designed to regulate transcription in a gene-specific manner to restore healthy protein levels and remedy these diseases. However, our approach is unproven and may not lead to successful efforts to develop and commercialize our product candidates and to identify and discover additional potential product candidates.

Our RAP Platform

We believe our RAP Platform can unlock the potential of the human genome and have broad applications across a range of diseases caused by sub-optimal levels of protein expression. Our technology is based upon the pioneering work in transcription regulation conducted by our co-founders, Richard Young, PhD and Leonard Zon, MD. We have built our RAP Platform to identify and characterize every regRNA that controls protein-coding genes and to develop novel ASO-based therapeutics to modulate regRNA activity to increase the expression of protein-coding genes of interest and thereby address the underlying cause of genetic diseases. Based on our proprietary mapping of regRNAs and screening and optimizing of ASOs, we have established a leadership position in regRNA-targeting therapies. Our goal is to be the preeminent company focused on discovering, developing and delivering regRNA-targeting therapeutics to patients. We believe that the ability to upregulate genes selectively through targeting regRNA could provide a new way to treat a wide range of human diseases and has the potential to become a class of new medicines.

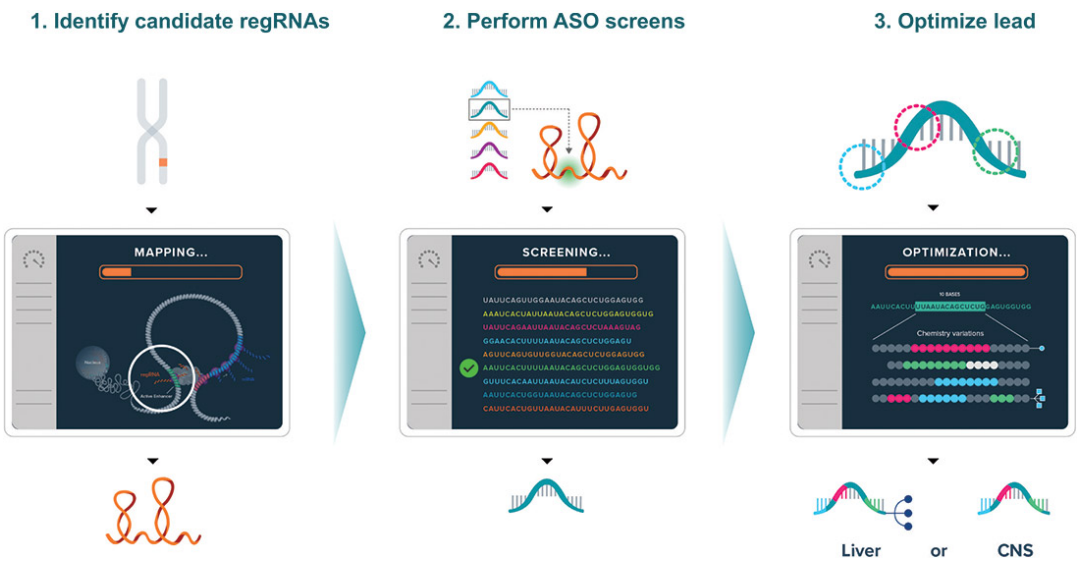
At present, very few regRNAs are described in public genomic databases, as they are often expressed at low levels and their importance was not fully understood. Our RAP Platform utilizes next-generation sequencing technologies and custom sequence analyses to map the active regulatory elements controlling every expressed gene. These data empower our proprietary machine learning algorithm, known as EPIC, to identify the specific control elements that regulate any gene of interest in the most specific manner, including elements that may restrict gene expression to a particular cell type. This enables us to identify the exact sites of regRNA synthesis and ultimately map the complete sequence of every candidate regRNA to target for therapeutic gene control. To date, we have mapped multiple cell types in as little as three months, comprising a number of potentially addressable diseases in the liver, CNS, heart, skeletal muscle and immune system. Our in-house development and application of this technology has enabled us to identify tens of thousands of enhancer and promoter regRNA sequences and their key biological properties, resulting in what we believe to be the most robust regRNA dataset available.

We combine our RAP Platform with ASO chemistry that has been utilized and validated in U.S. Food and Drug Administration, or FDA,-approved products to develop programmable RNA Actuators that are designed to precisely

upregulate gene expression at the transcriptional level. Once a target gene is nominated, our RAP Platform rapidly identifies the controlling regRNA sequence, and we perform ASO screens to identify regions where ASO binding results in optimal upregulation of that target gene. Further rational design is applied to the ASOs identified in the screen. Our proprietary technology enables us to design RNA Actuators that optimize for specificity by avoiding binding to regRNAs that act on more than one gene and any other similar sequences found elsewhere in the transcriptome. As a result, our sequence-specific approach enables us to precisely target regRNA transcripts to increase gene expression. Our approach is designed to enable the efficient and systematic creation of RNA Actuators to target regRNAs of interest. Building upon the power of this technology, our RNA Actuators can be programmed to engage regRNA targets, producing tunable increases in protein expression. While other ASOs have received regulatory approval, no regulatory authorities to date have approved ASOs that are directed towards regRNAs and, as a result, there is uncertainty as to the safety and efficacy profile of our product candidates compared to currently approved ASOs.

The key steps involved in our RAP Platform are illustrated below:

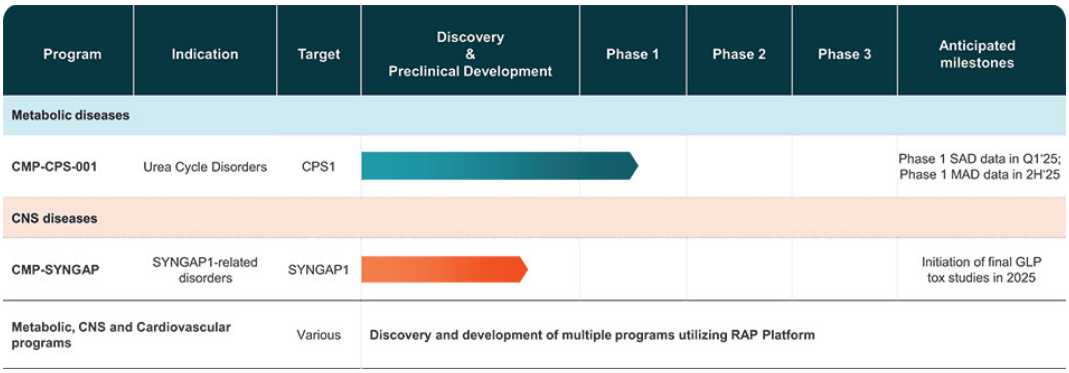
Our proprietary RAP Platform



We design RNA Actuators to leverage existing oligonucleotide delivery approaches to enable drug delivery to specific types of tissues throughout the body. We believe our RAP Platform can address any disease where a modest increase in protein expression has the potential to be clinically meaningful, including haploinsufficient diseases or recessive loss-of-function diseases. Furthermore, as we continue to map regRNAs and conduct ASO screens in more cell types, the data generated will improve the algorithms we use to identify the candidate regRNAs to specifically control gene expression. We believe the knowledge and learnings from our initial programs will significantly expedite selection of lead candidates and position us to rapidly expand our pipeline.

Our pipeline

We are leveraging our RAP Platform to advance a pipeline of programs initially focused on metabolic and CNS disorders with validated disease biology and attractive potential market opportunities due to the significant unmet need of affected patients. We retain exclusive, worldwide development and commercialization rights to all of our product candidates and discovery programs.



CMP-CPS-001: Potential treatment for urea cycle disorders

Based on our preclinical studies, we believe our lead product candidate, CMP-CPS-001, has the potential to be the first disease-modifying therapy for the treatment of the most prevalent UCDs. UCDs are a group of severe, inherited metabolic diseases caused by mutations in the genes that encode one or more of the eight enzymes and transporters necessary to convert ammonia into urea, which is then excreted from the body. The inability of the body to properly metabolize ammonia leads to the accumulation of toxic systemic levels in circulation, ultimately resulting in severe health outcomes, such as neurologic disability, seizure and death. UCDs occur across all age groups, from infants to adults, and mild symptoms may go unnoticed until a stressor, such as illness, surgery, protein consumption or environmental stress, overwhelms compensatory functions, resulting in hyperammonemic crisis, or extremely high levels of ammonia. The prevalence of UCDs is estimated to be approximately 3,700 patients in the United States, or U.S., of which we estimate are late onset, defined as having severe symptom onset after one month of life, and 96% of these late onset patients have enzyme deficiencies we can address. The incidence of UCDs in the U.S. is estimated to be approximately 1 in 35,000 births, with similar prevalence and incidence estimated for Europe. The most common UCD, accounting for approximately 60% of UCD diagnoses, is ornithine transcarbamylase, or OTC, deficiency, caused by mutations in the *OTC* gene. The next two most common genetic subtypes are caused by mutations in the genes coding for the enzymes argininosuccinate lyase, or ASL, and argininosuccinate synthetase, or ASS1, deficiencies which affect approximately 16% and 14% of UCD patients, respectively.

There are no FDA-approved, disease-modifying therapies to treat the most prevalent UCDs. The standard of care is supportive in nature and intended to reduce the frequency of, but not eliminate, hyperammonemic crises. Current protocols for patients involve efforts to lower plasma ammonia levels. Reduction in plasma ammonia is achieved through nitrogen scavengers to remove excess nitrogen, along with the dosing of supplemental citrulline. These nitrogen scavenger agents carry an onerous pill regimen and significantly diminish the quality of life for patients. Longer-term maintenance regimens involve strict adherence to a low-protein diet along with the prophylactic use of nitrogen scavenger agents. When necessary, hemodialysis is used to reduce ammonia concentrations. The existing supportive measures are not sufficient, with many patients suffering neurological disability and premature death. Therapies currently in development are targeting only a select subgroup of patients with UCDs, which includes those with OTC deficiency and patients 12 years and older. We have designed CMP-CPS-001 to be broadly applicable to UCD patients and to overcome the limitations of the current standard of care as well as programs in development for the treatment of late onset UCDs by using an established ASO modality and convenient once-monthly subcutaneous administration in order to provide UCD patients with the potential for a safe and efficacious treatment option. We are initially targeting our development of CMP-CPS-001 in the most prevalent late-onset patients (those with OTC, ASL and ASS1 deficiencies, which together constitute more than 80% of patients with UCDs) and we may expand into additional groups of patients with less common forms of UCD. The FDA granted Rare Pediatric Disease designation to CMP-CPS-001 for the treatment of UCDs in August 2024 and granted orphan drug designation to CMP-CPS-001 for the treatment of UCDs in September 2024.

CMP-CPS-001 is designed to improve urea cycle activity by amplifying expression of CPS1, a key enzyme that catalyzes the first step of the urea cycle, by binding to a CPS1-specific regRNA. CMP-CPS-001 is a subcutaneously injected ASO conjugated to N-acetylgalactosamine, or GalNAc, a ligand that enables targeted delivery to the liver, designed to be administered monthly. Increasing *CPS1* expression enhances the metabolism of ammonia and upregulates multiple urea cycle enzymes, including OTC, resulting in elevated urea cycle activity. Our RAP Platform enabled us to (i) identify the key enhancer modulating *CPS1* expression, (ii) screen ASOs directed to the regRNAs expressed by this enhancer, and (iii) generate a lead RNA Actuator designed to increase *CPS1* expression.

Our preclinical studies have demonstrated that modulating the activity of the target regRNA increases expression of the *CPS1* gene, resulting in increased CPS1 enzyme levels, which allows for more ammonia to be converted into urea, thereby lowering ammonia levels to normal, healthy ranges. This includes studies in a mouse model where we demonstrate that increasing *Cps1* expression can overcome a partial loss of function mutation in the urea cycle enzyme, *Otc*, and improve ammonia clearance. These preclinical studies also demonstrated that CMP-CPS-001 can upregulate the production of multiple enzymes responsible for converting ammonia into urea, which supports our pan-UCD approach. In non-human primate, or NHP, studies, the administration of CMP-CPS-001 increased the synthesis of urea, commonly referred to as ureagenesis. In these NHP studies, labeled sodium acetate was used as part of a ureagenesis rate test, or URT, to measure the metabolic output of the urea cycle. Carbaglu, approved for ultra-rare *N*-acetylglutamate synthesase, or NAGS-deficient patients, utilized the URT in healthy volunteers and showed that minimal increases in ureagenesis translated to substantial ammonia reductions in NAGS-deficient patients. Rates of ureagenesis were found to exceed those achieved by placebo in a statistically significant manner. This assay is also being used in our Phase 1 clinical trial. An increase in the metabolic output of the urea cycle, as indicated by an increase in the amount of labeled sodium acetate metabolized, is expected to correlate with an increase in the amount of ammonia metabolized. Although we believe that an increase in ureagenesis in our Phase 1 clinical trial may correspond with clinically meaningful improvements in ammonia metabolism in UCD patients, ureagenesis is not an established clinical endpoint and the URT results obtained in our Phase 1 clinical trial in healthy adult volunteers should not be interpreted as evidence of efficacy of CMP-CPS-001. For a further discussion of our use of this assay, please see “Risk factors—The outcome of preclinical studies and earlier-stage clinical trials may not be predictive of future results or the success of later preclinical studies and clinical trials.” We are evaluating CMP-CPS-001 in a randomized, double-blind and placebo-controlled Phase 1 clinical trial to evaluate safety, tolerability and pharmacokinetics in healthy volunteers in Australia. We expect to report Phase 1 clinical trial data from all four cohorts of the SAD portion in the first quarter of 2025 and from the MAD portion in the second half of 2025.

As of September 2024, the Safety Review Committee, or SRC, of our Phase 1 clinical trial of CMP-CPS-001 has reviewed all reported safety data, including treatment emergent adverse events from SAD cohorts 1 through 3 and approved dose escalation to cohort 4, the highest dose set forth in the trial protocol. We have also completed dosing of all four SAD cohorts and of cohort 1 of the MAD portion of the Phase 1 clinical trial of CMP-CPS-001. A planned, safety-focused interim analysis was performed to evaluate blinded safety data for SAD cohorts 1 and 2 as of August 6, 2024. To date, no safety trends of concern have been observed, and CMP-CPS-001 has been well tolerated.

CMP-SYNGAP: Program for the treatment for SYNGAP1-related disorders

Our initial CNS development program, CMP-SYNGAP, aims to address the underlying cause of SYNGAP1-related disorders. SYNGAP1-related disorders are a group of neurodevelopmental conditions caused by pathogenic variants in the *SYNGAP1* gene leading to a haploinsufficient state that reduces SYNGAP protein levels by as much as 50%. SYNGAP plays a critical role in the development of cognition and proper synaptic function. Epilepsy is a common characteristic of these disorders and nearly all patients present with some degree of developmental delay and cognitive impairment. Patient estimates for SYNGAP1-related disorders vary significantly. We estimate that 5,000 individuals have been diagnosed with these disorders in the U.S., though we believe many more with mild symptoms remain undiagnosed and are not included in this estimate. Incidence estimates of SYNGAP1-related

disorders range from 1 to 40 in 100,000 individuals and the disorder is reported to represent 0.5% to 1.0% of all intellectual disability cases.

There are no FDA-approved, disease-modifying therapies for SYNGAP1-related disorders. There is also no definitive treatment protocol, which is dependent on seizure type and severity and other neurological characteristics. Treatment is often limited to supportive physical, occupational and speech therapy. A combination of non-specific anti-seizure medications may be prescribed to treat seizures, though SYNGAP1-related disorders have proven difficult to control with available therapeutics. As many as 50% of patients do not adequately respond to medication, in which case implantable devices, such as those for vagus nerve stimulation, may offer incremental therapeutic benefit.

We are advancing our CMP-SYNGAP program to address the significant unmet need for these patients by targeting the direct cause of SYNGAP1-related disorders, haploinsufficiency, which we believe is amenable to targeting through regRNAs. Our CMP-SYNGAP program is a novel approach that targets the *SYNGAP1* gene at the transcriptional level to restore SYNGAP function and improve symptoms, by utilizing an intrathecally delivered ASO. We have identified specific regRNA sequences involved in *SYNGAP1* transcription and leverage our RAP Platform to generate ASOs that function to increase *SYNGAP1* transcription. Upregulation of *SYNGAP1* gene expression may increase SYNGAP protein levels in amounts sufficient to yield therapeutic benefit. Our preclinical studies demonstrated a dose-dependent increase in SYNGAP1 mRNA levels accompanied by a reduction in *SYNGAP1* expression. We expect to initiate final good laboratory practices, or GLP, toxicology studies in 2025 to enable the filing of a clinical trial application.

Our team

Our management team brings a depth of experience and knowledge in platform research, drug discovery and development and commercialization. Our team is led by our President and Chief Executive Officer Josh Mandel-Brehm, who brings over 18 years of leadership experience with life sciences companies, including business development and operational experience from his time at Biogen, Sanofi and Genzyme; David Bumcrot, PhD, our Chief Scientific Officer, an industry expert who was responsible for the initial therapeutic initiatives utilizing CRISPR technology at Editas Medicine and the start of RNAi therapeutic development at Alnylam Pharmaceuticals; Yuri Maricich, MD, our Chief Medical Officer, who led clinical, regulatory, quality and medical affairs functions as a member of the executive team of several early-stage biopharmaceutical companies, including Pear Therapeutics; and Kelly Gold, our Chief Financial Officer, who was previously part of the corporate finance and business planning groups at Biogen and the healthcare investment banking group of Deutsche Bank.

Our technology is based on the pioneering work in transcription regulation conducted by our distinguished co-founders, Richard Young, PhD, of the Whitehead Institute for Biomedical Research and the Massachusetts Institute of Technology, and Leonard Zon, MD, who is affiliated with Boston Children's Hospital and the Harvard Medical School.

Since our inception, we have raised $188.3 million. Our investor group includes entities affiliated with 5AM Ventures; AH Bio Fund I, L.P.; Everest Aggregator, LP, an affiliate of Enavate Sciences; entities affiliated with the Kaiser Permanente Group Trust; entities affiliated with Northpond Ventures, LLC; entities affiliated with Polaris Partners; and SMRS-TOPE LLC. Prospective investors should not rely on the investment decisions of our existing investors, as these investors may have different risk tolerances and strategies and have purchased their shares in prior offerings at prices lower than the price offered to the public in this offering. In addition, some of these investors may not be subject to reporting requirements under Section 16 of the Securities Exchange Act of 1934, and, thus, prospective investors may not necessarily know the total amount of investment by each of the prior investors and if and when some of the prior investors decide to sell any of their shares. See the sections titled "Certain relationships and related person transactions" and "Principal stockholders" for more information on prior purchases by and current holdings of these stockholders.

Our strategy

Our mission has been to decode the rules of human gene expression to develop a new class of medicines that can transform the treatment paradigm for a wide range of genetic-based diseases. To accomplish this, we leverage

our proprietary RAP Platform to map cells and discover regRNAs that regulate protein-coding genes in diseases characterized by sub-optimal levels of protein expression where modest increases in protein production can have a clinically meaningful therapeutic effect on patients. The key elements of our strategy include:

- Advance our lead candidate, CMP-CPS-001, through clinical trials and become the first approved disease-modifying therapy for UCDs.
- Rapidly advance our disease-modifying candidate for SYNGAP1-related disorders into clinical development.
- Leverage our RAP Platform to expand our pipeline in metabolic, CNS and other disease areas characterized by sub-optimal levels of protein expression.
- Leverage validated modalities to efficiently advance programs through clinical development and regulatory approval.
- Pursue strategic partnerships to maximize the value of our product candidates and RAP Platform.
- Build a leading regRNA-targeting therapeutic company.

Risks associated with our business

Our business is subject to numerous risks that you should be aware of before making an investment decision. These risks are described more fully in the “Risk factors” section of this prospectus immediately following this prospectus summary and include, among others:

- We have incurred significant losses since our inception, have no products approved for sale and we expect to incur losses for the foreseeable future;
- Even if this offering is successful, we will require substantial additional capital to finance our operations, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce, or terminate our development programs, commercialization efforts or other operations;
- Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates;
- Our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern in its report on our audited financial statements included in this prospectus;
- We are early in our development efforts. Our product candidates are in varying stages of preclinical and clinical development and we have not completed a clinical trial of any product candidate. As a result, it will be many years before we commercialize a product candidate, if ever. If we are unable to identify and advance product candidates through preclinical studies and clinical trials, obtain marketing approval and ultimately commercialize them, or experience significant delays in doing so, our business will be materially harmed;
- Our business is highly dependent on our lead product candidate, CMP-CPS-001, as our sole clinical-stage program, and we must complete clinical testing before we can seek regulatory approval and begin commercialization of any of our other product candidates. If we are unable to obtain regulatory approval for, and successfully commercialize, CMP-CPS-001, our business may be materially harmed and such failure may affect the viability of our other product candidates;
- Drug development is a lengthy and expensive process, and preclinical and clinical testing is uncertain as to the outcome. We may encounter substantial delays in the commencement, enrollment or completion of our clinical trials and may never advance to clinical trials, or we may fail to demonstrate safety and effectiveness to the satisfaction of applicable regulatory authorities, which could prevent us from advancing or commercializing our product candidates on a timely basis, if at all;

- If any of our current or any future product candidates cause undesirable side effects or have other unexpected adverse properties, such side effects or properties could delay or prevent regulatory approval, limit the commercial potential or result in significant negative consequences following any potential marketing approval;
- We face substantial competition, which may result in others discovering, developing or commercializing products before us or more successfully than we do;
- We may enter into collaborations with third parties for the research, development and commercialization of certain of the product candidates we may develop. If any such collaborations are not successful, we may not be able to capitalize on the market potential of those product candidates;
- Our future success depends on our ability to retain key executives and to attract, retain and motivate qualified personnel;
- We may encounter difficulties in managing our growth and expanding our operations successfully;
- We currently depend on third-party suppliers for the manufacture of our product candidates. The loss of these or future third-party suppliers, or their inability to provide us with sufficient supply, could harm our business;
- Our rights to develop and commercialize our product candidates are subject, in part, to the terms and conditions of licenses granted to us by third parties. If we fail to comply with our obligations under these arrangements or otherwise experience disruptions to our business relationships with our current or any future licensors, we could lose such intellectual property rights that are important to our business;
- Third parties may initiate legal proceedings alleging that we are infringing, misappropriating or otherwise violating their intellectual property rights, the outcome of which would be uncertain and could harm our business;
- If we or our licensors are unable to obtain, maintain, enforce and adequately protect our intellectual property rights with respect to our product candidates and technology, or if the scope of any patent or other intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to successfully develop and commercialize our product candidates and technology may be adversely affected. Further, we do not currently own or in-license any issued patents directed to the composition of matter, or methods of use, of our product candidates; if we fail to obtain such patents, our competitors may be able to develop, make or market products identical to our product candidates after expiration of any applicable regulatory exclusivities;
- We rely, and intend to continue to rely, on third parties to perform some of our preclinical studies and conduct our clinical trials. If these third parties do not successfully carry out their contractual duties, fail to comply with applicable regulatory requirements, or do not meet expected deadlines, our development programs may be delayed or subject to increased costs or we may be unable to obtain regulatory approval for or commercialize our product candidates;
- There has been no public market for our common stock. An active, liquid, and orderly market for our common stock may not develop, or we may in the future fail to satisfy the continued listing requirements of Nasdaq, and investors may not be able to resell their common stock at or above the initial public offering price or at all; and
- The trading price of the shares of our common stock could be highly volatile, and purchasers of our common stock could incur substantial losses.

If we are unable to adequate address these and other risks we face, our business, results of operations, financial condition and prospects may be harmed.

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, or the JOBS Act. For so long as we remain an emerging growth company, we may take advantage of relief from certain reporting requirements and other burdens that are otherwise applicable generally to public companies. These provisions include:

- reduced obligations with respect to financial data, including only being required to present 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;
- an exception from compliance with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, as amended;
- reduced obligations with respect to disclosure about our executive compensation arrangements in our periodic reports, proxy statements and registration statements;
- exemptions from the requirements of holding non-binding advisory votes on executive compensation or golden parachute arrangements; 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 provisions until the last day of the fiscal year ending after the fifth anniversary of this offering or such earlier time that we no longer qualify as an emerging growth company. We will cease to qualify as an emerging growth company on the date that is the earliest of: (i) the last day of our fiscal year following the fifth anniversary of the date of the completion of this offering, (ii) the last day of the fiscal year in which we have more than $1.235 billion in total annual gross revenues, (iii) the date on which we are deemed to be a "large accelerated filer" under the rules of the U.S. Securities and Exchange Commission, which means the market value of our common stock that is held by non-affiliates exceeds $700 million as of the prior June 30th, or (iv) the date on which we have issued more than $1.0 billion of non-convertible debt over the prior three-year period. We may choose to take advantage of some but not all of these reduced reporting burdens. We have taken advantage of certain reduced reporting requirements in this prospectus. Accordingly, the information contained herein may be different than you might obtain from other public companies in which you hold equity interests.

In addition, under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to take advantage of the extended transition period to comply with new or revised accounting standards and to adopt certain of the reduced disclosure requirements available to emerging growth companies. As a result of the accounting standards election, we will not be subject to the same implementation timing for new or revised accounting standards as other public companies that are not emerging growth companies until such time that we either (i) irrevocably elect to "opt out" of such extended transition period or (ii) no longer qualify as an emerging growth company, which may make comparison of our financials to those of other public companies more difficult. As a result of these elections, the information that we provide in this prospectus 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 million and our annual revenue was less than $100 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 million or (ii) our annual revenue was less than $100 million during the most recently completed fiscal year and the market value of our shares held by non-affiliates is less than $700 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. We may continue to be a smaller reporting company until the fiscal year following the determination that we no longer meet the requirements necessary to be considered a smaller reporting company.

Corporate information

We were originally incorporated under the laws of the State of Delaware in 2015 under the name Marauder Therapeutics, Inc. and began operations in 2016. We changed our name to CAMP4 Therapeutics Corporation in March 2018. Our principal executive offices are located at One Kendall Square, Building 1400 West, 3rd Floor, Cambridge, Massachusetts 02139 and our telephone number is (617) 651-8867. Our website address is www.camp4tx.com. The information contained on, or accessible through, our website is not incorporated by reference into this prospectus. We have included our website in this prospectus solely as an inactive textual reference.

“CAMP4,” “RAP Platform,” “RNA Actuator” and our other registered or common law trademarks, trade names or service marks appearing in this prospectus are the property of CAMP4 Therapeutics Corporation and are registered as trademarks in the U.S. and other countries. This prospectus also contains references to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use or display of other entities’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

The offering

Common stock offered by us	shares.
Underwriters' option to purchase additional shares	We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase up to additional shares of our common stock.
Common stock to be outstanding immediately after this offering	shares (or shares if the underwriters exercise in full their option to purchase additional shares).
Use of proceeds	We estimate that our net proceeds from this offering will be approximately $ million (or approximately $ million if the underwriters exercise in full their option to purchase up to additional shares of common stock), assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. We currently intend to use the net proceeds from this offering, together with our existing cash and cash equivalents, (i) to advance the clinical development of CMP-CPS-001 for the treatment of UCDs, including through the completion of the SAD and MAD portions of our current Phase 1 clinical trial; (ii) for the advancement of our CMP-SYNGAP program for the treatment of SYNGAP1-related disorders, including the designation of a development candidate and initiation of GLP toxicology studies; (iii) for the expansion of our RAP Platform, including advancement of the research and development of our other preclinical and discovery programs; and (iv) the remainder for working capital and other general corporate purposes. See the section titled "Use of proceeds" for additional information.
Risk factors	You should read the section titled "Risk factors" for a discussion of factors you should consider carefully, together with all the other information included in this prospectus, before deciding to invest in our common stock.
Proposed Nasdaq Global Market symbol	"CAMP"

The number of shares of our common stock to be outstanding immediately following the completion of this offering is based on 136,155,194 shares of our common stock outstanding as of June 30, 2024, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock, including 62,389,791 shares of our Series A Prime convertible preferred stock and 68,258,635 shares of our Series B convertible preferred stock, into an aggregate of 130,648,426 shares of our common stock, based on an 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, immediately prior to the completion of this offering. The number of shares of our common stock to be outstanding after this offering excludes:

- 28,044,498 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2024 pursuant to our Amended and Restated 2016 Stock Option and Grant Plan, or the 2016 Plan, with a weighted-average exercise price of $0.57 per share;
- 10,746,586 shares of our common stock reserved for future issuance under the 2016 Plan as of June 30, 2024, which shares will cease to be available for issuance at the time our 2024 Equity Incentive Plan, or the 2024 Plan, becomes effective in connection with this offering;
- 1,602 shares of our common stock issuable upon the exercise of warrants outstanding at June 30, 2024 at a weighted-average exercise price of $0.9998556 per share;
- shares of our common stock reserved for future issuance under the 2024 Plan, which will become effective in connection with this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan; and
- shares of our common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan, or the ESPP, which will become effective in connection with this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the ESPP.

Unless otherwise indicated or the context otherwise requires, all information in this prospectus, including the number of shares of common stock that will be outstanding after this offering, reflects and assumes the following:

- the filing and effectiveness of our amended and restated certificate of incorporation, or Restated Charter, and the adoption of our amended and restated bylaws, or Restated Bylaws, each of which will occur immediately prior to the completion of this offering;
- the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 130,648,426 shares of our common stock, based on an 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, immediately prior to the completion of this offering;
- the conversion of outstanding warrants to purchase 1,602 shares of our Series A Prime convertible preferred stock into warrants to purchase 1,602 shares of common stock immediately prior to the completion of this offering;
- no vesting or exercise of the outstanding stock options or warrants described above subsequent to June 30, 2024; and
- no exercise by the underwriters of their option to purchase up to an additional shares of common stock in this offering.

Summary consolidated financial data

The following tables set forth our summary consolidated financial data for the six months ended June 30, 2024 and 2023 and for the years ended December 31, 2023 and 2022. We have derived the statement of operations and comprehensive loss data for the years ended December 31, 2023 and 2022 from our audited consolidated financial statements included elsewhere in this prospectus. The statement of operations data for the six months ended June 30, 2024 and 2023 and the balance sheet data as of June 30, 2024 have been derived from our unaudited consolidated financial statements included elsewhere in this prospectus. In the opinion of management, the unaudited data reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the financial information in those statements.

You should read the following summary consolidated financial data together with our consolidated financial statements and the related notes appearing elsewhere in this prospectus and the section of this prospectus titled “Management’s discussion and analysis of financial condition and results of operations.” The summary financial data in this section are not intended to replace our financial statements and are qualified in their entirety by our financial statements and related notes included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that should be expected in the future.

	Six months ended June 30,		Year ended December 31,	
(In thousands, except share and per share data)	**2024**	**2023**	**2023**	**2022**
Revenue:				
Research and collaboration revenue	$ —	$ —	$ 350	$ —
Operating Expenses:				
Research and development	19,129	20,136	40,616	34,771
General and Administrative	6,408	5,930	11,613	10,230
Total operating expenses	25,537	26,066	52,229	45,001
Loss from operations	(25,537)	(26,066)	(51,879)	(45,001)
Other income (expense), net:				
Interest income	626	1,550	2,808	904
Other (expense)	(117)	(90)	(220)	(95)
Total other income (expense), net	509	1,460	2,588	809
Net Loss	$ (25,028)	$ (24,606)	$ (49,291)	$ (44,192)
Net loss per share attributable to common stockholders, basic and diluted(1)	$ (4.69)	$ (5.85)	$ (11.13)	$ (12.61)
Weighted average shares of common stock outstanding, basic and diluted(1)	5,341,728	4,208,243	4,429,564	3,503,242
Pro forma net loss per share attributable to common stockholders, basic and diluted(2)	$ (0.18)		$ (0.36)	
Pro forma weighted average shares of common stock outstanding, basic and diluted(2)	135,990,154		135,079,592	

(1) See Note 2 to our financial statements appearing elsewhere in this prospectus for further details on the calculation of basic and diluted net loss per share attributable to common stockholders and the weighted average number of shares used in the computation of the per share amounts.

(2) The pro forma basic and diluted net loss per share for the six months ended June 30, 2024 and the year ended December 31, 2023 has been computed to give effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 130,648,426 shares of common stock. The unaudited pro forma basic and diluted net loss per share for the six months ended June 30, 2024 and the year ended December 31, 2023 was computed using the weighted average number of shares of common stock outstanding, including the pro forma effect of the conversion of all outstanding shares of our preferred stock into shares of common stock, as if the conversion had occurred on the later of the first day of the period presented or the original issuance dates of the respective preferred stock.

(in thousands)	As of June 30, 2024 Actual	Pro forma(2)	Pro forma as adjusted(3)
Balance Sheet Data:			
Cash and cash equivalents	$ 12,607	$	$
Restricted cash	1,624		
Working capital(1)	7,001		
Total assets	29,944		
Convertible preferred stock	162,147		
Total stockholders' (deficit) equity	(147,114)		

(1) We define working capital as current assets less current liabilities. See our financial statements and the related notes included elsewhere in this prospectus for further details regarding our current assets and current liabilities.

(2) The pro forma balance sheet data give effect to (i) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 130,648,426 shares of our common stock, based on an 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, immediately prior to the completion of this offering, and (ii) the filing and effectiveness of our Restated Charter, which will be effective immediately prior to the completion of this offering.

(3) The pro forma as adjusted balance sheet data gives effect to (i) the pro forma adjustments described in footnote (2) above, and (ii) the issuance and sale of shares of our common stock offered in this offering at an 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, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted 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. A $1.00 increase or 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 or decrease, as applicable, the pro forma as adjusted amount of each of cash, 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 the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of 1,000,000 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, 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 the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

Risk factors

Investing in our common stock involves a high degree of risk. Before deciding to invest in our common stock, you should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including in the section titled "Management's discussion and analysis of financial condition and results of operations" and in our audited consolidated financial statements and related notes. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that affect us. If any of the following risks are realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the price of our common stock could decline, and you could lose part or all of your investment.

Risks related to our financial position and need for additional capital

We have incurred significant losses since our inception, have no products approved for sale and we expect to incur losses for the foreseeable future.

We are a clinical-stage biopharmaceutical company in the early stages of development with a limited operating history. Since our inception, we have focused primarily on developing our proprietary RNA Actuating Platform, or RAP Platform, identifying, developing and progressing our product candidates through preclinical and clinical development, organizing and staffing our company, research and development activities, establishing and protecting our intellectual property portfolio, and raising capital. Investment in biopharmaceutical product development is highly speculative because it entails substantial upfront capital expenditures and significant risk that any potential product candidate will fail to demonstrate adequate effect or an acceptable safety profile, gain regulatory approval and become commercially viable. We are still in the early stages of development of our product candidates and our lead product candidate is only in a Phase 1 clinical trial. We have no products licensed for commercial sale and have not generated any revenue to date, and we continue to incur significant research and development and other expenses related to our ongoing operations. As a result, we are not profitable and have incurred losses in each period since our inception. For the years ended December 31, 2023 and 2022, we reported net losses of $49.3 million and $44.2 million, respectively. For the six months ended June 30, 2024 and 2023, we reported net losses of $25.0 million and $24.6 million, respectively. As of June 30, 2024, we had an accumulated deficit of $185.0 million. We expect to continue to incur significant losses for the foreseeable future, and we expect these losses to increase as we continue the research and development of, and seek regulatory approvals for, our lead product candidate CMP-CPS-001 for the treatment of urea cycle disorders, or UCDs, along with any other current or future product candidates we may develop.

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

- advance our lead product candidate, CMP-CPS-001, through clinical trials;
- finalize preclinical development for our program for SYNGAP1-related disorders;
- conduct preclinical studies and clinical trials of any future product candidates;
- expand the capabilities of our RAP Platform and seek to identify and develop additional product candidates;
- seek to identify additional product candidates;
- seek marketing approvals for any product candidates that successfully complete clinical trials;
- obtain, expand, maintain, defend and enforce our intellectual property portfolio;
- hire additional clinical, regulatory and scientific personnel;
- contract with manufacturing sources for preclinical and clinical development of any future product candidates we may develop and commercial supply with respect to any such product candidates that receive regulatory approval;

- ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval; and
- add operational, legal, compliance, financial and management information systems and personnel to support our research, product development and future commercialization efforts, as well as to support our operations as a public company.

Even if we obtain regulatory approval for, and are successful in commercializing, one or more of any of our current and any future product candidates, we will continue to incur substantial research and development and other costs to develop and market additional product candidates. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. The size of our future net losses will depend, in part, on the rate of future growth of our expenses and our ability to generate revenue. Our prior losses and expected future losses have had and will continue to have an adverse effect on our stockholders' equity and working capital.

We have never generated revenue from product sales and may never achieve or maintain profitability.

Our product candidates are in varying stages of preclinical and clinical development. To date, we have not generated any revenue. We have not completed a clinical trial of any product candidate, and we expect that it will be several years, if ever, before we have a product candidate ready for commercialization. To become and remain profitable, we must succeed in developing, obtaining the necessary regulatory approvals for, and eventually commercializing a product or products that generate significant revenue. The ability to achieve this success will require us to be effective in a range of challenging activities, including:

- identifying product candidates and completing preclinical and clinical development of any product candidates we may identify;
- obtaining regulatory approval for any of our current or future product candidates;
- manufacturing, marketing and selling any products for which we may obtain regulatory approval;
- achieving market acceptance of any products for which we obtain regulatory approval as a viable treatment option; and
- satisfying any post-marketing requirements.

Many of the factors listed above are beyond our control, and could cause us to experience significant delays or prevent us from obtaining regulatory approvals or commercialize our product candidates. We are in the preliminary stages of many of these activities. We may never succeed in these activities and, even if we do, we may never generate revenues that are significant enough to achieve profitability. Because of the numerous risks and uncertainties associated with product development, we are unable to accurately estimate or know the nature, timing or costs of the efforts that will be necessary to complete the preclinical and clinical development and commercialization of any of our current or future product candidates or when, or if, we will be able to generate revenues or achieve profitability.

If we are successful in obtaining regulatory approval to market one or more of our products, our revenue will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval, the accepted price for the product, the ability to obtain coverage and reimbursement, and whether we own the commercial rights for that territory. If the number of our addressable patients is not as significant as we estimate, the indication approved by regulatory authorities is narrower than we expect, or the treatment population is narrowed by competition, physician choice or treatment guidelines, we may not generate significant revenue from sales of such products, even if approved.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable could impair our ability to raise capital, maintain our research and development efforts, expand our business or even continue our operations. A decline in the value of our company could also cause our stockholders to lose all or part of their investment.

Even if this offering is successful, we will require substantial additional capital to finance our operations, and a failure to obtain this necessary capital when needed on acceptable terms, or at all, could force us to delay, limit, reduce, or terminate our development programs, commercialization efforts or other operations.

Our operations have consumed substantial amounts of cash since inception. We expect our expenses to substantially increase in connection with our ongoing activities, particularly as we conduct our ongoing and planned clinical trials and preclinical studies and potentially seek regulatory approval for our product candidates and any future product candidates we may develop. If we obtain regulatory approval for any of our product candidates, we also expect to incur significant commercialization expenses related to product manufacturing, marketing, sales, and distribution. Because the outcome of any clinical trial or preclinical study is highly uncertain, we cannot reasonably estimate the actual amount of capital necessary to successfully complete the development and commercialization of our product candidates. Furthermore, following the completion of this offering, we expect to incur additional costs associated with operating as a public company.

Based on our current operating plan, we believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will be sufficient to fund our operating expenses and capital expenditure requirements into . We have based these estimates on assumptions that may prove to be wrong, and we could deplete our capital resources sooner than we currently expect. Our operating plans and other demands on our cash resources may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned. The net proceeds of this offering, together with our existing capital, may not be sufficient to complete development of any of our product candidates, or any future product candidates we may identify, and after this offering, we will require substantial capital to advance our product candidates through clinical trials, regulatory approval, and commercialization. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. Our ability to raise additional funds may be adversely impacted by global economic conditions, disruptions to, and volatility in, the credit and financial markets in the United States, or U.S., and worldwide, and diminished liquidity and credit availability. If the equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive. We cannot be certain that additional funding will be available on acceptable terms, or at all. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce, or eliminate our research and development programs or any future commercialization efforts, or even cease operations. We expect to finance our cash needs through public or private equity or debt financings or other capital sources, including potential collaborations, licenses, and other similar arrangements. In addition, 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 our product candidates.

Our future capital requirements will depend on many factors, including, but not limited to:

- the scope, timing and progress of our ongoing CMP-CPS-001 clinical trial;
- the initiation, type, number, scope, progress, expansions, results, costs and timing of preclinical studies and clinical trials of our product candidates and any future product candidates we may choose to pursue, including the costs of modification to clinical development plans based on feedback that we may receive from regulatory authorities and any third-party products used as combination agents in our clinical trials;
- the costs and timing of manufacturing for our product candidates, including commercial manufacturing at sufficient scale, if any product candidate is approved;
- the costs, timing and outcome of regulatory meetings and reviews of our product candidates or any future product candidates, including requirements of regulatory authorities in any additional jurisdictions in which we may seek approval and any future product candidates;
- the costs of obtaining, maintaining, enforcing and protecting our patents and other intellectual property and proprietary rights;

- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal control over financial reporting;
- the costs associated with hiring additional personnel and consultants as our clinical and preclinical activities increase and as we operate as a public company;
- the timing and payment of milestone, royalty or other payments we must make pursuant to our existing and potential future license or collaboration agreements with third parties;
- the costs and timing of establishing or securing sales and marketing capabilities if our product candidates or any product candidate is approved;
- our ability to achieve sufficient market acceptance, coverage, and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- patients' ability and willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors;
- the terms and timing of establishing and maintaining collaborations, licenses, and other similar arrangements; and
- costs associated with any products or technologies that we may in-license or acquire.

Conducting clinical trials and preclinical studies and discovering potential product candidates using our RAP Platform is an expensive and uncertain process, and we may never generate the necessary data or results required to obtain regulatory approval and commercialize our product candidates. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenue, if any, will initially be derived from sales of products that we do not expect to be commercially available for many years, if at all.

Raising additional capital may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, collaborations, strategic alliances and/or licensing arrangements. We do not have any committed external source of funds. To the extent that we raise additional capital through the sale of equity or convertible debt securities, our stockholders' ownership interests will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of common stockholders. Any debt financing or 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, selling or licensing our assets, making capital expenditures, declaring dividends or encumbering our assets to secure future indebtedness.

If we raise additional funds through collaborations, strategic alliances 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 or on terms acceptable to us, we may be required to delay, limit, reduce or eliminate some or all of our research and development programs, pipeline expansion or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern.

Based on our current operating plans, we do not have sufficient cash and cash equivalents to fund our operating expenses and capital expenditures for at least the next 12 months from the filing date of this prospectus. In its report accompanying our audited financial statements for the years ended December 31, 2023 and 2022, our independent registered public accounting firm included an explanatory paragraph stating that our recurring losses

from operation raise substantial doubt about our ability to continue as a going concern. Our future viability is dependent on our ability to generate cash from our operating activities or to raise additional capital to finance our operations. There is no assurance that we will succeed in obtaining sufficient funding on terms acceptable to us to fund continuing operations, if at all. The perception that we might be unable to continue as a going concern may also make it more difficult to obtain financing for the continuation of our operations on terms that are favorable to us, or at all, and could result in the loss of confidence by investors, suppliers and employees. If we are unable to continue as a going concern, we may have to liquidate our assets and may receive less than the value at which those assets are carried on our financial statements and it is likely that our investors will lose all or a part of their investment.

Risks related to the research and development of our product candidates

We are early in our development efforts. Our product candidates are in varying stages of preclinical and clinical development and we have not completed a clinical trial of any product candidate. As a result, it will be many years before we commercialize a product candidate, if ever. If we are unable to identify and advance product candidates through preclinical studies and clinical trials, obtain marketing approval and ultimately commercialize them, or experience significant delays in doing so, our business will be materially harmed.

We are early in our development efforts and our lead product candidate is only in a Phase 1 clinical trial. We have focused our efforts to date on developing our RAP Platform, identifying our programs and commencing the preclinical and clinical development of our product candidates. Our ability to generate product revenue, which we do not expect will occur for many years, if ever, will depend heavily on the successful development and eventual commercialization of our product candidates, which may never occur. We currently generate no revenue from sales of any product, and we may never be able to develop or commercialize a marketable product.

We are currently conducting a Phase 1 clinical trial of CMP-CPS-001 in Australia. Clinical trials conducted in Australia using “unapproved therapeutic goods,” or those that have not yet been evaluated by the Therapeutic Goods Association, or TGA, for quality, safety and efficacy, must occur pursuant to either the Clinical Trial Notification Scheme or the Clinical Trial Approval Scheme. In each case, the trial is supervised by a Human Research Ethics Committee, or HREC, an independent review committee set up under the guidelines of the Australian National Health and Medical Research Council that reviews, approves and provides continuing oversight of trial protocols and amendments, and of the methods and material to be used in obtaining and documenting informed consent of the trial subjects. Commencing clinical trials in the U.S. is subject to acceptance by the U.S. Food and Drug Administration, or the FDA, of an investigational new drug, or IND, application and finalizing the trial design based on discussions with the FDA and other regulatory authorities. In the event that the FDA or TGA requires us to complete additional preclinical studies or we are required to satisfy other requests prior to commencing clinical trials, the start of any future clinical trials may be delayed. Even after we receive and incorporate guidance from the FDA, an applicable HREC or the TGA, such authorities could disagree that we have satisfied their requirements to commence any clinical trial or continue or change their position on the acceptability of our trial design or the clinical endpoints selected, which may require us to complete additional preclinical studies or clinical trials or impose stricter approval conditions than we currently expect, which could delay the start or completion of such clinical trials or require more capital resources than we currently anticipate to start or complete such clinical trials.

We anticipate that for one or more of our product candidates, clinical trials will need to be conducted utilizing sites and patients in the European Union and the United Kingdom. Similar processes and risks are applicable to clinical trial applications, or CTAs, in the European Union as well as the United Kingdom as exist in other regions. Regulators for the European Union and/or for local countries may request additional preclinical studies or may reject the request to initiate clinical trials in humans. Requests for additional preclinical studies prior to commencing clinical trials may result in the delay of future clinical trials. Even after we receive and incorporate guidance from EU and/or local country regulators, the regulatory authorities may disagree with our position that we have satisfied their requirements, require additional preclinical studies or clinical trials, or refuse to approve the product candidate.

Commercialization of any of our current or future product candidates will require preclinical and clinical development; regulatory and marketing approval issued by regulators in any jurisdiction where we seek to commercialize such product candidates, such as the FDA, TGA and the European Commission, or EC, following a favorable assessment performed by the European Medicines Agency, or EMA; manufacturing supply, capacity and expertise; a commercial organization; and significant marketing efforts. The success of any of our current or future product candidates will depend on many factors, including the following:

- timely and successful completion of preclinical studies;
- acceptance of INDs or comparable foreign applications that allow commencement of clinical trials or future clinical trials for any product candidates we may develop;
- successful enrollment and completion of clinical trials, including under the FDA's current Good Clinical Practices, or GCPs, current Good Laboratory Practices, or GLPs, and any additional regulatory requirements from foreign regulatory authorities;
- positive results from our clinical trials that support a finding of safety and effectiveness and an acceptable risk-benefit profile in the intended populations;
- receipt of marketing approvals from applicable regulatory authorities;
- establishment of arrangements through our own facilities or with third-party manufacturers for clinical supply and, where applicable, commercial manufacturing capabilities;
- establishment, maintenance, defense and enforcement of patent, trademark, trade secret and other intellectual property protection or regulatory exclusivity for any product candidates we may develop;
- commercial launch of any product candidates we may develop, if approved, whether alone or in collaboration with others;
- obtaining and maintaining third-party coverage and adequate reimbursement;
- effectively competing against other therapies;
- acceptance of the benefits and use of our product candidates we may develop, including method of administration, if and when approved, by patients the medical community and third-party payors; and
- maintaining a continued acceptable safety profile of our products following regulatory approval.

If we do not succeed in one or more of these factors in a timely manner or at all, we could experience significant delays or an inability to successfully commercialize any product candidates we may develop, which would materially harm our business. If we are unable to advance our product candidates into and through clinical development, obtain regulatory approval and ultimately commercialize our product candidates, or experience significant delays in doing so, our business will be materially harmed.

Our business is highly dependent on our lead product candidate, CMP-CPS-001, as our sole clinical-stage program, and we must complete clinical testing before we can seek regulatory approval and begin commercialization of any of our other product candidates. If we are unable to obtain regulatory approval for, and successfully commercialize, CMP-CPS-001, our business may be materially harmed and such failure may affect the viability of our other product candidates.

There is no guarantee that any of our product candidates will proceed in preclinical or clinical development or achieve regulatory approval. The process for obtaining marketing approval for any product candidate is very long and risky and there will be significant challenges for us to address in order to obtain marketing approval as planned, if at all.

There is no guarantee that the results obtained in our ongoing Phase 1 clinical trial of CMP-CPS-001 or our planned future clinical trials will be sufficient to obtain regulatory approval. In addition, because CMP-CPS-001 is our most advanced product candidate, and because our future product candidates will be based on our RAP Platform and antisense oligonucleotide, or ASO, technology, if our lead product candidate encounters safety or

efficacy problems, developmental delays, regulatory issues, or other problems, our development plans and business related to our other future product candidates could be significantly harmed. A failure of our lead product candidate may affect the ability to obtain regulatory approval to continue or conduct clinical programs for our other or future product candidates.

Our approach to the discovery and development of product candidates based on our RAP Platform is unproven, and we may not be successful in our efforts to develop and commercialize our product candidates and to identify and discover additional potential product candidates.

The success of our business depends upon our ability to identify, develop and commercialize products based on our proprietary RAP Platform. All of our product candidates are still in varying stages of preclinical and clinical development. Our research programs may fail to identify additional product candidates for clinical development for a number of reasons. Our RAP Platform may be unsuccessful in identifying additional potential product candidates and our potential product candidates may be shown to have harmful side effects. In addition, our product candidates may be successful in upregulating the expression of their target genes and may nonetheless fail to show promising signals of therapeutic effect in such experiments or studies or they may have other characteristics that may make the product candidates impractical to manufacture, unmarketable or unlikely to receive marketing approval. Further, because all of our product candidates and programs are based on our RAP Platform, adverse developments with respect to one of our product candidates and programs may have a significant adverse impact on the actual or perceived likelihood of success and value of our other product candidates and programs.

In addition, we have not completed a clinical trial of any product candidate or successfully developed any product candidates, and our ability to identify and develop additional product candidates may never materialize. The process by which we identify and develop product candidates may fail to yield additional product candidates for clinical development for a number of reasons, including those discussed in these risk factors. In addition:

- we may not be able to assemble sufficient resources to acquire or discover product candidates;
- competitors may develop alternatives that render our product candidates obsolete or less attractive;
- product candidates we develop may nevertheless be covered by third parties' patents or other intellectual property rights;
- product candidates may, on further study, be shown to have harmful side effects, toxicities or other characteristics that indicate that they are unlikely to be products that will receive marketing approval and achieve market acceptance;
- product candidates may not achieve the optimal levels of gene upregulation or, notwithstanding such upregulation, may not be effective in achieving a meaningful clinical result in their targeted diseases or disorders;
- the market for a product candidate may change so that the continued development of that product candidate is no longer reasonable;
- a product candidate may not be capable of being produced in commercial quantities at an acceptable cost, or at all; or
- the regulatory pathway for a product candidate may be too complex and difficult to navigate successfully or economically.

If we are unable to identify and discover suitable product candidates for clinical development, this would adversely impact our business strategy and our financial position and share price and could potentially cause us to cease operations.

Drug development is a lengthy and expensive process, and preclinical and clinical testing is uncertain as to the outcome. We may encounter substantial delays in the commencement, enrollment or completion of our clinical trials, or we may fail to demonstrate safety and effectiveness to the satisfaction of applicable regulatory authorities, which could prevent us from advancing or commercializing our product candidates on a timely basis, if at all.

The risk of failure in developing therapeutic product candidates is high. This elevated risk exists even when preclinical studies in animal models demonstrate positive data. It is impossible to predict when or if any product candidate would prove effective or safe in humans or will receive regulatory approval. Before obtaining marketing approval from regulatory authorities for the sale of any product candidate, we must complete preclinical development, obtain regulatory authorization to commence clinical trials, and then conduct extensive clinical trials to demonstrate the safety and efficacy of product candidates in humans.

Clinical trials may fail to demonstrate that our product candidates are safe for humans and effective for indicated uses, and earlier results, both preclinical and clinical, may not be indicative of future clinical trial results. Even if the clinical trials are successful, changes in marketing approval policies during the development period, changes in or the enactment or promulgation of additional statutes, regulations or guidance, varying interpretations of clinical data or changes in regulatory review for each submitted product application may cause delays in the approval or rejection of an application.

Before we can commence clinical trials for a product candidate, we must complete extensive preclinical testing and studies that support clearance of our regulatory filings, including IND applications to the FDA in the U.S. and other similar regulatory filings in other jurisdictions, including with respect to the TGA in Australia and the national competent authorities, or NCAs, in the European Union. We cannot be certain if the outcome of our preclinical studies and clinical trials will ultimately support further development of our product candidates or future programs or whether the FDA, TGA, NCAs or comparable foreign regulatory authorities will accept our proposed clinical programs or whether the outcome of our preclinical testing and studies will ultimately support the further development of our product candidates. Conducting preclinical testing is a lengthy, time-consuming and expensive process. The length of time may vary substantially according to the type, complexity and novelty of the program, and often can be several years or more per program. As a result, we cannot be sure that we will be able to submit INDs, CTAs and other similar regulatory filings for our preclinical programs on the timelines we expect, if at all, and we cannot be sure that submission of such regulatory filings will result in the FDA, TGA, NCAs or comparable foreign regulatory authorities allowing clinical trials to begin.

Clinical testing is expensive, is difficult to design and implement, can take many years to complete and is uncertain as to outcome. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, or at all. A failure of one or more clinical trials can occur at any stage of testing, which may result from a multitude of factors, including, but not limited to, flaws in trial design, dose selection issues, patient enrollment criteria, operational challenges, site implementation challenges, biostatistical plans, and failure to demonstrate favorable safety or efficacy traits.

Other events that may prevent successful or timely completion of clinical development include:

- delays in reaching a consensus with regulatory authorities on trial design;
- delays in reaching agreement on acceptable terms with prospective clinical research organizations, or CROs, and clinical trial sites;
- delays in opening clinical trial sites or obtaining required approval from institutional review boards, or IRBs, HRECs or independent ethics committees, or the equivalent review groups for sites outside the U.S. or Australia, at each clinical trial site;
- imposition of a clinical hold by regulatory authorities as a result of a serious adverse event or manufacturing concerns or after an inspection of our clinical trial operations or trial sites;
- negative or inconclusive results observed in clinical trials, including failure to demonstrate statistical significance, which could lead us, or cause regulators to require us, to conduct additional clinical trials or abandon product development programs;

- failure by us, any CROs we engage or any other third parties to adhere to clinical trial requirements;
- failure to perform in accordance with the FDA's GCPs, Good Manufacturing Practices, or GMP, regulations or those of other regulatory authorities, including, but not limited to, Australia's GMP requirements;
- failure by physicians to adhere to delivery protocols, leading to protocol deviations and variable results;
- inappropriate storage or failure of storage facilities or storage equipment of preclinical or clinical trial samples;
- delays in the testing, validation, manufacturing and delivery of our product candidates to the clinical sites, including delays by third parties with whom we have contracted to perform certain of those functions;
- failure of our third-party contractors to comply with regulatory requirements or to meet their contractual obligations to us in a timely manner, or at all;
- inability to recruit patients to participate in a clinical trial, including as a result of competition with other pharmaceutical and biotechnology companies and the patient population size for our product candidates;
- delays in having patients complete participation in a clinical trial or return for post-treatment follow-up;
- clinical trial sites or patients dropping out of a trial;
- selection of clinical endpoints that require prolonged periods of clinical observation or analysis of the resulting data, or clinical endpoints that have broad variability or inconsistency, resulting in negative or indeterminable results;
- occurrence of serious adverse events associated with a product candidate in development by another company, which are viewed to outweigh its potential benefits, and which may negatively impact the perception of our current or future product candidates due to a similarity in technology or approach;
- changes in regulatory requirements and guidance that require amending or submitting new clinical protocols;
- changes in the legal or regulatory regimes domestically or internationally related to patient rights and privacy;
- lack of adequate funding to continue the clinical trial; or
- lack of diminished revenue potential of the programs due to competition.

Clinical trials must be conducted in accordance with the legal requirements, regulations or guidelines of the FDA, TGA, EC, NCAs and other applicable regulatory authorities, and are subject to oversight by these governmental agencies and IRBs, HRECs or ethics committees at the medical institutions where the clinical trials are conducted. We could encounter delays if a clinical trial is suspended or terminated by us, by the data safety monitoring board for such trial or by the FDA, TGA, EMA or any other regulatory authority, or if the IRBs or HRECs of the institutions in which such trials are being conducted suspend or terminate the participation of their clinical investigators and sites subject to their review. Such authorities may 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, TGA, EMA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a product candidate, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

In addition, we may face challenges associated with clinical testing in pediatric populations, which we currently intend to pursue with respect to CMP-CPS-001, and which could increase our clinical development timelines and operational costs, delay regulatory approval and commercialization for such pediatric indications or expose us to additional liability. For example, finding qualified clinical sites that have access to sufficient pediatric populations and that are willing to participate in our clinical trials may take more time than would be required for the assessment of CMP-CPS-001 in adult patient populations. There may be fewer eligible pediatric patients with the

UCD enzyme deficiencies we are targeting for the development of CMP-CPS-001, or with conditions applicable to other product candidates we may develop and assess in future clinical trials. We may also be required to modify the formulation or other aspects of our product candidate, as compared to the comparable product candidate intended for adult patient populations, make manufacturing changes, modify the route of administration and conduct additional clinical trials, such as bridging studies and additional safety studies, before we can commence our clinical trials in pediatric populations. The FDA or other comparable regulatory authorities may require us to complete studies in adults prior to initiating testing in children. Any delays in our planned clinical development activities for pediatric patients could have an adverse effect on our business operations.

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

Any inability to successfully complete preclinical studies and clinical trials could result in additional costs to us or preclude or impair our ability to generate revenues from product sales, regulatory and commercialization milestones and royalties. In addition, if we make manufacturing or formulation changes to our product candidates, we may need to conduct additional studies to bridge our modified product candidates to earlier versions. Clinical trial delays also could shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do, which could impair our ability to successfully commercialize our product candidates and may harm our business, financial condition, results of operations and prospects.

Further, conducting clinical trials in foreign countries, such as our ongoing Phase 1 clinical trial of CMP-CPS-001 for the treatment of UCDs, which is being conducted in Australia, presents additional risks that may delay completion of our clinical trials. These risks include the failure of enrolled patients in foreign countries to adhere to clinical protocol as a result of differences in healthcare services or cultural customs, managing additional administrative burdens associated with foreign regulatory schemes, as well as political and economic risks relevant to such foreign countries.

Additionally, if the results of clinical trials are inconclusive or if there are safety concerns or serious adverse events associated with our product candidates, we may:

- be delayed in obtaining marketing approval for product candidates, if at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to changes in the way our product candidates are administered;
- be required to perform additional clinical trials to support approval or be subject to additional post-marketing testing requirements;
- have regulatory authorities withdraw, or suspend, their approval of the product or impose restrictions on its distribution in the form of a Risk Evaluation and Mitigation Strategy, or REMS;
- be subject to the addition of labeling statements, such as warnings or contraindications;
- be subject to litigation; or
- experience damage to our reputation.

Any of these events could prevent us from achieving or maintaining regulatory approval or market acceptance of our product candidates or could substantially increase commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenue from the sale of our product candidates, if approved.

Interim, topline, and preliminary data from our clinical trials and preclinical studies 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 that could result in material changes in the final data.

From time to time, we may publicly disclose interim, topline, or preliminary data from our clinical trials and preclinical studies, which is based on a preliminary analysis of then-available data, and the results and related findings and conclusions are subject to change following quality assurance, audit, and/or a more comprehensive review of the data related to the particular study or 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 interim, topline, 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. Topline and preliminary data also remain subject to audit and verification procedures that may result, in the final data being materially different from the topline or preliminary data we previously published. As a result, topline and preliminary data should be viewed with caution until the final data are available. Interim data from clinical trials that we may complete are further subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Adverse differences between interim, topline, or preliminary data and final data could significantly harm our business prospects.

In addition, others, including regulatory authorities, 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 particular product candidate and our company in general. Moreover, 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, and any information we determine not to disclose may ultimately be deemed significant with respect to future decisions, conclusions, views, activities or otherwise regarding a particular product candidate or our business. If the interim, topline, 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 our product candidates may be harmed, which could harm our business, operating results, prospects, or financial condition.

The outcome of preclinical studies and earlier-stage clinical trials may not be predictive of future results or the success of later preclinical studies and clinical trials.

We are in the early stages of development of our programs and have initiated a Phase 1 clinical trial of our lead product candidate, CMP-CPS-001, in healthy adult volunteers in Australia, but we have not yet completed or received clearance for IND- or CTA-enabling activities for our other product candidates or advanced any other product candidates into clinical development. As a result, our belief in the capabilities of our platform and potential success of our product candidates is based on early research and preclinical studies. However, the results of preclinical studies may not be predictive of the results of later preclinical studies or clinical trials, and the results of any early-stage clinical trials may not be predictive of the results of later clinical trials. In addition, initial success in clinical trials may not be indicative of results obtained when such trials are completed. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their product candidates. Our clinical trials may not ultimately be successful or support further clinical development of our product candidates.

Our choices with respect to the design and implementation of our clinical trials will be a significant factor in our ability to successfully and timely complete clinical development with respect to our product candidates. Our Phase 1 clinical trial being conducted in Australia for CMP-CPS-001 utilizes a ureagenesis rate test, or URT, which is an

assay that evaluates flux through the urea cycle based on the rate at which an isotope is converted into labeled urea. The assay can be used to measure baseline and post-treatment urea rates and was previously shown to be able to measure ureagenesis in normal healthy volunteer studies and ureagenesis increases in specific UCD patient subtypes using carglumic acid. More specifically, Carbaglu, approved for ultra-rare NAGS-deficient patients, utilized the URT in healthy volunteers and showed that minimal increases in ureagenesis translated to substantial ammonia reductions in NAGS-deficient patients. Although URTs have experienced expanded use in research and clinical studies and have been shown to correlate with responses in patients, making them a valuable pharmacodynamic tool, they are not an established clinical endpoint and not routinely used for clinical care. As such, it is possible that variability in the results of the assay could render interpretation difficult. While we believe that an increase in ureagenesis as measured by the URT in our Phase 1 clinical trial may correspond with clinically meaningful improvements in ammonia metabolism in UCD patients, there is no guarantee that an increase in ^{13}C-sodium acetate metabolism, as measured by the URT, will correlate to an increase in ammonia metabolism, or that such data will be predictive of positive results with respect to the established clinical endpoints that we expect to use in our later-stage clinical trials, and our use of the URT to measure changes in ureagenesis in our Phase 1 clinical trial should not be interpreted as evidence of the efficacy of CMP-CPS-001.

There is a high failure rate for product candidates proceeding through clinical trials. A number of companies in the pharmaceutical and biotechnology industries have suffered significant setbacks in clinical development even after achieving encouraging results in earlier studies. Any such setbacks in our clinical development could materially harm our business and results of operations.

Additionally, some or all of our planned clinical trials may utilize an “open-label” 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 typically, 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 with any of our product candidates when studied in a controlled environment with a placebo or active control.

Additionally, some of our planned clinical trials may utilize a “placebo” and/or blinded clinical trial design. A placebo controlled clinical trial is one where both the participant and the investigator may and/or should not know whether the participants have received the product candidate or placebo. In studies utilizing placebo and/or blinded control, there exists the phenomenon of “placebo response” where participants assigned to the placebo may experience a benefit given their participation in the study. This placebo response in the control group at times may limit or prevent the detection of a numerical and/or a statistical difference between the treatment group and the placebo group.

Certain of the disorders we seek to treat, including UCDs and SYNGAP1-related disorders, have low prevalence and it may be difficult to identify and enroll patients with these disorders. If we experience delays or difficulties in the enrollment and/or maintenance of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

Identifying and qualifying patients to participate in clinical trials of any of our current or future product candidates is critical to our success. Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors, including the size and nature of the patient population and competition for patients with other trials. Genetic diseases generally, and especially the rare diseases for which some of our current and any future product candidates are targeted, have low incidence and prevalence. For example, the incidence of UCDs in the U.S. is estimated to be approximately 1 in 35,000 births, with similar incidence estimated for Europe, and accordingly it may be difficult for us to identify and timely recruit a sufficient number of eligible patients to conduct our

clinical trials. Further, the pediatric population is an important patient population for CMP-CPS-001 and our addressable patient population estimates include pediatric populations. However, it may be more challenging to conduct studies in this population, and to locate and enroll pediatric patients. Additionally, it may be challenging to ensure that pediatric or adolescent patients adhere to clinical trial protocols. We may not be able to identify, recruit and enroll a sufficient number of patients, or those with required or desired characteristics, to complete our clinical trials in a timely manner. Patient enrollment and trial completion is affected by factors including:

- size of the patient population, in particular for rare diseases, including the diseases on which we are initially focused, and the process for identifying patients and screening patients;
- design of the trial protocol;
- eligibility and exclusion criteria;
- perceived risks and benefits of the product candidate under study;
- availability of competing therapies and clinical trials;
- severity of the disease or disorder under investigation;
- proximity and availability of clinical trial sites for prospective patients;
- ability to obtain and maintain patient consent;
- risk that enrolled patients will drop out before completion of the trial;
- patient referral practices of physicians; and
- ability to monitor patients adequately during and after treatment.

Our inability to enroll a sufficient number of patients for clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in these clinical trials may result in increased development costs for our product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing. Furthermore, we rely on and expect to continue to rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and we will have limited influence over their performance.

Furthermore, certain of our planned clinical trials may utilize a “placebo” and/or blinded clinical trial design, which may in some situations cause additional enrollment difficulty. In clinical trials of patients, patients may decline to enroll out of concern of being assigned into the placebo group. This concern may be higher in rare diseases and may increase if other treatments become available to patients during the clinical trial or clinical development.

Even if we are able to enroll a sufficient number of patients for our clinical trials, we may have difficulty maintaining patients in our clinical trials. For example, patients who end up receiving placebo may perceive that they are not receiving the product candidate being tested, and they may decide to withdraw from our clinical trials to pursue other alternative therapies rather than continue the trial with the perception that they are receiving placebo. If we have difficulty enrolling or maintaining a sufficient number of patients to conduct our clinical trials, we may need to delay, limit or terminate clinical trials, any of which would harm our business, financial condition, results of operations and prospects.

If any of our current or any future product candidates cause undesirable side effects or have other unexpected adverse properties, such side effects or properties could delay or prevent regulatory approval, limit the commercial potential or result in significant negative consequences following any potential marketing approval.

We have not completed a clinical trial of any product candidate. It is impossible to predict when or if any of our current or future product candidates will prove safe in humans. There can be no assurance that our product candidates will not cause undesirable side effects.

Although other ASOs have received regulatory approval, no regulatory authorities to date have approved ASOs that are directed towards the type of RNA (regulatory RNAs) that our product candidates target. As a result, there is uncertainty as to the safety profile of any of our current or future product candidates compared to currently approved ASOs.

If any product candidates we develop are associated with serious adverse events, undesirable side effects or unexpected characteristics, we may need to abandon their development or limit development to certain uses or subpopulations in which the serious adverse events, undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective, any of which would have a material adverse effect on our business, financial condition, results of operations and prospects. Many product candidates that initially showed promise in early-stage testing have later been found to cause side effects that prevented further clinical development of the product candidates.

If in the future we are unable to demonstrate that such side effects were caused by factors other than our product candidates, the FDA, the TGA, EC, NCAs or other regulatory authorities could order us to cease further development of, or deny approval of, any product candidates for any or all targeted indications. Even if we are able to demonstrate that any future serious adverse events are not product-related and regulatory authorities do not order us to cease further development of our product candidates, such occurrences could affect patient recruitment or the ability of enrolled patients to complete the trial. Moreover, if we elect, or are required, to delay, suspend or terminate any clinical trial of any product candidate, the commercial prospects of such product candidates may be harmed and our ability to generate product revenues from any of these product candidates may be delayed or eliminated. Any of these occurrences may harm our ability to develop other product candidates, and may harm our business, financial condition and prospects significantly.

We may develop certain of our future product candidates in combination with other therapies, which exposes us to additional risks.

We may develop certain of our future product candidates for use in combination with one or more currently approved therapies. Even if any product candidate we develop was to receive marketing approval or be commercialized for use in combination with other existing therapies, we would continue to be subject to the risks that the FDA or similar foreign regulatory authorities could revoke approval of the therapy used in combination with our product candidate or that safety, efficacy, manufacturing or supply issues could arise with these existing therapies. This could result in our own products being less successful commercially.

If the FDA or similar foreign regulatory authorities do not approve these other drugs or revoke their approval of, or if safety, efficacy, manufacturing, or supply issues arise with, the drugs we choose to evaluate in combination with any product candidate we develop, we may be unable to obtain approval of or market such product candidate.

We may expend our limited resources to pursue a particular program, product candidate or indication and fail to capitalize on programs, product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

Because we have limited financial and managerial resources, we focus on research programs and product candidates that we identify for specific indications that we believe can be addressed by our technology among many potential options. As a result, we may forego or delay pursuit of opportunities with other product candidates or for other indications that later prove to have greater commercial potential, or we may choose to focus our efforts and resources on a potential product candidate that ultimately proves to be unsuccessful. Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable products. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other royalty arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to such product

candidate. Any such event could have a material adverse effect on our business, financial condition, results of operations and prospects.

We are conducting and intend to conduct certain of our clinical trials globally. However, the FDA and other foreign equivalents may not accept data from such trials, in which case our development plans will be delayed, which could materially harm our business.

We intend to continue conducting certain of our clinical trials globally. The acceptance by the FDA or other regulatory authorities of study data from clinical trials conducted outside their jurisdiction 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 sole basis for marketing approval in the U.S., the FDA will generally not approve the application on the basis of foreign data alone unless (i) the data are applicable to the U.S. population and U.S. medical practice; (ii) the trials were performed by clinical investigators of recognized competence and pursuant to GCP regulations; and (iii) the data may be considered valid without the need for an on-site inspection by the FDA, or if the FDA considers such inspection to be necessary, the FDA is able to validate the data through an on-site inspection or other appropriate means.

In addition, even where the foreign study data are not intended to serve as the sole basis for approval, the FDA will not accept the data as support for an application for marketing approval unless the clinical trial is well-designed and well-conducted in accordance with GCP requirements and the FDA is able to validate the data from the trial through an onsite inspection if deemed necessary. Many foreign regulatory authorities have similar approval requirements. In addition, such foreign trials would be 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 U.S. 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 current or any future product candidates that we may develop not receiving approval for commercialization in the applicable jurisdiction.

Conducting clinical trials outside the U.S. also exposes us to additional risks, including risks associated with additional foreign regulatory requirements; foreign exchange fluctuations; compliance with foreign manufacturing, customs, shipment and storage requirements; cultural differences in medical practice and clinical research; diminished protection of intellectual property in some countries; and interruptions or delays in our trials resulting from geopolitical events, such as war or terrorism.

Changes in the methods of manufacturing or formulation of our product candidates may result in additional costs or delay.

As our product candidates progress through clinical trials to regulatory approval and commercialization, it is common that various aspects of the development program, such as manufacturing methods and formulation, may be altered along the way in an effort to optimize safety, efficacy, yield, and manufacturing batch size, minimize costs, and achieve consistent quality and results. There can be no assurance that any future manufacturing or formulation changes will achieve their intended objectives. These changes and any future changes we may make to our product candidates may also cause such candidates to perform differently and affect the results of future clinical trials conducted with the altered materials. Such changes or related unfavorable clinical trial results could delay initiation or completion of additional clinical trials, require the conduct of bridging studies or clinical trials or the repetition of one or more studies or clinical trials, increase development costs, delay or prevent potential regulatory approval, and jeopardize our ability to commercialize our product candidates, if approved, and generate revenue.

If the market opportunities for any product candidates we develop are smaller than we believe they are, our revenue may be adversely affected, and our business may suffer. Because the target patient populations of certain of our programs are small, and the addressable patient population even smaller, we must be able to successfully identify patients and capture a significant market share to achieve profitability and growth.

Certain of our research and product development initiatives are focused on treatments for rare diseases. Given the small number of patients who have the diseases that we are initially targeting, including UCDs and SYNGAP1-related disorders, it is critical to our ability to grow and become profitable that we continue to successfully

identify patients with these rare diseases. Our projections of both the number of people who have these diseases, as well as the subset of people with these diseases who have the potential to benefit from treatment with any product candidates we may develop, are based on our beliefs and estimates. These estimates have been derived from a variety of sources, including the scientific literature, surveys of clinics, patient foundations or market research that we conducted, and may prove to be incorrect or contain errors. New studies may change the estimated incidence or prevalence of these diseases. The number of patients may turn out to be lower than expected. The effort to identify patients with diseases we seek to treat is in early stages, and we cannot accurately predict the number of patients for whom treatment might be possible. Additionally, the potentially addressable patient population for each of our product candidates may be limited or may not be amenable to treatment with our product candidates, and new patients may become increasingly difficult to identify or gain access to, which would adversely affect our results of operations and our business. Further, even if we obtain significant market share for our product candidates, because the potential target populations are very small, we may never achieve profitability despite obtaining such significant market share.

Risks related to regulatory approval and commercialization

Even if we complete the necessary preclinical studies and clinical trials, the marketing approval process is expensive, time-consuming and uncertain and may prevent us from obtaining approvals for the commercialization of any product candidates we may develop. If we are not able to obtain, or if there are delays in obtaining, required regulatory approvals, we will not be able to commercialize, or will be delayed in commercializing, product candidates we may develop, and our ability to generate revenue will be materially impaired.

Any product candidates we may develop and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, potential confirmatory studies, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory authorities in the U.S. and by comparable authorities in other countries, including the TGA in Australia, the EC and the NCAs in the European Union, and by the Medicines and Healthcare products Regulatory Agency, or MHRA, in the United Kingdom. Failure to obtain marketing approval for a product candidate we may develop 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. We have no experience as a company in filing and supporting the applications necessary to gain marketing approvals and expect to utilize or rely on third-party experts, CROs, and other competent groups and/or individuals 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 may 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 our obtaining marketing approval or prevent or limit commercial use.

The process of obtaining marketing approvals, both in the U.S. and abroad, is expensive, may take many years if additional clinical trials are required, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Of the large number of product candidates in development, only a small percentage successfully complete the FDA or foreign regulatory approval processes and are commercialized. Even if any product candidates we may develop demonstrate safety and efficacy in clinical trials, the regulatory agencies may not complete their review processes in a timely manner, or we may not be able to obtain regulatory approval. Additional delays may result if an FDA Advisory Committee or other regulatory authority recommends non-approval or restrictions on approval. 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 substantial discretion in the approval process and may refuse to accept any application or may decide that our data is

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

Further, under the Pediatric Research Equity Act, or the PREA, a new drug application, or NDA, or supplement to an NDA for certain drugs must contain data to assess the safety and effectiveness of the drug in all relevant pediatric subpopulations and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective, unless the sponsor receives a deferral or waiver from the FDA. A deferral may be granted for several reasons, including a finding that the product or therapeutic candidate is ready for approval for use in adults before pediatric trials are complete or that additional safety or effectiveness data needs to be collected before the pediatric trials begin. The applicable legislation in the EU also requires sponsors to either conduct clinical trials in a pediatric population in accordance with a Pediatric Investigation Plan approved by the Pediatric Committee of the EMA, or to obtain a waiver or deferral from the conduct of these studies by the Pediatric Committee of the EMA. For any of our product candidates for which we seek regulatory approval in the U.S. or the EU, we cannot guarantee that we will be able to obtain a waiver or alternatively complete any required studies and other requirements in a timely manner, or at all, which could result in associated reputational harm and subject us to enforcement action.

Even if we eventually complete clinical testing and receive approval of an NDA or foreign marketing application for any product candidates, the FDA or the applicable foreign regulatory agency may grant approval or other marketing authorization contingent on the performance of costly additional clinical trials, including post-market clinical trials. The FDA or the applicable foreign regulatory agency also may approve or authorize for marketing a product candidate for a more limited indication or patient population that we originally request, and the FDA or applicable foreign regulatory agency may not approve or authorize the labeling that we believe is necessary or desirable for the successful commercialization of a product candidate. Any of these restrictions or commitments could render an approved product not commercially viable, which would materially adversely impact our business and prospects.

We may attempt to seek approval from the FDA or comparable foreign regulatory authorities, where applicable, under the accelerated approval pathways. We may fail to obtain approval under such accelerated approval pathways. Moreover, these pathways may not lead to a faster development, regulatory review or approval process and do not increase the likelihood that our product candidates will receive marketing approval.

We may in the future seek accelerated approval, where applicable, under the FDA's accelerated approval pathway. A product candidate may be eligible for accelerated approval if it treats a serious or life-threatening condition, generally provides a meaningful advantage over available therapies, and demonstrates an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, or IMM, that is reasonably likely to predict an effect on IMM or other clinical benefit. As a condition of accelerated approval, the FDA likely would require that we perform adequate and well-controlled post-marketing clinical trials to confirm the product's clinical benefit. These confirmatory trials must be completed with due diligence. Under Food and Drug Omnibus Reform Act of 2022, or FDOR, 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 accelerated approval was granted. FDORA also requires sponsors to send updates to the FDA every 180 days on the status of such studies, including progress toward enrollment targets, and the FDA must promptly post this information publicly. FDORA also gives the FDA increased authority to withdraw approval of a drug granted accelerated approval on an expedited basis if the sponsor fails to conduct such studies in a timely manner, send the necessary updates to the FDA, or if such post-approval studies fail to verify the drug's predicted clinical benefit. Under FDORA, the FDA is empowered to take action, such as issuing fines, against companies that fail to conduct with due diligence any post-approval confirmatory study or submit timely reports to the agency on their progress. Even if we seek to utilize the accelerated approval pathway, we may not be able to obtain accelerated approval and, even if we do, we may not

experience a faster development, regulatory review or approval process for that product. In addition, receiving accelerated approval does not ensure that the product's accelerated approval will eventually be converted to a full approval.

In the EU, under the centralized procedure, the EMA's Committee for Medicinal Products for Human Use may perform an accelerated assessment of a marketing authorization application. Applicants requesting an accelerated assessment procedure must justify that the product candidate is expected to be of major public health interest, particularly from the point of view of therapeutic innovation. Prior to seeking accelerated approval for any of our product candidates, we intend to seek feedback from the FDA or similar foreign regulatory authorities and will otherwise evaluate our ability to seek and receive accelerated approval. There can be no assurance that after our evaluation of the feedback and other factors we will decide to pursue or submit an NDA or similar application for accelerated approval or any other form of expedited development or review. Similarly, there can be no assurance that after subsequent FDA or similar foreign regulatory authorities feedback we will continue to pursue or apply for accelerated approval or any other form of expedited development or review, even if we initially decide to do so. Furthermore, if we decide to submit an application for accelerated approval or other expedited development or review for our product candidates, there can be no assurance that such submission or application will be accepted or that any expedited development or review will be granted on a timely basis, or at all. The FDA 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. A failure to obtain accelerated approval or any other form of expedited development or review for our product candidate would result in a longer time period to commercialization of such product candidate, if any, could increase the cost of development of such product candidate, and could harm our competitive position in the marketplace.

We may seek one or more designations or expedited programs for one or more of our product candidates, but we might not receive such designations or be allowed to proceed on expedited program pathways, and even if we do and proceed on such expedited program pathways in the future, such designations or expedited programs may not lead to a faster development or regulatory review or approval process, and each designation does not increase the likelihood that any of our product candidates will receive marketing approval in the U.S.

We may seek fast track designation for certain of our product candidates. If a drug is intended for the treatment of a serious or life-threatening condition and nonclinical or clinical data for the drug demonstrates the potential to address an unmet medical need for such a condition, the drug 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 for any of our other product candidates. Even with fast track designation, we may not experience a faster development process, review or approval compared to conventional FDA procedures. The FDA may withdraw fast track designation if it believes that the designation is no longer supported by data from our clinical development program. Fast track designation alone does not guarantee qualification for the FDA's priority review procedures.

We may seek a breakthrough therapy designation for some of our product candidates. A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For product candidates 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. Product candidates designated as breakthrough therapies by the FDA may also be eligible for priority review and accelerated approval. Designation as a breakthrough therapy is within the discretion of the FDA. Accordingly, even if we believe one of our product candidates 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 a breakthrough therapy designation for a product candidate may not result in a faster development process, review or approval compared to therapies considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our

product candidates qualify as breakthrough therapies, the FDA may later decide that such product candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

If the FDA determines that a product candidate offers a treatment for a serious condition and, if approved, the product would provide a significant improvement in safety or effectiveness, the FDA may designate the product candidate for priority review. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of ten months. We may request priority review for our product candidates. The FDA has broad discretion with respect to whether or not to grant priority review status to a product candidate, so even if we believe a particular product candidate is eligible for such designation or status, the FDA may decide not to grant it. Moreover, a priority review designation does not necessarily result in an expedited regulatory review or approval process or necessarily confer any advantage with respect to approval compared to conventional FDA procedures. Receiving priority review from the FDA does not guarantee approval within the six-month review cycle or at all.

We have received orphan drug designation for CMP-CPS-001 for the treatment of UCDs, and we may pursue orphan drug designation for certain of our other product candidates. We may not be able to obtain or maintain the benefits of orphan drug designation, including potential orphan drug exclusivity, and even if we do, that exclusivity may not prevent regulatory authorities from approving other competing products.

The FDA granted orphan drug designation to CMP-CPS-001 for the treatment of UCDs in September 2024; however, we may not be able to obtain or maintain the benefits of such designation, including potential orphan drug exclusivity. Additionally, we may seek orphan drug designation for certain of our other product candidates in the future; however, we may never receive such designations. Under the Orphan Drug Act, the FDA may designate a product candidate as an orphan drug if it is a drug intended to treat a rare disease or condition, defined as a patient population of fewer than 200,000 in the U.S., or a patient population greater than 200,000 in the U.S. where there is no reasonable expectation that the cost of developing the drug will be recovered from sales in the U.S. Orphan drug designation must be requested before submitting an NDA. A similar regulatory scheme governs orphan products in the EU and the United Kingdom based on, among others, prevalence of the disease or condition of less than 5 in 10,000.

Orphan drug designation entitles a party to financial incentives such as opportunities for grant funding towards clinical trial costs, tax advantages and application fee waivers. After the FDA grants orphan drug designation, the generic identity of the product candidate and its potential orphan use are disclosed publicly by the FDA. In addition, if a product candidate with an orphan drug designation subsequently receives the first marketing approval for the indication for which it has such designation, the product is entitled to a period of marketing exclusivity, which precludes the FDA from approving another marketing application for the same product for the same therapeutic indication for seven years.

Even if we obtain orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different products can be approved for the same condition. In addition, even after an orphan drug is approved, the FDA can subsequently approve the same product for the same condition if the FDA concludes that the later product is clinically superior in that it is shown to be safer, more effective or makes a major contribution to patient care. Orphan drug exclusivity may also be lost if the FDA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the product to meet the needs of the patients with the rare disease or condition. Further, even if we obtain orphan drug designation, we may not be the first to obtain marketing approval for any particular orphan indication due to the uncertainties associated with developing pharmaceutical products.

The decision of the U.S. Court of Appeals for the 11th Circuit in Catalyst Pharms., Inc. v. Becerra, 14 F.4th 1299 (11th Cir. 2021) has created uncertainty regarding the scope of orphan drug exclusivity. Although the FDA subsequently announced that it intends to continue to apply its longstanding interpretation of the regulations to matters outside of the scope of the Catalyst order and continue tying the scope of orphan-drug exclusivity to the uses or indications for which a drug is approved, it is unclear how future litigation, legislation, agency decisions,

and administrative actions will impact the scope of the orphan drug exclusivity. The FDA may further reevaluate the Orphan Drug Act and its regulations and policies. We do not know if, when, or how the FDA may change the orphan drug regulations and policies in the future, and it is uncertain how any changes might affect our business. Depending on what changes the FDA may make to its orphan drug regulations and policies, our business could be adversely impacted.

We have received rare pediatric disease designation from the FDA for CMP-CPS-001 for the treatment of UCDs; however, there is no guarantee that a marketing application for CMP-CPS-001, if approved, will qualify for a rare pediatric disease priority review voucher.

Under the Rare Pediatric Disease Priority Review Voucher, or PRV, program, a sponsor of an NDA that receives approval for a drug for a "rare pediatric disease" may qualify for a rare pediatric disease PRV that can be redeemed to obtain priority review for a subsequent application. Under the current statutory sunset provisions, a rare pediatric disease product application may be eligible for a rare pediatric disease PRV if the drug receives rare pediatric disease designation before September 30, 2024 and receives marketing approval before September 30, 2026. While we have obtained rare pediatric disease designation for CMP-CPS-001 for the treatment of UCDs, it is unlikely that this product candidate will be approved before September 30, 2026. If approval is not obtained by then, we will not be eligible for a rare pediatric disease PRV, unless Congress further reauthorizes the program beyond the current sunset date. Additionally, designation of a drug for a rare pediatric disease does not guarantee that an NDA for such product candidate will meet the criteria for a "rare pediatric disease priority product application" or be eligible for a rare pediatric disease PRV at the time the application is approved. The FDA may determine that a marketing application does not meet the eligibility criteria for a rare pediatric disease PRV for a number of reasons, including:

- the rare pediatric disease that received such designation no longer meets the definition of a "rare pediatric disease";
- the marketing application contains an active ingredient (including any ester or salt of the active ingredient) that has been previously approved in a marketing application;
- the marketing application is not deemed eligible for priority review;
- the marketing application does not rely on clinical data derived from studies examining a pediatric population and dosages of the product intended for that population (that is, if the marketing application does not contain sufficient clinical data to allow for adequate labeling for use by the full range of affected pediatric patients); or
- the marketing application is approved for a different adult indication than the rare pediatric disease for which our product candidates are designated.

Rare pediatric disease designation does not lead to faster development or regulatory review of the product or increase the likelihood that will receive marketing approval.

Obtaining and maintaining marketing approval or commercialization of our product candidates in the U.S. does not mean that we will be successful in obtaining marketing approval of our product candidates in other jurisdictions. Failure to obtain marketing approval in foreign jurisdictions would prevent any product candidates we may develop from being marketed in such jurisdictions, which, in turn, would materially impair our ability to generate revenue.

In order to market and sell any product candidates we may develop in the European Union and many other foreign jurisdictions, we or our collaborators must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The regulatory approval process outside the U.S. generally includes all of the risks associated with obtaining FDA approval. In addition, in many countries outside the U.S., it is required that the product candidate be approved for reimbursement before the product can be approved for sale in that country. We or these third parties may not obtain approvals from regulatory authorities outside the U.S. on a timely basis, if at all. Approval by the FDA

does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the U.S. does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may not be able to file for marketing approvals and may not receive necessary approvals to commercialize our product candidates in any jurisdiction, which would materially impair our ability to generate revenue.

In addition, foreign regulatory authorities may change their approval policies and new regulations may be enacted. For instance, the EU pharmaceutical legislation is currently undergoing a complete revision, in the context of the Pharmaceutical Strategy for Europe initiative, launched by the European Commission in November 2020. The European Commission's proposals for revision of several fundamental legislative instruments related to medicinal products, which may reduce the duration of regulatory data protection and revise the eligibility for expedited pathways in addition to other changes, was published on April 26, 2023. The proposed revisions are yet be finalized by the European Parliament and European Council through the co-decision legislative process and the proposals may therefore be substantially revised before adoption, which is not anticipated before early 2026. On April 10, 2024, the European Parliament adopted its position on the Commission proposal to reform. The revisions will however have a significant impact on the pharmaceutical industry and our business in the long term.

Any delay in obtaining, or an inability to obtain, any marketing approvals would prevent us from commercializing any product candidates in the United Kingdom and/or the European Union and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom and/or the European Union for any product candidates we may develop, which could significantly and materially harm our business.

Even if we obtain regulatory approval for any of our product candidates, we will still face extensive and ongoing regulatory requirements and obligations, which may result in significant additional expense.

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

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

If we fail to comply with applicable regulatory requirements following approval of any product candidates we may develop, a regulatory agency may:

- issue a warning letter asserting that we are in violation of the law;

- seek an injunction or impose civil or criminal penalties or monetary fines;
- suspend or withdraw regulatory approval;
- suspend any ongoing clinical trials;
- refuse to approve a pending NDA or supplements to an NDA submitted by us;
- seize product; or
- refuse to allow us to enter into supply contracts, including government contracts.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize any product candidates we may develop and generate revenues.

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

- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on the distribution or use of a product;
- requirements to conduct post-marketing clinical trials;
- receipt of warning or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- fines, restitution or disgorgement of profits or revenue;
- suspension or withdrawal of marketing approvals;
- suspension of any ongoing clinical trials;
- refusal to permit the import or export of our products;
- product seizure; and
- injunctions or the imposition of civil or criminal penalties.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response and could generate negative publicity. The occurrence of any event or penalty described above may inhibit our ability to commercialize any product candidates we develop and adversely affect our business, financial condition, results of operations and prospects.

The U.S. Supreme Court's June 2024 decision in *Loper Bright Enterprises v. Raimondo* overturned the longstanding *Chevron* doctrine, under which courts were required to give deference to regulatory agencies' reasonable interpretations of ambiguous federal statutes. The *Loper* decision could result in additional legal challenges to regulations and guidance issued by federal agencies, including the FDA, on which we rely. Any such legal challenges, if successful, could have a material impact on our business. Additionally, the *Loper* decision may result in increased regulatory uncertainty, inconsistent judicial interpretations, and other impacts to the agency rulemaking process, any of which could adversely impact our business and operations. We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action or as a result of legal challenges, either in the United States or abroad. 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, our business could be materially harmed.

Even if any product candidate that we may develop receives marketing approval, it 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.

If any product candidate we may develop receives marketing approval, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, third-party payors and others in the medical community. Sales of medical products depend in part on the willingness of physicians to prescribe the treatment, which is likely to be based on a determination by these physicians that the products are safe, therapeutically effective and cost-effective. In addition, the inclusion or exclusion of products from treatment guidelines established by various physician groups and the viewpoints of influential physicians can affect the willingness of other physicians to prescribe the treatment. We cannot predict whether physicians, physicians' organizations, hospitals, other healthcare providers, government agencies or private insurers will determine that our product is safe, therapeutically effective and cost-effective as compared with competing treatments. Efforts to educate the medical community and third-party payors on the benefits of any product candidates we may develop may require significant resources and may not be successful. If any product candidates we may develop do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable. The degree of market acceptance of any product candidates we may develop, if approved for commercial sale, will depend on a number of factors, including:

- the efficacy and safety of such product candidates as demonstrated in clinical trials;
- the potential advantages and limitations compared to alternative treatments;
- the effectiveness of sales and marketing efforts;
- the cost of treatment in relation to alternative treatments;
- the clinical indications for which the product is approved;
- the convenience and ease of administration compared to alternative treatments;
- the willingness of the target patient population to try new therapies and of physicians to prescribe these therapies;
- the strength of marketing and distribution support;
- the timing of market introduction of competitive products;
- the availability of third-party coverage and adequate reimbursement;
- the prevalence and severity of any side effects; and
- any restrictions on the use of our products, if approved, together with other medications.

The pricing, insurance coverage and reimbursement status of newly approved products is uncertain. Failure to obtain or maintain adequate coverage and reimbursement for our product candidates, if approved, could limit our ability to market those products and decrease our ability to generate product revenue.

Certain of the initial target indications in our pipeline are indications with small patient populations. For product candidates that are designed to treat smaller patient populations to be commercially viable, the reimbursement for such product candidates must be higher, on a relative basis, to account for the lack of volume. Accordingly, we will need to implement a coverage and reimbursement strategy for any approved product candidate that accounts for the smaller potential market size. If we are unable to establish or sustain coverage and adequate reimbursement for any approved product candidates from third-party payors, the adoption of those product candidates and sales revenue will be adversely affected, which, in turn, could adversely affect the ability to market or sell those product candidates, if approved.

We expect that coverage and reimbursement by third-party payors will be essential for most patients to be able to afford these treatments. Accordingly, any future sales of our product candidates, if approved, will depend substantially, both domestically and internationally, on the extent to which the costs of such product candidates

will be paid by health maintenance, managed care, pharmacy benefit and similar healthcare management organizations, or will be reimbursed by government authorities, private health coverage insurers and other third-party payors. 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.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. In the U.S., the principal decisions about reimbursement by government authorities for new products are typically made by the Centers for Medicare & Medicaid Services, or CMS, since CMS decides whether and to what extent a new product will be covered and reimbursed under Medicare. Private payors tend to follow CMS to a substantial degree. However, one payer's determination to provide coverage for a product does not assure that other payors will also provide coverage for the drug product. Further, a payer's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. Reimbursement agencies in the European Union may be more conservative than CMS.

Outside the U.S., international operations are generally subject to extensive governmental price controls and other market regulations, and we believe the increasing emphasis on cost-containment initiatives in Europe, Canada and other countries has and will continue to put pressure on the pricing and usage of therapeutics such as any product candidates we may develop. In many countries, particularly the countries of the European Union, the prices of medical products are subject to varying price control mechanisms as part of national health systems. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. As a result, we might obtain marketing approval for a product in a particular country, but then be subject to price regulations that delay or might even prevent our commercial launch of the product, possibly for lengthy periods of time. To obtain reimbursement or pricing approval in some countries, we may be required to conduct a clinical trial that compares the cost-effectiveness of our product candidate to other available therapies. In general, the prices of products under such systems are substantially lower than in the U.S. Other countries allow companies to fix their own prices for products but monitor and control company profits. Additional foreign price controls or other changes in pricing regulation could restrict the amount that we are able to charge for product candidates. Accordingly, in markets outside the U.S., the reimbursement for any product candidates we may develop may be reduced compared with the U.S. and may be insufficient to generate commercially reasonable revenues and profits.

Moreover, increasing efforts by governmental and third-party payors, in the U.S. and internationally, to cap or reduce healthcare costs may cause such organizations to limit both coverage and level of reimbursement for new products approved and, as a result, they may not cover or provide adequate payment for any product candidates we may develop. We expect to experience pricing pressures in connection with the sale of any product candidates we may develop due to the trend toward managed healthcare, the increasing influence of certain third-party payors, such as health maintenance organizations, and additional legislative changes. The downward pressure on healthcare costs in general, particularly prescription drugs and surgical procedures and other treatments, has become very intense. As a result, increasingly high barriers are being erected to the entry of new products into the healthcare market. There have been instances in which third-party payors have refused to reimburse treatments for patients for whom the treatment is indicated in the FDA-approved product label. Even if we are successful in obtaining FDA approvals to commercialize our product candidates, we cannot guarantee that we will be able to secure reimbursement for all patients for whom treatment with our product candidates is indicated.

In addition to CMS and private payors, professional organizations, such as the American Medical Association, can influence decisions about reimbursement for new products by determining standards for care. In addition, many private payors contract with commercial vendors who sell software that provide guidelines that attempt to limit utilization of, and therefore reimbursement for, certain products deemed to provide limited benefit to existing alternatives. Such organizations may set guidelines that limit reimbursement or utilization of our product candidates. Even if favorable coverage and reimbursement status is attained for one or more product candidates for which we or our collaborators receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

If we are unable to establish sales, marketing and distribution capabilities or enter into sales, marketing and distribution agreements with third parties, we may not be successful in commercializing any product candidates we may develop if and when they are approved.

We do not have a sales or marketing infrastructure and have no experience in the sale, marketing or distribution of pharmaceutical products. To achieve commercial success for any product for which we have obtained marketing approval, we will need to establish a sales, marketing and distribution organization, either ourselves or through collaborations or other arrangements with third parties.

In the future, we may build a sales and marketing infrastructure to market some of the product candidates we may develop if and when they are approved. There are risks involved with establishing our own sales, marketing and distribution capabilities. For example, recruiting and training a sales force is expensive and time-consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. These efforts may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our products on our own include:

- our inability to recruit, train and retain adequate numbers of effective sales, marketing, coverage or reimbursement, customer service, medical affairs and other support personnel;
- the inability of sales personnel to educate adequate numbers of physicians on the benefits of such product candidates;
- the inability of reimbursement professionals to negotiate arrangements for formulary access, reimbursement and other acceptance by payors;
- the inability to price our products at a sufficient price point to ensure an adequate and attractive level of profitability;
- restricted or closed distribution channels that make it difficult to distribute our products to segments of the patient population;
- 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.

If we are unable to establish our own sales, marketing and distribution capabilities and we enter into arrangements with third parties to perform these services, our product revenues and our profitability, if any, are likely to be lower than if we were to market, sell and distribute any products that we develop ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute any product candidates we may develop or may be unable to do so on terms that are acceptable to us. We likely will have little control over such third parties, and any of them may fail to devote the necessary resources and attention to sell and market our products effectively. If we do not establish sales, marketing and distribution capabilities successfully, either on our own or in collaboration with third parties, we will not be successful in commercializing any product candidates we may develop.

Our relationships with healthcare providers, physicians, patients and third-party payors may be subject to various anti-kickback, fraud and abuse, other healthcare laws and regulations, which could increase compliance costs, and our failure to comply with these laws and regulations could harm our reputation, subject us to significant fines and liability, or otherwise adversely affect our business.

Our business operations and current and future arrangements with investigators, healthcare professionals, consultants, third-party payors, patient organizations, and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations. These laws may constrain the business or financial arrangements and relationships through which we conduct our operations, including how we research, market, sell, and distribute any products for which we obtain regulatory approval. Such laws include:

- the federal Anti-Kickback Statute, or AKS, which prohibits, among other things, persons or entities from knowingly and willfully soliciting, offering, receiving, or providing any remuneration (including any kickback, bribe, or certain rebates), directly or indirectly, overtly or covertly, in cash or in kind, in return for, either the referral of an individual or the purchase, lease, or order, or arranging for or recommending the purchase, lease, or order 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 Medicare and Medicaid. A person or entity does not need to have actual knowledge of the federal AKS or specific intent to violate it in order to have committed a violation;
- the federal false claims laws, including the civil False Claims Act, or FCA, and civil monetary penalties laws, which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, to the federal government, claims for payment or approval that are false or fraudulent, knowingly making, using or causing to be made or used, a false record or statement material to a false or fraudulent claim, or from knowingly making or causing to be made a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. In addition, the government may assert that a claim including items or services resulting from a violation of the federal AKS constitutes a false or fraudulent claim for purposes of the civil FCA. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to "cause" the submission of false or fraudulent claims; the FCA also permits a private individual acting as whistleblower to bring actions on behalf of the federal government alleging violations of the FCA and to share in any monetary recovery;
- the Civil Monetary Penalties Law, which covers a variety of conduct, often violations under other laws, and includes penalties for violating the AKS violations, causing the submission of false claims, and offering or transfer of remuneration to a Medicare or state healthcare program beneficiary if the person knows or should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state healthcare program;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 and their implementing regulations, which imposes criminal and civil liability for, among other things, knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, or knowingly and willfully falsifying, concealing, or covering up a material fact or making any materially false statement, in connection with the delivery of, or payment for, healthcare benefits, items, or services. Similar to the federal AKS, a person or entity does not need to have actual knowledge of the statute or specific intent to violate it in order to have committed a violation. HIPAA also imposes obligations related to the privacy, security, and transmission of individually identifiable health information that apply to many healthcare providers, physicians, and third-party payors with whom we interact;
- federal consumer protection and unfair competition laws broadly regulate marketplace activities and activities that potentially harm consumers;
- federal government price reporting laws, which require pharmaceutical manufacturers to report certain calculated product prices to the government or provide certain discounts or rebates to government authorities or private entities, often as a condition of reimbursement under governmental healthcare programs;
- the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program (with certain exceptions) to report annually to CMS, information related to payments and other "transfers of value" made to "physicians" (which has the same meaning as under Section 1861(r) of the Social Security Act, which generally includes doctors of medicine, osteopathy, dentists, podiatrists, optometrists and chiropractors who are legally authorized to practice by a state), certain non-physician practitioners (physician assistants, nurse practitioners, clinical nurse specialists, certified nurse anesthetists, anesthesiology assistants, and certified nurse-midwives), and teaching hospitals and other healthcare providers, as well as ownership and investment interests held by such healthcare professionals and their immediate family members; and

- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, which may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers; some state laws require biopharmaceutical companies to comply with the biopharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require drug manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures; some state laws that require biopharmaceutical companies to report information on the pricing of certain drug products; and some state and local laws that require the registration of pharmaceutical sales representatives.

Healthcare providers, physicians and third-party payors in the U.S. 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, which may constrain the business or financial arrangements and relationships through which such companies sell, market and distribute pharmaceutical products. In particular, the promotion, sales and marketing of healthcare items and services, as well as a wide range of pricing, discounting, marketing and promotion, structuring and commissions, certain customer incentive programs and other business arrangements, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commissions, support programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical trials.

Efforts to ensure that our current and future business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial ongoing costs. It is possible that governmental authorities will conclude that our business practices, including certain consulting agreements and advisor agreements we have entered into with physicians who are paid, in part, in the form of stock or stock options, may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. Due to the breadth of these laws, the narrowness of statutory exceptions and regulatory safe harbors available, and the range of interpretations to which they are subject, it is possible that some of our current or future practices might be challenged under one or more of these laws. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant penalties, including civil, criminal, and administrative penalties, damages, fines, disgorgement, imprisonment, exclusion from participation in government-funded healthcare programs, such as Medicare and Medicaid, integrity oversight and reporting obligations, contractual damages, reputational harm, diminished profits and future earnings, and the curtailment or restructuring of our operations. 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. Further, if any of the physicians or other healthcare providers or entities with whom we expect to do business are found be non-compliant with applicable laws or regulations, they may be subject to significant criminal, civil, or administrative sanctions, including exclusions from government-funded healthcare programs.

Current and future healthcare reform legislation or regulation may increase the difficulty and cost for us to obtain coverage for and commercialize our product candidates and may adversely affect the prices we may set.

In the U.S. and some foreign jurisdictions, there have been, and we expect there will continue to be, a number of legislative and regulatory changes to the healthcare system, including cost-containment measures that may reduce or limit coverage and reimbursement for newly approved drugs and biologics and affect our ability to profitably sell any product candidates for which we obtain regulatory approval. In particular, there have been and continue to be a number of initiatives at the U.S. federal and state levels that seek to reduce healthcare costs and improve the quality of healthcare.

For example, the Patient Protection and Affordable Care Act and Health Care and Education Reconciliation Act, or the Affordable Care Act, which became law in the U.S. in 2010, contains provisions will become more salient to

our business if any of our product candidates are approved. The Affordable Care Act established an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents; established provisions that subject biological products to potential competition by lower-cost biosimilars; extended manufacturers' Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations; expanded eligibility criteria for Medicaid programs; expanded the entities eligible for discounts under the 340B drug pricing program; increased the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program; established a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research; expanded federal healthcare fraud and abuse laws, including the False Claims Act and the Anti-Kickback Statue, new government investigative powers and enhanced penalties for noncompliance; and established a Center for Medicare & Medicaid Innovation at CMS to test innovative payment and service delivery models to lower Medicare and Medicaid spending. We may face uncertainties because of efforts to repeal, substantially modify or invalidate some or all of the provisions of the Affordable Care Act. There is no assurance that the Affordable Care Act, as currently enacted or as amended in the future, will not adversely affect our business and financial results, and we cannot predict how future federal or state legislative or administrative changes relating to healthcare reform will affect our business.

In addition, other legislative changes have been proposed and adopted since the Affordable Care Act was enacted. For example, beginning April 1, 2013, Medicare payments to providers were reduced under the sequestration required by the Budget Control Act of 2011, which will remain in effect through 2032, unless additional Congressional action is taken. Additionally, on January 2, 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several providers, including hospitals, imaging centers, and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. On March 11, 2021, the American Rescue Plan Act of 2021 was signed into law, which eliminates the statutory cap on Medicaid drug rebates beginning January 1, 2024. The rebate was previously capped at 100% of a drug's average manufacturer price. Additionally, the Inflation Reduction Act of 2022 includes several provisions such as drug pricing controls and Medicare redesign that are likely to impact our business to varying degrees, but its ultimate effect on our business and the healthcare industry in general is not yet known. See "Healthcare laws and regulation in the United States—Healthcare reform" section.

Further, there has been heightened governmental scrutiny in the U.S. of pharmaceutical pricing practices in light of the rising cost of prescription drugs. Such scrutiny has resulted in several recent congressional inquiries and proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing, review the relationship between pricing and manufacturer patient assistance programs, and reform government program reimbursement methodologies for products. There is also significant economic pressure on state budgets that may result in states increasingly seeking to achieve budget savings through mechanisms that limit coverage or payment for drugs or that would allow for importation of pharmaceutical products from lower cost jurisdictions outside the U.S. State Medicaid programs are increasingly requesting manufacturers to pay supplemental rebates and requiring prior authorization by the state program for use of any drug for which supplemental rebates are not being paid. Government efforts to reduce Medicaid expenses may lead to increased use of managed care organizations by Medicaid programs. This may result in managed care organizations influencing prescription decisions for a larger segment of the population and a corresponding limitation on prices and reimbursement for our products, if approved.

These healthcare reforms, as well as other healthcare reform measures that may be adopted in the future, may result in additional reductions in Medicare and other healthcare funding, more rigorous coverage criteria, new payment methodologies and additional downward pressure on the price that we receive for any approved product and/or the level of reimbursement physicians receive for administering any approved product we might bring to market. Reductions in reimbursement levels may negatively impact the prices we receive or the frequency with which our potential products are prescribed or administered. Any reduction in reimbursement from Medicare or other government programs may result in a similar reduction in payments from private payors.

We are subject to stringent privacy laws, information security laws, regulations, policies and contractual obligations related to data privacy and security and changes in such laws, regulations, policies, and contractual obligations and failure to comply with such requirements could subject us to significant fines and penalties, which may have a material adverse effect on our business, financial condition, results of operations or prospects.

We are subject to data privacy and protection laws, regulations, policies and contractual obligations that apply to the collection, transmission, storage and use of personally-identifying information, which among other things, impose certain requirements relating to the privacy, security and transmission of personal information, including comprehensive regulatory systems in the U.S., European Union and United Kingdom. The legislative and regulatory landscape for privacy and data protection continues to evolve in jurisdictions worldwide, and there has been an increasing focus on privacy and data protection issues with the potential to affect our business. More than a dozen states in the U.S. have passed comprehensive data protection legislation, and the global regulatory environment pertaining to information security and privacy is increasingly demanding, with new and changing requirements, such as the European Union's General Data Protection Regulation, The Personal Information Protection Law of the People's Republic of China and Brazil's Lei Geral de Protecao de Dados. Complying with these laws and regulations may be more costly or take longer than we anticipate, and any failure to comply with any of these laws and regulations could result in enforcement action against us, including fines, claims for damages by affected individuals, damage to our reputation and loss of goodwill, any of which could have a material adverse effect on our business, financial condition, results of operations or prospects.

There are numerous U.S. federal and state laws and regulations related to the privacy and security of personal information. In particular, regulations promulgated pursuant to HIPAA establish privacy and security standards that limit the use and disclosure of individually identifiable health information, or protected health information, and impose requirements regarding the privacy and security of individually identifiable health information, including mandatory contractual terms, for covered entities, or certain healthcare providers, health plans, and healthcare clearinghouses, and their business associates that provide services to the covered entity that involve individually identifiable health information and their subcontractors that use, disclose, or otherwise process individually identifiable health information. While pharmaceutical and biotechnology companies are typically not directly regulated by HIPAA, our business may be indirectly impacted by HIPAA in our interactions with providers, payors, and others that have HIPAA compliance obligations. If we are unable to properly protect the privacy and security of protected health information, we could be found to have violated these privacy and security laws and/or breached certain contracts. Further, if we fail to comply with applicable privacy laws, including applicable HIPAA privacy and security standards, we could face significant civil and criminal penalties. HHS enforcement activity can result in financial liability and reputational harm, and responses to such enforcement activity can consume significant internal resources. In addition, state attorneys general are authorized to bring civil actions seeking either injunctions or damages in response to violations that threaten the privacy of state residents. We cannot be sure how these regulations will be interpreted, enforced or applied to our operations. In addition to the risks associated with enforcement activities and potential contractual liabilities, our ongoing efforts to comply with evolving laws and regulations at the federal and state level may be costly and require ongoing modifications to our policies, procedures and systems.

In addition to potential enforcement by HHS, we are also potentially subject to privacy enforcement from the Federal Trade Commission, or the FTC. The FTC has been particularly focused on the unpermitted processing of health and genetic data through its recent enforcement actions and is expanding the types of privacy violations that it interprets to be "unfair" under Section 5 of the Federal Trade Commission Act, as well as the types of activities it views to trigger the Health Breach Notification Rule, which the FTC also has the authority to enforce. The FTC is also in the process of developing rules related to commercial surveillance and data security that may impact our business. We will need to account for the FTC's evolving rules and guidance for proper privacy and data security practices in order to mitigate our risk for a potential enforcement action, which may be costly. If we are subject to a potential FTC enforcement action, we may be subject to a settlement order that requires us to adhere to very specific privacy and data security practices, which may impact our business. We may also be required to pay fines as part of a settlement, depending on the nature of the alleged violations. If we violate any consent order that we reach with the FTC, we may be subject to additional fines and compliance requirements.

As we conduct clinical trials in Australia and may in the future conduct clinical trials or seek to commercialize our products outside of the U.S., we will also be subject to a variety of foreign data protection laws and regulations. For our clinical trials in Australia, to the extent that the sites for our trials include certain university, company or government agencies, we may be subject to restrictions and data protection obligations under the Privacy Act 1988 (Cth). We may, otherwise, be subject to additional data protection laws in Australia in the states and territories in which we conduct our trials, which have similar restrictions on our ability to collect, analyze and transfer medical records and other patient data. These laws may impact our business. Our failure to comply with these privacy laws and regulations or significant changes in the laws and regulations restricting our ability to obtain required patient information could significantly impact our business and our future business plans.

Laws and regulations governing any international operations we may have in the future may preclude us from developing, manufacturing and selling certain product candidates outside of the U.S. and require us to develop and implement costly compliance programs.

We are subject to numerous laws and regulations in each jurisdiction outside the U.S. in which we operate. The creation, implementation and maintenance of international business practices compliance programs is costly and such programs are difficult to enforce, particularly where reliance on third parties is required.

The Foreign Corrupt Practices Act, or the FCPA, prohibits any U.S. individual or business from paying, offering, or authorizing the provision of money or anything of value, directly or indirectly through parties, to any foreign official, official of a public international organization, or political party official or candidate for the purpose of influencing any act or decision of the foreign entity in order to assist the individual or business in obtaining or retaining business. The FCPA also obligates companies whose securities are listed in the U.S. to comply with certain accounting provisions requiring the company to maintain books and records that accurately and fairly reflect all transactions of the corporation, including international subsidiaries, and to devise and maintain an adequate system of internal accounting controls for international operations. The anti-bribery provisions of the FCPA are enforced primarily by the Department of Justice. The SEC is involved with enforcement of the books and records provisions of the FCPA.

Compliance with the FCPA and other anti-corruption laws potentially applicable to our business is expensive and difficult, particularly in countries in which corruption is a recognized problem. In addition, compliance with the FCPA and other anti-corruption laws presents particular challenges in the pharmaceutical industry, because, in many countries, hospitals are operated by the government, and doctors and other hospital employees are considered foreign officials.

Various U.S. export and sanctions laws, regulations and executive orders also restrict the use and dissemination outside of the U.S., or the sharing with certain non-U.S. nationals, of certain products and technical data relating to those products. Furthermore, such export and sanctions laws include restrictions or prohibitions on the sale or supply of certain products and services to U.S. embargoed countries or sanctioned countries, governments, persons and entities. Our expansion outside of the U.S. has required, and will continue to require, us to dedicate additional resources to comply with these laws, and these laws may preclude us from developing, manufacturing or selling certain drugs and drug candidates outside of the U.S., which could limit our growth potential and increase our development costs. The failure to comply with laws governing international business practices may result in substantial penalties, including suspension or debarment from government contracting. Violation of the FCPA and export and sanctions laws can result in significant civil and criminal penalties, imprisonment, the loss of export or import privileges, debarment, breach of contract and fraud litigation, reputational harm, and other consequences. Indictment alone under the FCPA can lead to suspension of the right to do business with the U.S. government until the pending claims are resolved. Conviction of a violation of the FCPA can result in long-term disqualification as a government contractor. The termination of a government contract or relationship as a result of our failure to satisfy any of our obligations under laws governing international business practices would have a negative impact on our operations and harm our reputation and ability to procure government contracts. The SEC also may suspend or bar issuers from trading securities on U.S. exchanges for violations of the FCPA's accounting provisions.

Inadequate funding for the FDA, the Securities and Exchange Commission, or the SEC, and other government agencies, including from government shut downs, or other disruptions to these agencies' operations, 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 and comparable foreign regulatory authorities to review and approve or certify 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. Disruptions at the FDA, other agencies and authorities may also slow the time necessary for new product candidates to be reviewed and/or approved, which would adversely affect our business. In addition, government funding of the SEC and other government agencies 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 agencies, and authorities may also slow the time necessary for new product candidates to be reviewed and/or approved by necessary government agencies, foreign regulatory authorities, 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 and the SEC, have had to furlough critical employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business. 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.

Risks related to reliance on third parties

We rely, and intend to continue to rely, on third parties to perform some of our preclinical studies and conduct our clinical trials. If these third parties do not successfully carry out their contractual duties, fail to comply with applicable regulatory requirements, or do not meet expected deadlines, our development programs may be delayed or subject to increased costs or we may be unable to obtain regulatory approval for or commercialize our product candidates.

We are dependent on third parties to perform some of our preclinical studies and to conduct our ongoing and planned clinical trials. Specifically, we rely on, and intend to continue to rely on, medical institutions, clinical investigators, CROs, consultants and other third parties to perform some of our preclinical studies and conduct our clinical trials and the subsequent collection and analysis of data. These third parties play a significant role in the conduct and timing of our research, preclinical studies and clinical trials. While we have and will have agreements governing the committed activities of these third parties, we have limited influence over their actual performance. Nevertheless, we are responsible for ensuring that each of our clinical trials is conducted in accordance with the applicable protocol and legal, regulatory, and scientific standards and requirements, and our reliance on third parties does not relieve us of our regulatory responsibilities. In addition, we and these third parties are required to comply with GLP requirements for certain preclinical studies, as well as GCP requirements, which are regulations and guidelines enforced by the FDA and comparable foreign regulatory authorities for clinical trials of all of our product candidates. Regulatory authorities enforce these GCP requirements through periodic inspections of trial sponsors, principal investigators, and trial sites. If we or any of these third parties fail to comply with applicable GLP or GCP or other requirements, the clinical data generated in our preclinical studies or clinical trials may be deemed unreliable, and the FDA, TGA or comparable foreign regulatory authorities may require us to perform additional preclinical studies or clinical trials before approving our marketing applications, if ever. Further, our clinical trials must be conducted with product produced in accordance with current GMP regulations. Failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process.

There is no guarantee that any such CROs, clinical investigators or other third parties on which we rely will devote adequate time and resources to our development activities or perform as contractually required. If any of

these third parties fail to meet expected deadlines, adhere to our clinical protocols, or meet regulatory requirements, or otherwise perform in a substandard manner or terminate their engagements with us, the timelines for our development programs may be extended, delayed or subject to increased costs, or our clinical trials may be extended, delayed, or terminated. In addition, many of these third parties may also have relationships with other entities, including our competitors, for whom they may also be conducting clinical trials or other development activities that could harm our competitive position. If these third parties do not successfully carry out their contractual duties or obligations or meet expected deadlines, if they need to be replaced or if the quality or accuracy of the preclinical or clinical data they obtain is compromised due to the failure to adhere to our protocols or regulatory requirements or for other reasons, our development timelines, including clinical development timelines, may be extended, delayed or terminated and we may not be able to complete development of, obtain regulatory approval of or successfully commercialize our product candidates. As a result, our financial results and the commercial prospects for our product candidates would be harmed, our costs could increase and our ability to generate revenue could be delayed or precluded entirely.

If any of our relationships with these third parties terminate, we may not be able to enter into arrangements with alternative third parties on commercially reasonable terms, in a timely manner or at all. Switching or adding additional CROs, clinical investigators, and other third parties involves additional cost and requires our management's time and focus. In addition, there is a natural transition period when a new CRO or other third party commences work. As a result, delays occur, which can materially impact our ability to meet our desired clinical development timelines. Though we endeavor to carefully manage our relationships with our CROs, clinical investigators and other third parties, there can be no assurance that we will not encounter challenges or delays in the future or that these delays or challenges will not have a material adverse impact on our business, financial condition, and prospects.

We currently depend on third-party suppliers for the manufacture of our product candidates. The loss of these or future third-party suppliers, or their inability to provide us with sufficient supply, could harm our business.

We do not own or operate manufacturing facilities and have no current plans to develop our own clinical or commercial-scale manufacturing capabilities. We rely on third-party suppliers for the manufacture of our product candidates. We expect to continue to depend on third-party suppliers for the manufacture of any product candidates that we evaluate in preclinical studies and clinical trials, as well as for commercial manufacture if those product candidates receive marketing approval. The facilities used by third-party manufacturers to manufacture our product candidates must be approved by the FDA and any comparable foreign regulatory authority pursuant to inspections that will be conducted after we submit an NDA to the FDA or any comparable filing to a foreign regulatory authority. We have limited control over the manufacturing process of, and are completely dependent on, third-party manufacturers or Contract Manufacturing Organizations, or CMOs, for compliance with GMP requirements for manufacture of products. If these third-party manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or any comparable foreign regulatory authority, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities.

In addition, we have limited control over the ability of third-party manufacturers to maintain adequate quality control, quality assurance and qualified personnel. If the FDA or any comparable foreign regulatory authority does not approve these facilities for the manufacture of any product candidates we may develop 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 any product candidates we may develop, if approved. Our failure or the failure of our third-party manufacturers to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays in approval or other delays, suspension or withdrawal of approvals, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our product candidates.

In addition, certain of the raw materials for our product candidates are currently provided by two Chinese companies, Hongene Biotech and WuXi TIDES, a subsidiary of WuXi AppTec, and we expect to rely on these suppliers

for the foreseeable future on an as-needed basis. Certain Chinese biotechnology companies and CMOs, including these suppliers, may become subject to trade restrictions, sanctions, and other regulatory requirements by the U.S. government, which could restrict or even prohibit our ability to work with such entities, thereby potentially disrupting the supply of material to us. In January 2024, the U.S. House of Representatives introduced the BIOSECURE Act (H.R. 7085), which was subsequently amended on May 15, 2024, and the Senate advanced a substantially similar bill (S.3558), both of which would prohibit U.S. federal executive agencies from contracting with any entity where the biotechnology equipment or services of a "biotechnology company of concern" would be used in the performance of that contract. Generally speaking, a "biotechnology company of concern" is a biotechnology company that is headquartered in or subject to the jurisdiction of a foreign adversary's government and poses a threat to national security. Both the House and Senate's version of the bills name WuXi Apptec, MGI, BGI, and Complete Genomics as biotechnology companies of concern, and authorize the U.S. government to include additional Chinese biotechnology companies of concern. The new House bill also names WuXi Biologics. The current House version of the BIOSECURE Act provides a grandfathering provision with respect to a contract or agreement entered into with a designated "biotechnology company of concern" before the effective date until January 1, 2032. The pathway and timing for the BIOSECURE Act or its provisions to become law are uncertain, although the bill was passed in the House on September 9, 2024. However, should the BIOSECURE Act or its provisions become law with the currently proposed grandfathering provisions, we expect such grandfathering provisions will allow adequate time for us to identify alternative manufacturers, if necessary. To the extent any of our counterparties, or any of their subsidiaries or affiliates, is identified as a "biotechnology company of concern," our ability to purchase services or products from, or otherwise work with, such counterparty could be restricted or even prohibited. In addition to the BIOSECURE Act, any additional executive action, legislative action or potential sanctions applicable to our current and any future suppliers could materially impact our relationship with such suppliers. U.S. executive agencies have the ability to designate entities and individuals on various governmental prohibited and restricted parties lists. Depending on the designation, potential consequences can range from a comprehensive prohibition on all transactions or dealings with designated parties, or a limited prohibition on certain types of activities, such as exports and financing activities, with designated parties. If any current or future supplier is designated on any U.S. government prohibited party lists, such designation could impact and potentially restrict our engagement with such suppliers. Such disruption could have adverse effects on the development of our product candidates and our business operations.

Any failure by a third-party manufacturer to execute on our manufacturing requirements on commercially reasonable terms and in compliance with GMP could adversely affect our business in a number of ways, including:

- an inability to initiate preclinical studies or clinical trials of product candidates;
- delays in submitting regulatory applications, or receiving marketing approvals, for product candidates;
- subjecting third-party manufacturing facilities or our manufacturing facilities to additional inspections by regulatory authorities;
- requirements to cease development or to recall batches of product candidates; and
- in the event of approval to market and commercialize any product, an inability to meet commercial demands for the product.

We are party to manufacturing agreements with a number of third-party manufacturers. We may be unable to maintain these agreements or establish any additional agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to maintain or establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including:

- failure of third-party manufacturers to comply with regulatory requirements and maintain quality assurance;
- breach of the manufacturing agreement by the third party;
- failure to manufacture according to our specifications;

- failure to manufacture according to our schedule or at all;
- misappropriation of our proprietary information, including our trade secrets and know-how; and
- termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

We may compete with third parties for access to manufacturing facilities. There are a limited number of manufacturers that operate under GMP regulations and that might be capable of manufacturing for us.

We do not currently have arrangements in place for redundant supply or a second source for all required raw materials. If our existing or future third-party manufacturers cannot perform as agreed, we may be required to replace such manufacturers and we may be unable to replace them on a timely basis or at all. Additionally, if supply from one approved manufacturer is interrupted, there could be a significant disruption in supply. The regulatory agencies may also require additional studies or trials if a new manufacturer is relied upon for commercial production. Switching manufacturers may involve substantial costs and is likely to result in a delay in our desired clinical and commercial timelines.

These factors could cause the delay of clinical trials, regulatory submissions, required approvals or commercialization of our product candidates, cause us to incur higher costs and prevent us from commercializing our products successfully. Furthermore, if our suppliers fail to meet contractual requirements, and we are unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, our clinical trials may be delayed or we could lose potential revenue.

Our current and anticipated future dependence upon third parties for the manufacture of any product candidates we develop may adversely affect our development programs and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

Our reliance on third parties requires us to share our trade secrets, which increases the possibility that a competitor or other third party will discover our trade secrets or that our trade secrets will be misappropriated or disclosed.

Because we currently rely on certain third parties to manufacture all or part of our preclinical and clinical drug supply and to perform quality testing, and because we collaborate with various third parties for the advancement of our platform and pipeline, we must, at times, share our proprietary technology and confidential information, including trade secrets, with them. We seek to protect our proprietary technology, in part, by entering into confidentiality agreements and, if applicable, material transfer agreements, collaborative research agreements, consulting agreements and other similar agreements with our collaborators, advisors, employees, consultants, and other third parties prior to beginning research or disclosing any proprietary information. These agreements typically limit the rights of the third parties to use or disclose our confidential information. Despite the contractual provisions employed when working with third parties, the need to share trade secrets and other confidential information increases the risk that such trade secrets become known by our competitors or other third parties, are inadvertently incorporated into the technology of others or are disclosed or used in violation of these agreements. Despite our efforts to protect our trade secrets, our competitors may discover our trade secrets, either through breach of these agreements, independent development or publication of information including our trade secrets by third parties. Given that our proprietary position is based, in part, on our know-how and trade secrets, a competitor's or other third party's discovery of our proprietary technology and confidential information or other unauthorized use or disclosure would impair our competitive position and may harm our business, financial condition, results of operations and prospects.

We may enter into collaborations with third parties for the research, development and commercialization of certain of the product candidates we may develop. If any such collaborations are not successful, we may not be able to capitalize on the market potential of those product candidates.

We may seek third-party collaborators for the research, development and commercialization of certain of the product candidates we may develop. If we enter into any such arrangements with any third parties, we will likely

have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of any product candidates we may seek to develop with them. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements. We cannot predict the success of any collaboration that we enter into.

Collaborations involving our research programs or any product candidates we may develop pose numerous risks to us, including the following:

- collaborators would have significant discretion in determining the efforts and resources that they will apply to these collaborations;
- collaborators may not pursue development and commercialization of any product candidates we may develop or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the collaborator's strategic focus or available funding or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators may delay programs, preclinical studies or clinical trials, provide insufficient funding for programs, preclinical studies or clinical trials, stop a preclinical study or clinical trial or abandon a product candidate, 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 any product candidates we may develop if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;
- collaborators may be acquired by a third party having competitive products or different priorities, causing the emphasis on our product development or commercialization program under such collaboration to be delayed, diminished or terminated;
- collaborators 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;
- collaborators may not properly obtain, maintain, enforce or defend our intellectual property or proprietary rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation;
- disputes may arise between the collaborators and us that result in the delay or termination of the research, development, or commercialization of any product candidates we may develop or that result in costly litigation or arbitration that diverts management attention and resources;
- we may lose certain valuable rights under certain circumstances, including if we undergo a change of control;
- 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 candidates we may develop; and
- collaboration agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all.

If any collaborations into which we may enter do not result in the successful development and commercialization of product candidates, or if any future collaborator terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under the collaboration. If we do not receive the funding we expect under these agreements, our development of product candidates could be delayed, and we may need additional resources to develop product candidates. In addition, if a future collaborator terminates its agreement with us, we may find it more difficult to find a suitable replacement collaborator or attract new collaborators, and our development programs may be delayed or the perception of us in the business and financial communities

could be adversely affected. All of the risks relating to product development described in this "Risk factors" section apply to the activities of our collaborators.

These relationships, or those like them, may require us to incur non-recurring and other charges, increase our near- and long-term expenditures, issue securities that dilute our existing stockholders, or disrupt our management and business. If we license rights to any product candidates we or our collaborators may develop, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture.

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

Our research programs and product candidates and the potential commercialization of any product candidates we may develop will require substantial additional cash to fund expenses. For some of the product candidates we may develop, we plan to seek collaborations with pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates.

We face significant competition in seeking high-quality collaborators, and the negotiation process is time-consuming and complex. 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 design or results of preclinical studies and clinical trials, the likelihood of approval by the FDA, TGA, EC, NCAs or similar regulatory authorities outside the U.S., the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than one with our company.

Collaborations are complex and time-consuming to negotiate and document. 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 the product candidate 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, reduce the scope of any sales or marketing activities, or increase our own expenditures on the development of the product candidate.

We are dependent on third-party vendors to provide certain licenses, products and services and our business and operations, including clinical trials, could be disrupted by any problems with our significant third-party vendors.

We engage a number of third-party suppliers and service providers to supply critical goods and services, such as contract research services, contract manufacturing services and IT services. Disruptions to the business, financial stability or operations of these suppliers and service providers, including due to strikes, labor disputes or other disruptions to the workforce or to their willingness and ability to produce or deliver such goods or provide such services in a manner that satisfies the requirements put forth by the authorities, or in a manner that satisfies our own requirements, could affect our ability to develop and market our product candidates on a timely basis. If these suppliers and service providers were unable or unwilling to continue to provide their goods or services in the manner expected, or at all, we could encounter difficulty finding alternative suppliers. Even if we are able to secure appropriate alternative suppliers in a timely manner, costs for such goods or services could increase significantly. Any of these events could adversely affect our results of operations and our business.

If we or third parties, including our CROs or contract manufacturers, use hazardous and biological materials in a manner that causes injury or violates applicable law, we may be liable for damages.

Our research and development activities may involve the controlled use of potentially hazardous substances, including chemical and biological materials, by us or third parties such as our CROs and contract manufacturers.

We and such third parties are subject to federal, state and local laws and regulations in the U.S. governing the use, manufacture, storage, handling and disposal of medical and hazardous materials. Although we believe that our and such third parties' procedures for using, handling, storing and disposing of these materials comply with legally prescribed standards, we cannot completely eliminate the risk of contamination or injury resulting from medical or hazardous materials. As a result of any such contamination or injury, we may incur liability or local, city, state or federal authorities may curtail the use of these materials and interrupt our business operations. In the event of an accident, we could be held liable for damages or penalized with fines, and the liability could exceed our resources. Compliance with applicable environmental laws and regulations is expensive, and current or future environmental regulations may impair our research, development and production efforts, which could harm our business, prospects, financial condition or results of operations.

Risks related to our intellectual property

Our rights to develop and commercialize our product candidates are subject, in part, to the terms and conditions of licenses granted to us by third parties. If we fail to comply with our obligations under these arrangements or otherwise experience disruptions to our business relationships with our current or any future licensors, we could lose such intellectual property rights that are important to our business.

We are and expect to continue to be reliant upon third-party licensors for certain patent and other intellectual property rights that are important or necessary to the development of our technology and product candidates. For example, we rely on a license from the Whitehead Institute for Biomedical Research. Our current agreement with the Whitehead Institute for Biomedical Research imposes, and we expect that any future license agreements will also impose, specified diligence, milestone payment, royalty, commercialization, development and other obligations on us and require us to meet development timelines, or to exercise diligent or commercially reasonable efforts to develop and commercialize licensed products, in order to maintain the licenses. See "Business collaboration and license agreements—Whitehead Institute patent license agreement."

Furthermore, our licensors have, or may in the future have, the right to terminate a license if we materially breach the agreement and fail to cure such breach within a specified period or in the event we undergo certain bankruptcy events. In spite of our best efforts, our current or any future licensors might conclude that we have materially breached our license agreements and might therefore terminate the license agreements. If our license agreements are terminated, we may lose our rights to develop and commercialize our product candidates and technology, lose patent protection, experience significant delays in the development and commercialization of our product candidates and technology, and incur liability for damages. If these in-licenses are terminated, or if the underlying intellectual property fails to provide the intended exclusivity, our competitors or other third parties could have the freedom to seek regulatory approval of, and to market, products and technologies identical or competitive to ours and we may be required to cease our development and commercialization of certain of our product candidates and technology. In addition, we may seek to obtain additional licenses from our licensors and, in connection with obtaining such licenses, we may agree to amend our existing licenses in a manner that may be more favorable to the licensors, including by agreeing to terms that could enable third parties, including our competitors, to receive licenses to a portion of the intellectual property that is subject to our existing licenses and to compete with any product candidates we may develop and our technology. Any of the foregoing could have a material adverse effect on our competitive position, business, financial condition, results of operations and prospects. Disputes may arise regarding intellectual property subject to a licensing agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- our or our licensors' ability to obtain, maintain and defend intellectual property and to enforce intellectual property rights against third parties;
- the extent to which our technology, product candidates and processes infringe, misappropriate or otherwise violate the intellectual property of the licensor that is not subject to the license agreement;
- the sublicensing of patent and other intellectual property rights under our license agreements;

- our diligence, development, regulatory, commercialization, financial or other obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our current or future licensors and us and our partners; and
- the priority of invention of patented technology.

In addition, future license agreements are likely to be, complex, and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our diligence, development, regulatory, commercialization, financial or other obligations under the relevant agreement. In addition, if disputes over intellectual property that we have licensed or any other dispute related to our license agreements prevent or impair our ability to maintain our current license agreements on commercially acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates and technology. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

License agreements we may enter into in the future may be non-exclusive. Accordingly, third parties may also obtain non-exclusive licenses from such licensors with respect to the intellectual property licensed to us under such license agreements. For example, our license agreement with the Whitehead Institute for Biomedical Research grants certain co-exclusive rights to a third-party to certain patent rights generally relating to, among other things, methods of modulating gene expression by targeting certain genomic sequences. Accordingly, these license agreements may not provide us with exclusive rights to use such licensed patent and other intellectual property rights, or may not provide us with exclusive rights to use such patent and other intellectual property rights in all relevant fields of use and in all territories in which we may wish to develop or commercialize our technology and any product candidates we may develop in the future.

Moreover, some of our in-licensed patent and other intellectual property rights may in the future be subject to third party interests such as co-ownership. If we are unable to obtain an exclusive license to such third-party co-owners' interest, in such patent and other intellectual property rights, such third-party co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. We or our licensors may need the cooperation of any such co-owners of our licensed patent and other intellectual property rights in order to enforce them against third parties, and such cooperation may not be provided to us or our licensors.

Additionally, we may not have complete control over the preparation, filing, prosecution, maintenance, enforcement and defense of patents and patent applications that we license from third parties. It is possible that our licensors' filing, prosecution and maintenance of the licensed patents and patent applications, enforcement of patents against infringers or defense of such patents against challenges of validity or claims of enforceability may be less vigorous than if we had conducted them ourselves, and accordingly, we cannot be certain that these patents and patent applications will be prepared, filed, prosecuted, maintained, enforced and defended in a manner consistent with the best interests of our business. If our licensors fail to file, prosecute, maintain, enforce and defend such patents and patent applications, or lose rights to those patents or patent applications, the rights we have licensed may be reduced or eliminated, our right to develop and commercialize any of our technology and any product candidates we may develop that are the subject of such licensed rights could be adversely affected and we may not be able to prevent competitors or other third parties from making, using and selling competing products.

Furthermore, our owned and in-licensed patent rights may be subject to a reservation of rights by one or more third parties. When new technologies are developed with government funding, in order to secure ownership of patent rights related to the technologies, the recipient of such funding is required to comply with certain government regulations, including timely disclosing the inventions claimed in such patent rights to the U.S. government and timely electing title to such inventions. A failure to meet these obligations may lead to a loss of

rights or the unenforceability of relevant patents or patent applications. In addition, the U.S. government may have certain rights in such patent rights, including a non-exclusive license authorizing the U.S. government to use the invention or to have others use the invention on its behalf. If the U.S. government decides to exercise these rights, it is not required to engage us as its contractor in connection with doing so. The U.S. government's rights may also permit it to disclose the funded inventions and technology, which may include our confidential information, to third parties and to exercise march-in rights to use or allow third parties to use the technology that was developed using U.S. government funding. The U.S. government may exercise its march-in rights if it determines that action is necessary because we or our licensors failed to achieve practical application of the U.S. government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such U.S. government-funded inventions may be subject to certain requirements to manufacture any product candidates we may develop embodying such inventions in the U.S. Any of the foregoing could harm our business, financial condition, results of operations and prospects significantly.

If we or our licensors are unable to obtain, maintain, enforce and adequately protect our intellectual property rights with respect to our product candidates and technology, or if the scope of any patent or other intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to successfully develop and commercialize our product candidates and technology may be adversely affected.

Our success depends in large part on our and our licensors' ability to obtain, maintain, enforce and adequately protect our intellectual property rights through patents, trade secrets, and trademarks in the U.S. and other jurisdictions with respect to our product candidates and our technology, as well as our ability to operate our business without infringing, misappropriating or otherwise violating the intellectual property rights of others.

Given the early stage of development of our product candidates and technology, our patent portfolio with respect to certain aspects of our product candidates and technology is similarly at a very early stage. For example, we do not currently own or in-license any issued patents directed to the composition of matter, or methods of use, of any of the product candidates that we have thus far developed using our RAP Platform. We have filed and intend to continue filing patent applications directed to the compositions of matter, and methods of use, of our current and future product candidates. Composition of matter patents for pharmaceutical product candidates often provide a strong form of intellectual property protection for those types of products, as such patents provide protection without regard to their method of use. However, we cannot be certain that any claims in our patent applications directed to the composition of matter of our product candidates will be considered patentable by the United States Patent and Trademark Office, or the USPTO, or by patent offices in foreign countries, or that, if issued, the claims in any such patents, if challenged, will be adjudicated to be not invalid and enforceable by courts and administrative bodies in the U.S. or foreign countries. Further, if issued, any composition of matter patents covering our product candidates may expire at such a date that competitors may not be prevented from developing, making and marketing a product identical to our product candidates after expiration of any applicable regulatory exclusivities. Method of use patents protect the use of a product for the specified method or indication. This type of patent does not prevent a competitor from making and marketing a product identical to our product candidate for an indication that is outside the scope of the patented methods of use. Moreover, even if competitors do not actively promote their product for indications covered by our patents, clinicians may prescribe these competitor products "off-label" for uses that are covered by our method of use patents. Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent or prosecute. To establish our proprietary position, we own and have in-licensed certain intellectual property rights, and we and our licensors have filed and may file provisional and non-provisional patent applications in the U.S. or abroad relating to our product candidates and certain technologies that are important to our business. We may in the future also license or purchase intellectual property rights from others. Our ability to stop third parties from making, using, selling, marketing, offering to sell, importing and commercializing our product candidates and technology is dependent upon the extent to which we have rights under valid and enforceable patents and other intellectual property rights that cover our product candidates and technology. We cannot predict whether or when our owned or licensed pending and future patent applications

will result in the issuance of patents that provide us with any competitive advantage. If we or our licensors are unable to obtain, maintain, defend and enforce patents and other intellectual property rights with respect to our product candidates and technology, our business, financial condition, results of operations and prospects could be materially harmed.

The patent prosecution process is expensive, time-consuming and complex, and we and our licensors may not be able to file, prosecute, maintain, defend, enforce or license all necessary or desirable patent applications and patents at a reasonable cost or in a timely manner. In addition, we may not pursue or obtain patent protection in all relevant markets. U.S. provisional patent applications are not eligible to become issued patents until, among other things, we or our licensors file a non-provisional patent application within 12 months of the filing of one or more of our related provisional patent applications. Any failure to file a non-provisional patent application within this timeline could cause us or our licensors to lose our priority date with respect to the provisional patent application and any patent protection on the inventions disclosed in the provisional patent applications. We and our licensors may not be able to obtain, maintain or defend patents and patent applications due to the subject matter claimed in such patents and patent applications being in the public domain. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, external scientific collaborators, contract research organizations, contract manufacturers, consultants, advisors and other third parties, any of these parties may breach these agreements and disclose such output before a patent application is filed, thereby potentially jeopardizing our ability to seek patent protection.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has, in recent years, been the subject of much litigation. As a result, the issuance, scope, validity, enforceability and commercial value of patent rights are highly uncertain. Our owned and licensed pending and future patent applications may not result in patents being issued which protect our technology, our product candidates, or which effectively prevent others from commercializing competitive technologies and products or otherwise provide any competitive advantage. In fact, our owned or licensed patent applications may not issue as patents at all, and even if such patent applications do issue as patents, they may not issue in a form, or with a scope of claims, that will provide us with any meaningful protection, prevent others from competing with us, or otherwise provide us with any competitive advantage. In addition, the scope of the invention claimed in a patent application can be significantly reduced before a patent is issued, and the scope of claims of an issued patent can be reinterpreted after issuance. Any patents that eventually issue may be challenged, narrowed or invalidated by third parties. Moreover, changes in either the patent laws or interpretation of the patent laws in the U.S. and other jurisdictions may diminish the value of our patent rights or narrow the scope of our patent protection. Consequently, we do not know whether any of our product candidates will be protectable or remain protected by valid and enforceable patent rights. Furthermore, our competitors or other third parties may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner.

Third parties have developed technologies that may be related or competitive to our own technologies and product candidates and may have filed or may file patent applications, or may have obtained issued patents, claiming inventions that may overlap or conflict with those claimed in our owned or licensed patent applications or issued patents. We may not be aware of all third-party intellectual property rights potentially relating to our current and future product candidates and technology. Publications of discoveries in the scientific literature often lag the actual discoveries, and patent applications in the U.S. and other jurisdictions are typically not published until 18 months after filing or, in some cases, not at all. Therefore, we cannot know for certain whether the inventors of our owned or licensed patents and patent applications were the first to make the inventions claimed in any owned or licensed patents or pending patent applications, or that we were the first to file for patent protection of such inventions. If a third party can establish that we or our licensors were not the first to make or the first to file for patent protection of such inventions, our owned or licensed patent applications may not issue as patents and even if issued, may be challenged and invalidated or ruled unenforceable.

Furthermore, patents have a limited lifespan. In the U.S., the expiration of a patent is generally 20 years from the earliest date of filing of the first non-provisional patent application to which the patent claims priority. Patent term adjustments and extensions may be available; however, the overall term of a patent, and the protection it affords, is limited. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such product candidates are commercialized. As a result, our owned and licensed patent portfolio and other intellectual property rights may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours. Any of the foregoing could have a material adverse effect on our competitive position, business, financial condition, results of operations and prospects.

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

Our commercial success depends upon our ability and the ability of our collaborators to develop, manufacture, commercialize, market and sell our product candidates and use our proprietary technology without infringing, misappropriating or otherwise violating the intellectual property rights of third parties. The biotechnology and pharmaceutical industries are characterized by extensive and complex litigation regarding patents and other intellectual property rights. We may become party to, or be threatened with, adversarial proceedings or litigation in which third parties may assert infringement, misappropriation or other violation claims against us, alleging that our product candidates, compositions, technology, or methods are covered by their patents. Given the vast number of patents and other intellectual property in our field of technology, we cannot be certain or guarantee that we do not infringe, misappropriate or otherwise violate patents or other intellectual property. Other companies and institutions have filed, and continue to file, patent applications that may be related to our product candidates, compositions, technology and methods. Some of these patent applications have already been allowed or issued and others may issue in the future. Since this area is competitive and of strong interest to pharmaceutical and biotechnology companies, there will likely be additional patent applications filed and additional patents granted in the future, as well as additional research and development programs expected in the future. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing our product candidates and technology. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that we may be subject to claims of infringement of the patent rights of third parties. If a patent holder believes the manufacture, use, sale or importation of any product candidates we may develop or our technology infringes its patent, the patent holder may sue us even if we have licensed other patent rights for our product candidates or technology.

We are aware of certain U.S. and foreign issued patents and pending patent applications that claim subject matter that relates to certain of our product candidates and technology. Although we believe that their claims are invalid and/or not infringed, such third parties may assert these patents against us in litigation. The outcome of any such litigation is uncertain and, even if we prevail, the costs of such litigation could have a material adverse effect on our financial position, distract key personnel from the continued development of our business, and adversely affect our ability to enter or maintain commercial relationships with collaborators, clients, customers or other third parties. If we are unsuccessful in such litigation, we could be prevented from commercializing products or could be required to take licenses from such third parties, which may not be available on commercially reasonable terms, if at all.

It is also possible that we have failed to identify relevant third-party issued patents or patent applications. Because patent applications can take many years to issue, may be confidential for 18 months or more after filing and can be revised before issuance, there may be applications now pending which may later result in issued patents that may be infringed by the manufacture, use, sale or importation of our product candidates, compositions, or our technology and we may not be aware of such patents. Furthermore, applications filed before November 29, 2000 and certain applications filed after that date that will not be filed outside the U.S. may remain confidential until a patent issues. Moreover, it is difficult for industry participants, including us, to identify all third-party patent rights that may be relevant to our product candidates and our technology because patent searching is imperfect due to differences in terminology among patents, incomplete databases and the difficulty in assessing the meaning

of patent claims. We may fail to identify relevant patents or patent applications or may identify pending patent applications of potential interest but incorrectly predict the likelihood that such patent applications may issue with claims of relevance to our technology. In addition, we may incorrectly conclude that a third-party patent is invalid, unenforceable or not infringed by our activities. Additionally, pending patent applications that have been published can, subject to certain limitations, be later amended in a manner that could cover our technology product candidates, compositions, or methods.

Third parties may assert infringement claims against us based on existing patents or patents that may be granted in the future, regardless of the merit of the claim. There is a risk that third parties may choose to engage in litigation with us to enforce or to otherwise assert their patent rights against us. Even if we believe such claims are without merit, a court of competent jurisdiction could hold that these third-party patents are not invalid, enforceable and infringed, which could adversely affect our ability to commercialize our product candidates or technology 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 claim, there is no assurance that a court of competent jurisdiction would invalidate the claims of any such U.S. patent. If we are found to infringe a third party's valid and enforceable intellectual property rights, we could be required to obtain a license from such third party to continue developing, manufacturing and marketing our product candidates and technology. However, we may not be able to obtain any required license on commercially reasonable terms or at all. Even if we were able to obtain a license, it could be non-exclusive, thereby giving our competitors and other third parties access to the same technologies licensed to us, and it could require us to make substantial licensing and royalty payments. We could be forced, including by court order, to cease developing, manufacturing and commercializing the infringing technology or product candidates. In addition, we could be found liable for monetary damages, including treble damages and attorneys' fees, if we are found to have willfully infringed a patent or other intellectual property right. A finding of infringement could prevent us from manufacturing and commercializing our product candidates or force us to cease some of our business operations, which could harm our business. In addition, we may be forced to redesign our product candidates or technology, seek new regulatory approvals, and indemnify third parties pursuant to contractual agreements. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar negative impact on our business, financial condition, results of operations and prospects.

We may be involved in lawsuits to protect or enforce our patents or other intellectual property or the intellectual property of our licensors, which could be expensive, time-consuming, and unsuccessful.

Competitors may infringe our patents or other intellectual property rights, or the intellectual property rights of our licensors. To counter infringement or unauthorized use, we may be required to file infringement claims, which can be expensive and time-consuming and divert the time and attention of our management and scientific personnel. Our and our licensors' pending patent applications cannot be enforced against third parties practicing the technology claimed in such applications unless and until a patent issues from such applications. In addition, in an infringement proceeding or a declaratory judgment action, a court may decide that one or more of our or our licensors' patents is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceeding could put one or more of our or our licensors' patents at risk of being invalidated, held unenforceable, or interpreted narrowly and could put our or our licensors' patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business.

Even if we establish infringement, the court may decide not to grant an injunction against further infringing activity and instead award only monetary damages, which may or may not be an adequate remedy. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial

adverse effect on the price of our common stock. Moreover, there can be no assurance that we will have sufficient financial or other resources to file and pursue such infringement claims, which typically last for years before they are concluded. Even if we ultimately prevail in such claims, the monetary cost of such litigation and the diversion of the attention of our management and scientific personnel could outweigh any benefit we receive as a result of any proceedings. Any of the foregoing may have a material adverse effect on our business, financial condition, results of operations and prospects.

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

Filing, prosecuting, maintaining, enforcing and defending patents and other intellectual property rights relating to our technology and product candidates in all jurisdictions throughout the world would be prohibitively expensive, and accordingly, our intellectual property rights in some jurisdictions outside the U.S. could be less extensive than those in the U.S. In some cases, we or our licensors may not be able to obtain patent or other intellectual property protection for certain technology and product candidates outside the U.S. In addition, the laws of some foreign jurisdictions do not protect intellectual property rights to the same extent as federal and state laws in the U.S. Consequently, we and our licensors may not be able to obtain issued patents or other intellectual property rights covering our product candidates and our technology in all jurisdictions outside the U.S. and, as a result, we may not be able to prevent third parties from practicing our and our licensors' inventions in all countries outside the U.S., or from selling or importing products made using our inventions in and into the U.S. or other jurisdictions. Third parties may use our technologies in jurisdictions where we and our licensors have not pursued and obtained patent or other intellectual property protection to develop their own products and, further, may export otherwise infringing, misappropriating or violating products to territories where we have patent or other intellectual property protection, but enforcement is not as strong as that in the U.S. These products may compete with our product candidates and our technology and our or our licensors' patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Additionally, many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain jurisdictions, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biotechnology and pharmaceutical products, which could make it difficult for us to stop the infringement, misappropriation or other violation of our or our licensor's patent and other intellectual property rights or marketing of competing products in violation of our intellectual property rights generally. Proceedings to enforce our or our licensors' patent and other intellectual property rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our or our licensor's patent and other intellectual property rights at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We or our licensors may not prevail in any lawsuits that we or our licensors initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

As another example, the complexity and uncertainty of European patent laws have also increased in recent years. In Europe, a new unitary patent system went into effect on June 1, 2023, which significantly impacts European patents, including those granted before the introduction of such system. Under the unitary patent system, European applications have the option, upon grant of a patent, of becoming a Unitary Patent which will be subject to the jurisdiction of the Unitary Patent Court, or the UPC. Existing European patents and published applications may be opted out of the jurisdiction of the UPC at any time before the end of a transitional period (at least seven years from the UPC Agreement which went into effect on June 1, 2023), unless an action has already been brought before the UPC in which case an opt-out request cannot be filed. As the UPC is a new court system, there is no precedent for the court, increasing the uncertainty of any litigation. Patents granted before the implementation of the UPC will have the option of opting out of the jurisdiction of the UPC and remaining as national patents in the UPC countries. Patents that remain under the jurisdiction of the UPC will be potentially vulnerable to a single UPC-based revocation challenge that, if successful, could invalidate the patent in all countries who are signatories to the UPC. We cannot predict with certainty the long-term effects of any potential changes.

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

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

Periodic maintenance fees, renewal fees, annuity fees and various other government fees on patents and/or patent applications will be due to be paid to the USPTO and foreign government patent agencies over the lifetime of our owned or licensed patent rights. We rely on our outside counsel and other professionals or our licensing partners to pay these fees due to the USPTO and foreign government patent agencies. The USPTO and foreign government patent agencies also require compliance with several procedural, documentary and other similar provisions during the patent application process. We rely on our outside counsel and other professionals to help us comply and we are also dependent on our licensing partners to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment, loss of priority or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market and this circumstance could have a material adverse effect on our competitive position, business, financial condition, results of operations and prospects.

Changes in patent law in the U.S. and in foreign jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our product candidates and our technology.

As is the case with other biotechnology and pharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining, defending and enforcing patents in the biotechnology and pharmaceutical industry involves both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. Changes in either the patent laws or their interpretation in the U.S. and in foreign jurisdictions, including patent reform legislation such as the Leahy-Smith America Invents Act, or the" Leahy-Smith Act", signed into law on September 16, 2011, could increase these uncertainties and costs. The Leahy-Smith Act includes a number of significant changes to U.S. patent law. These changes include provisions that affect the way patent applications are prosecuted, redefine prior art, provide more efficient and cost-effective avenues for competitors to challenge the validity of patents, and enable third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent at USPTO-administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. In addition, the Leahy-Smith Act transformed the U.S. patent system into a "first-to-file" system. The first-to-file provisions, however, became effective on March 16, 2013. As such, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our owned and in-licensed patent applications and the enforcement or defense of our owned and in-licensed issued patents and issued patents we may own or in-license in the future, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Moreover, recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our or our licensors' ability to obtain patents in the future, this combination of events has created uncertainty with respect to the validity and enforceability of patents once obtained. Depending on future actions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that could have a material adverse effect on our patent rights and our ability to protect, defend and enforce our patent rights in the future.

If we obtain any patents covering our product candidates or our technology, they could nonetheless be found invalid or unenforceable if challenged in court or before administrative bodies in the U.S. or abroad.

The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability. Our owned and licensed patent rights, including any patent of our owned or in-licensed patent applications that may issue in the future, may be subject to priority, validity, inventorship and enforceability disputes. If we or our licensors are unsuccessful in any of these proceedings, such patent rights may be narrowed, invalidated or held unenforceable, we may be required to obtain licenses from third parties, which may not be available on commercially reasonable terms or at all, or we may be required to cease the development, manufacture and commercialization of one or more of our product candidates. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we or one of our licensors initiate legal proceedings against a third party to enforce a patent covering our product candidates or our technology, the defendant could counterclaim that the patent is invalid and/or unenforceable. In patent litigation in the U.S., defendant counterclaims alleging invalidity and/or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or enforceability of a patent. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, lack of written description or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld information material to patentability from the USPTO, or made a misleading statement, during prosecution. Third parties also may raise similar claims before administrative bodies in the U.S. or abroad, even outside the context of litigation. Such mechanisms include re-examination, interference proceedings, derivation proceedings, post grant review, *inter partes* review and equivalent proceedings in foreign jurisdictions, such as opposition, invalidation and revocation proceedings. Such proceedings could result in the revocation or cancellation of or amendment to our or our licensors' patents in such a way that they no longer cover our product candidates or our technology or prevent third parties from competing with our product candidates or our technology. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we, our licensing partners, or the patent examiners were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we could lose at least part, and perhaps all, of any patent protection we may eventually obtain relating to our f our product candidates or technology. Such a loss of patent protection could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we do not obtain patent term extension and data exclusivity for our product candidates, our business may be materially harmed.

Depending upon the timing, duration and specifics of any FDA marketing approval of our current or future product candidates that we may receive, one or more of our owned or in-licensed U.S. patents that we may obtain in the future may be eligible for limited patent term extension under the Drug Price Competition and Patent Restoration Act, or the "Hatch-Waxman Amendments". The Hatch-Waxman Amendments permit a patent extension term of up to five years as compensation for 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 product approval, only one patent may be extended and only those claims covering the approved product, a method for using it, or a method for manufacturing it may be extended. 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. However, we may not be granted an extension 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 period or the scope of patent protection afforded could be less than we request. In addition, to the extent we wish to pursue patent term extension based on a patent that we in-license from a third party, we would need the cooperation of that third party. If we are unable to obtain patent term extension or the term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and

our revenue could be reduced. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

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

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

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

In addition to seeking patents for some of our product candidates, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position. We seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who have access to them, such as our employees, corporate collaborators, external scientific collaborators, contract manufacturers, consultants, advisors, and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive, and time consuming, and the outcome is unpredictable. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, we may not be able to establish or maintain a competitive advantage, which could materially adversely affect our business, operating results and financial condition. If we choose to go to court to stop a third party from using any of our trade secrets, we may incur substantial costs. These lawsuits may consume our time and other resources even if we are successful. In addition, some courts inside and outside the U.S. are less willing or unwilling to protect trade secrets. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the U.S. and abroad. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

We may not be successful in obtaining necessary rights to product candidates we may develop through acquisitions and in-licenses.

We currently have rights to certain intellectual property through licenses from third parties. Because our product candidates and technology may require the use of additional intellectual property rights held by third parties, the growth of our business likely will depend, in part, on our ability to acquire, in-license or use these intellectual property rights. We may be unable to acquire or in-license any intellectual property rights related to compositions, methods of use, processes or other technology from third parties that we identify as necessary to our business operations on commercially reasonable terms, if at all. We may need to cease use of the compositions, methods of use, processes or other technology covered by such intellectual property rights, and may need to seek to develop alternative approaches that do not infringe on such intellectual property rights which may entail significant costs and development delays, even if we are able to develop such alternatives, which may not be feasible. Even if we are able to acquire or in-license any such necessary intellectual property, it could be on

non-exclusive terms, thereby giving our competitors and other third parties access to the same intellectual property licensed to us, and the applicable licensors could require us to make substantial licensing and royalty payments. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment.

We sometimes collaborate with non-profit and academic institutions to accelerate our preclinical research or development under written agreements with these institutions. In certain cases, these institutions provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to third parties, potentially blocking our ability to pursue our research programs and develop and commercialize our product candidates.

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

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

We have received, and will continue to receive, confidential and proprietary information from third parties. In addition, many of our employees, consultants, independent contractors or advisors are currently, or were previously, employed at universities or other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants, independent contractors 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 these individuals or we have deliberately, inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employers, competitors or other third parties, or to claims that we have improperly used or obtained such trade secrets or other proprietary information. We may be subject to claims that we or our employees, consultants, independent contractors or advisors have inadvertently or otherwise used or disclosed confidential information of third parties. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or be required to obtain licenses to such intellectual property rights, which may not be available on commercially reasonable terms or at all. An inability to incorporate such intellectual property rights would harm our business and may prevent us from successfully commercializing any product candidates or technology we may develop or at all. In addition, we may lose personnel as a result of such claims and any such litigation or the threat thereof may adversely affect our ability to hire employees or contract with consultants, independent contractors or advisors. A loss of key personnel or their work product could hamper or prevent our ability to commercialize any product candidates and our technology, which would have a material adverse effect on our business, results of operations, financial condition and prospects. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to our scientific and management personnel.

In addition, while it is our policy to require our employees and consultants who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual

property that we regard as our own. Moreover, even when we obtain agreements assigning intellectual property to us, the assignment of intellectual property rights may not be self-executing or the 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. Furthermore, individuals executing agreements with us may have pre-existing or competing obligations to a third party, such as an academic institution, and thus an agreement with us may be ineffective in perfecting ownership of inventions developed by that individual. Disputes about the ownership of intellectual property that we own may have a material adverse effect on our business, financial condition, results of operations and prospects.

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

Our trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be infringing on other marks. We rely on both registration and common law protection for our trademarks. During trademark registration proceedings, we may receive rejections. Although we would be given an opportunity to respond to those rejections, we may be unable to overcome such rejections. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and to seek to cancel registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. As a means to enforce our trademark rights and prevent infringement, we may be required to file trademark claims against third parties or initiate trademark opposition proceedings. This can be expensive and time-consuming, particularly for a company of our size. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners, clients or customers in our markets of interest. At times, 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 potential 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 diversion of resources. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations or prospects.

Intellectual property rights do not necessarily address all potential threats.

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

- others may be able to make products that are similar to our product candidates or that utilize similar technology but that are not covered by the intellectual property rights, including the claims of the patents, that we own or license currently or in the future;
- we, or our current or future license partners or collaborators, might not have been the first to make the inventions covered by the issued patent or pending patent application that we own or license currently or in the future;
- we, or our current or future license partners or collaborators, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing, misappropriating or otherwise violating our owned or licensed intellectual property rights;
- it is possible that our current or future owned or licensed pending patent applications will not lead to issued patents;

- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by third parties;
- third parties might conduct research and development activities in jurisdictions where we do not have patent or other intellectual property rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents or other intellectual property rights of others may have an adverse effect on our business; and
- we may choose not to file a patent for certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could significantly harm our business, financial condition, results of operations and prospects.

Intellectual property discovered through government funded programs may be subject to federal regulations such as "march-in" rights, certain reporting requirements and a preference for U.S.-based companies. Compliance with such regulations may limit our exclusive rights and limit our ability to contract with non-U.S. manufacturers.

We have in-licensed certain patents and patent applications that were generated through the use of U.S. government funding or grants, and we may acquire or license in the future intellectual property rights that have been generated through the use of U.S. government funding or grants. Pursuant to the Bayh-Dole Act of 1980, the U.S. government has certain rights in inventions developed with government funding. These U.S. government rights include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. In addition, the U.S. government has the right, under certain limited circumstances, to require us to grant exclusive, partially exclusive, or non-exclusive licenses to any of these inventions to a third party if it determines that: (1) adequate steps have not been taken to commercialize the invention; (2) government action is necessary to meet public health or safety needs; or (3) government action is necessary to meet requirements for public use under federal regulations (also referred to as "march-in" rights). If the U.S. government exercised its march-in rights in our current or future intellectual property rights generated through the use of U.S. government funding or grants, we could be forced to license or sublicense intellectual property developed by us or that we license on terms unfavorable to us, and there can be no assurance that we would receive compensation from the U.S. government for the exercise of such rights. The U.S. government also has the right to take title to these inventions if the grant recipient fails to disclose the invention to the government or fails to file an application to register the intellectual property within specified time limits. Intellectual property generated under a government funded program is also subject to certain reporting requirements, compliance with which may require us to expend substantial resources. In addition, the U.S. government requires that any products embodying any of these inventions or produced through the use of any of these inventions be manufactured substantially in the U.S. This preference for U.S. industry may be waived by the federal agency that provided the funding if the owner or assignee of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the U.S. or that under the circumstances domestic manufacture is not commercially feasible. This preference for U.S. industry may limit our ability to contract with non-U.S. product manufacturers for products covered by such intellectual property. Any failure by us to comply with federal regulations regarding intellectual property rights that were developed through the use of U.S. government funding could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks related to our business operations and industry

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 or any guidance we may provide.

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- the timing and cost of, and level of investment in, research, development, regulatory approval, and commercialization activities relating to our product candidates, which may change from time to time, including the need to conduct unanticipated clinical trials or trials that are larger or more complex than anticipated;
- our ability to enroll patients in clinical trials and the timing of enrollment;
- the timing and success or failure of preclinical studies or clinical trials for our product candidates or competing products, or any other change in the competitive landscape of our industry, including consolidation among our competitors or partners;
- coverage and reimbursement policies with respect to our product candidates, if approved, and potential future drugs that compete with our product candidates;
- the cost of manufacturing our product candidates, which may vary depending on the quantity of production and the terms of our agreements with third-party manufacturers;
- expenditures that we may incur to acquire, develop, or commercialize additional product candidates and technologies;
- the level of demand for any approved product candidates, which may vary significantly and be difficult to predict;
- our ability to establish and maintain collaborations, licensing, or other arrangements;
- potential unforeseen business disruptions that increase our costs or expenses;
- future accounting pronouncements or changes in our accounting policies; and
- the timing and amount of any milestone, royalty, or other payments payable by us or due to us under any collaboration, licensing, or other similar agreement.

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.

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 revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the 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.

We face substantial competition, which may result in others discovering, developing or commercializing products before us or more successfully than we do.

The development and commercialization of new drug products is highly competitive. We may face competition with respect to any product candidates that we may develop from major pharmaceutical companies, specialty pharmaceutical companies and biotechnology companies worldwide. There are a number of large pharmaceutical and biotechnology companies that currently market and sell products or are pursuing the development of products for the treatment of some of the disorders for which we are conducting research and development programs. 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.

Our commercial opportunity could be reduced or eliminated if our competitors develop and commercialize products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than our product candidates or that would render any product candidates that we may develop obsolete or non-competitive. Our competitors also may obtain FDA or other regulatory approval for their products more

rapidly than we may obtain approval for ours, which could result in our competitors establishing a strong market position before we are able to enter the market. Additionally, technologies developed by our competitors may render our product candidates uneconomical or obsolete, and we may not be successful in marketing any product candidates we may develop against competitors.

We expect to face competition from existing products and product candidates in development for each of our programs and product candidates. In addition to the current standard-of-care treatments to address the diseases we are targeting in therapeutic development programs, numerous commercial and academic preclinical studies and clinical trials are being undertaken by a large number of parties to assess novel technologies and product candidates.

For the broad treatment of patients with UCDs, we will compete with Amgen Inc., who has commercialized Ravicti, a nitrogen scavenger. Other therapeutics in development are focused on patients with OTC deficiency only, where we will potentially compete with Ultragenyx Pharmaceutical Inc., Arcturus Therapeutics Holdings Inc., and iECure, among others, assuming they are successful in clinical development. Large pharmaceutical companies that have commercialized or are developing treatments for hypercholesterolemia include Amgen Inc., Regeneron Pharmaceuticals, Inc. and Novartis AG. Companies that compete with us directly on the level of the development of product candidates targeting SYNGAP1-related disorders include Stoke Therapeutics, Inc. and Praxis Precision Medicines, Inc. Companies engaged in the commercialization and development of antisense oligonucleotides as therapeutics include Alnylam Pharmaceuticals, Inc. and Ionis Pharmaceuticals Inc.

Many of the companies against which we compete or against which we may compete in the future have significantly greater financial resources and expertise in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approvals and marketing approved products than we do. Accordingly, our competitors may be more successful than us in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory and marketing approvals, and achieving widespread market acceptance, rendering our product candidates obsolete or non-competitive.

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

If we successfully obtain approval for any product candidate, we will face competition based on many different factors, including the safety and effectiveness of our products and 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. Competing products could present superior treatment alternatives, including by being more effective, safer, more convenient, less expensive or marketed and sold more effectively than any products we may develop. Competitive products or technological approaches may make any products we develop, or our RAP Platform, obsolete or noncompetitive before we recover the expense of developing and commercializing our product candidates. If we are unable to compete effectively, our opportunity to generate revenue from the sale of our products we may develop, if approved, could be adversely affected.

Our international activities subject us to various risks, and our failure to manage these risks could adversely affect our results of operations.

We face significant operational risks as a result of doing business internationally, such as:

- fluctuations in foreign currency exchange rates;
- differing payor reimbursement regimes, governmental payors or patient self-pay systems and price controls;

- potentially adverse and/or unexpected tax consequences, including penalties due to the challenge by tax authorities on our tax position;
- potential changes to the accounting standards, which may influence our financial situation and results;
- compliance with tax, employment, immigration and labor laws should we have any employees living or traveling abroad;
- becoming subject to the different, complex and changing laws, regulations and court systems of multiple jurisdictions and compliance with a wide variety of foreign laws, treaties;
- reduced protection of, or significant difficulties in enforcing, intellectual property rights, or increased risk of intellectual property disputes, in certain countries;
- difficulties in attracting and retaining qualified consultants, contractors, and personnel;
- restrictions imposed by any applicable local labor practices and laws on our business and operations, including unilateral cancellation or modification of contracts;
- rapid changes in global government, economic and political policies and conditions, political or civil unrest or instability, terrorism or epidemics and other similar outbreaks or events, and potential failure in confidence of our suppliers or customers due to such changes or events;
- geopolitical tensions that affect our activities, operations and/or operations of our contractors, consultants, collaborators, vendors or partners; and
- tariffs, trade protection measures, import or export licensing requirements, trade embargoes and other trade barriers.

We conduct certain research and development operations through our wholly-owned Australian subsidiary. If we lose our ability to operate in Australia, or if our subsidiary is unable to receive the research and development incentive payment allowed by Australian regulations, our business and results of operations could suffer.

In September 2023, we formed a wholly-owned Australian subsidiary, CAMP4 Therapeutics Pty Ltd, to conduct various clinical activities for our product candidates in Australia. Due to the geographical distance and lack of employees currently in Australia, as well as our lack of experience operating in Australia, we may not be able to efficiently or successfully monitor our clinical activities in Australia, including conducting clinical trials. Furthermore, we have no assurance that the results of any clinical trials that we conduct for our product candidate in Australia will be accepted by the FDA or comparable foreign regulatory authorities for development and commercialization approvals.

In addition, current Australian tax regulations provide for a refundable research and development incentive plan of up to 18.5% of qualified expenditures. If our subsidiary loses its ability to operate in Australia, or if we are ineligible or unable to receive the research and development incentive payment, or the Australian government significantly reduces or eliminates the incentive program, our business and results of operation may be adversely affected.

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

We are highly dependent on the research and development, clinical, financial, operational and other business expertise of our executive officers, as well as the other principal members of our management, scientific and clinical teams. Although we expect to enter into employment offer letters with each of our executive officers in connection with this offering, our executive officers may terminate their employment with us at any time. We do not maintain “key person” insurance for any of our executives or other employees. Recruiting and retaining qualified scientific, clinical, manufacturing, accounting, legal and sales and marketing personnel will also be critical to our success.

The loss of the services of our executive officers or other key employees could impede the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement

our business strategy. Furthermore, replacing executive officers and key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain regulatory approval of and commercialize products. Competition to hire from this limited pool is intense, and we may be unable to hire, train, retain or motivate these key personnel on acceptable terms given the competition among numerous pharmaceutical and biotechnology companies for similar personnel. We also experience competition for the hiring of scientific and clinical personnel from universities and research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development and commercialization strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. Our success as a public company also depends on implementing and maintaining internal controls and the accuracy and timeliness of our financial reporting. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited.

We may encounter difficulties in managing our growth and expanding our operations successfully.

As of March 31, 2024, we had 64 full-time employees. As we continue development and pursue the potential commercialization of our product candidates, as well as transition to functioning as a public company, we will need to expand our financial, development, regulatory, manufacturing, information technology, marketing, and sales capabilities or contract with third parties to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various strategic partners, suppliers, and other third parties, and we may not be successful in doing so. Our future financial performance and our ability to develop and commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively.

We may engage in strategic transactions that could impact our liquidity, increase our expenses, and present significant distractions to our management.

From time to time, we may consider strategic transactions, such as acquisitions of companies, asset purchases, and out-licensing or in-licensing of intellectual property, products, or technologies. Additional potential transactions that we may consider in the future include a variety of business arrangements, including spin-offs, strategic partnerships, joint ventures, restructurings, divestitures, business combinations, and investments. Any future transactions could increase our near and long-term expenditures, result in potentially dilutive issuances of our equity securities, including our common stock, or the incurrence of debt, contingent liabilities, amortization expenses or acquired in-process research and development expenses, any of which could affect our financial condition, liquidity, and results of operations. Future acquisitions may also require us to obtain additional financing, which may not be available on favorable terms or at all. These transactions may never be successful and may require significant time and attention of our management. In addition, the integration of any business that we may acquire in the future may disrupt our existing business and may be a complex, risky, and costly endeavor for which we may never realize the full benefits. Furthermore, we may experience losses related to investments in other companies, including as a result of failure to realize expected benefits or the materialization of unexpected liabilities or risks, which could have a material negative effect on our results of operations and financial condition. Accordingly, although there can be no assurance that we will undertake or successfully complete any additional transactions of the nature described above, any additional transactions that we do complete could have a material adverse effect on our business, results of operations, financial condition, and prospects.

Clinical trial and product liability lawsuits against us could divert our resources, could cause us to incur substantial liabilities and could limit commercialization of our product candidates.

We will face an inherent risk of clinical trial and product liability exposure related to the testing of our product candidates in clinical trials, and we will face an even greater risk if we commercially sell any products that we may develop. While we currently have no product candidates that have been approved for commercial sale, the use of product candidates by us in clinical trials, and the sale of any approved products in the future, may expose us to liability claims. These claims might be made by patients that use the product, healthcare providers,

pharmaceutical companies or others selling such products. If we cannot successfully defend ourselves against claims that our product candidates or products caused injuries, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- decreased demand for any product candidates we may develop;
- injury to our reputation and significant negative media attention;
- withdrawal of clinical trial participants and inability to continue clinical trials;
- initiation of investigations by regulators;
- significant costs to defend any related litigation;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- substantial monetary awards to trial participants or patients;
- loss of revenue;
- exhaustion of any available insurance and our capital resources;
- declined in our stock price;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize any product candidates we may develop.

Although we maintain clinical trial liability insurance coverage, such insurance may not be adequate to cover all liabilities that we may incur. The cost of any product liability litigation or other proceeding, even if resolved in our favor, could be substantial. We may need to increase our insurance coverage as we expand our clinical trials or if we commence commercialization of any product candidates that receive marketing approval. Insurance coverage is increasingly expensive. We may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. If a successful clinical trial or product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be impaired.

Our insurance policies are expensive and protect us from only some business risks, which will leave us exposed to significant uninsured liabilities.

We do not carry insurance for all categories of risk that our business may encounter. Some of the policies we currently maintain or will maintain upon completion of this offering include property, general liability, employee benefits liability, workers' compensation, clinical trial liability, cyber liability, and directors' and officers' insurance. We do not know, however, if we will be able to maintain insurance with adequate levels of coverage. No assurance can be given that an insurance carrier will not seek to cancel or deny coverage after a claim has occurred. Any significant uninsured liability may require us to pay substantial amounts, which would adversely affect our financial position and results of operations.

Our internal network and information technology systems, or those of our vendors, collaborators, consultants, service providers and other contractors may suffer failure, security breach, loss or leakage of data, or other disruptions or compromise, which could result in a material disruption of our product development programs, compromise sensitive information, prevent us from accessing critical information, trigger contractual and legal obligations, or otherwise disrupt our business and materially impact our operations, potentially exposing us to liability, reputational harm, or other adverse effects on our business and financial results.

We are increasingly dependent upon information technology systems, infrastructure and data, some of which is managed by third parties, to operate our business. In the ordinary course of business, we collect, store and transmit large amounts of confidential information (including, but not limited to, intellectual property, proprietary business information and personal information). The secure processing, maintenance, and transmission of this information—including maintaining the availability, security, confidentiality, privacy and integrity of such confidential information—is critical to our operations and business. We have also outsourced elements of our

operations to third parties, and as a result a number of third-party vendors, collaborators, consultants, service providers and other contractors (including our contract research organizations, CMOs and CROs) may or could have access to our confidential information, including our research and development efforts.

Despite the implementation of security measures, given the size and complexity of our internal information technology systems and those of any current or future vendors, collaborators, consultants, service providers and other contractors, and the increasing amounts of confidential information we maintain, such information technology systems are vulnerable to breakdown or other damage or interruption due to service interruptions, system malfunctions, natural disasters, terrorism, war and telecommunication and electrical failures, as well as security breaches from inadvertent or intentional actions by our employees, vendors, collaborators, consultants, service providers, other contractors and/or other third parties, or from cyber-attacks by malicious third parties (including the deployment of harmful malware, ransomware, computer viruses, denial-of-service attacks, social engineering, “phishing” scams, network security breaches and other means to affect the service reliability and threaten the confidentiality, integrity and availability of information), which may compromise our system infrastructure, or that of our vendors, collaborators, consultants, service providers and other contractors, or lead to data leakage. In addition to such risks, the adoption of new technologies may also increase our exposure to cybersecurity breaches or failures. The risk of a security breach or disruption, particularly through cyber-attacks or cyber intrusion, including by computer hackers, foreign governments and cyber terrorists, has generally increased as the number, intensity, and sophistication of attempted attacks and intrusions from around the world have increased. We may not be able to anticipate all types of security threats, and we may not be able to implement preventive measures that are effective against all such security threats. The techniques used by cyber criminals change frequently, may not be recognized until launched, and can originate from a wide variety of sources, including outside groups such as external service providers, organized crime affiliates, terrorist organizations or hostile foreign governments or agencies.

Although we seek to protect our information technology systems our efforts may not be successful. If such an event were to occur, it could result in a delay or disruption of our development programs and our business operations, whether due to a loss of our data, trade secrets or other proprietary or confidential information or other disruptions, and we could incur liability and reputational damage. For example, the loss of clinical trial data could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. If we were to experience disruptions or security breaches of our information technology systems, the costs associated with the investigation, remediation and potential notification of the breach to counterparties, data subjects, regulators or others could be material. In addition, our remediation efforts may not be successful. Moreover, if the information technology systems of our vendors, collaborators, consultants, service providers and other contractors become subject to disruptions or security breaches, we may have insufficient recourse against such third parties and we may have to expend significant resources to mitigate the impact of such an event, and to develop and implement protections to prevent future events of this nature from occurring. If we do not allocate and effectively manage the resources necessary to build and sustain the proper technology and cybersecurity infrastructure, we could suffer significant business disruption, including transaction errors, supply chain or manufacturing interruptions, processing inefficiencies, data loss or the loss of or damage to intellectual property or other proprietary information. With the evolving nature of cybersecurity threats, the scope and impact of any information security incident cannot be predicted. In addition, more than a dozen states in the U.S. have also passed comprehensive data protection legislation, and the global regulatory environment pertaining to information security and privacy is increasingly demanding, with new and changing requirements, such as the European Union’s General Data Protection Regulation, The Personal Information Protection Law of the People’s Republic of China, and Brazil’s Lei Geral de Protecao de Dados. Complying with these laws and regulations may be more costly or take longer than we anticipate, and any failure to comply could result in fines or penalties.

To the extent that any disruption or security breach were to result in a loss of, or damage to, our or our vendors’, collaborators’, consultants’, service providers’ or other contractors’ data or applications, or inappropriate disclosure of confidential or proprietary information, we could incur liability including litigation exposure, penalties and fines, we could become the subject of regulatory action or investigation, our competitive position and

reputation could be harmed and the further development and commercialization of our product candidates could be delayed. As a result of such an event, we may be in breach of our contractual obligations. Furthermore, any such event that leads to unauthorized access, use, or disclosure of personal information, including personal information regarding our employees or current or future clinical trial participants, could harm our reputation, compel us to comply with federal and/or state breach notification laws and foreign law equivalents, subject us to mandatory corrective action, and otherwise subject us to liability under laws and regulations that protect the privacy and security of personal information, which could result in significant legal and financial exposure and reputational damage. Any of the above could have a material adverse effect on our business, financial condition, results of operations or prospects.

The financial exposure from the events referenced above could either not be insured against or not be fully covered through any insurance that we maintain and could have a material adverse effect on our business, financial condition, results of operations or prospects. In addition, we cannot be sure that our existing insurance coverage will continue to be available on acceptable terms or that our insurers will not deny coverage as to any future claim. There can be no assurance that the limitations of liability in our contracts would be enforceable or adequate or would otherwise protect us from liabilities or damages as a result of the events referenced above.

Our operations or those of the third parties upon whom we depend might be affected by the occurrence of a natural disaster, pandemic or other catastrophic event.

We depend on our employees, consultants, vendors, service providers, and other contractors (including CMOs and CROs), as well as regulatory agencies and other third parties, for the continued operation of our business. Despite any precautions we take for natural disasters or other catastrophic events, these events, including terrorist attack, pandemics, hurricanes, fire, floods and ice and snowstorms, could result in significant disruptions to our research and development, preclinical studies, clinical trials, and, ultimately, commercialization of our products. Long-term disruptions in infrastructure caused by events, such as natural disasters, the outbreak of war, the escalation of hostilities and acts of terrorism or other “acts of God,” particularly involving those places in which we maintain office space or at our manufacturing or clinical trial sites, could adversely affect our businesses. Although we carry business interruption insurance policies and typically have provisions in our contracts that protect us in certain events, our coverage might not respond or be adequate to compensate us for all losses that may occur. Any natural disaster or catastrophic event affecting us, our consultants, vendors, service providers, and other contractors, regulatory agencies or other parties with which we are engaged could have a significant negative impact on our operations and financial performance.

Our business could be affected by litigation, government investigations, and enforcement actions.

We currently operate in a number of jurisdictions in a highly regulated industry, and we could be subject to litigation, government investigation, and enforcement actions on a variety of matters in the U.S. or foreign jurisdictions, including, without limitation, intellectual property, regulatory, product liability, environmental, whistleblower, false claims, privacy, anti-kickback, anti-bribery, securities, commercial, employment, and other claims and legal proceedings that may arise from conducting our business. Any determination that our operations or activities are not in compliance with existing laws or regulations could result in the imposition of fines, civil and criminal penalties, equitable remedies, including disgorgement, injunctive relief, and/or other sanctions against us, and remediation of any such findings could have an adverse effect on our business operations.

Legal proceedings, government investigations, and enforcement actions can be expensive and time-consuming. An adverse outcome resulting from any such proceedings, investigations or enforcement actions could result in significant damages awards, fines, penalties, exclusion from the federal healthcare programs, healthcare debarment, injunctive relief, product recalls, reputational damage, and modifications of our business practices, which could have a material adverse effect on our business and results of operations. Even if such a proceeding, investigation, or enforcement action is ultimately decided in our favor, the investigation and defense thereof could require substantial financial and management resources.

Our employees, consultants, collaborators, vendors, service providers and other contractors may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements and insider trading.

We are exposed to the risk of employee and third-party fraud or other misconduct or failure to comply with applicable regulatory requirements. Any past, current or future misconduct or non-compliance by our prior, existing or future employees, consultants, vendors, service providers and other contractors with any industry or regulatory standards or requirements may result in a material adverse effect on our operations or harm our reputation. Misconduct by these parties could include intentional failures to comply with FDA regulations and/or those of comparable applicable regulatory authorities, provide accurate information to such regulatory authorities, comply with manufacturing standards, comply with healthcare fraud and abuse laws and regulations in the U.S. and abroad, report financial information or data accurately, or disclose unauthorized activities to us. In particular, sales, marketing and other business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of business activities, including, but not limited to, research, manufacturing, distribution, pricing, discounting, marketing and promotion, sales commission, support programs and other business arrangements. Misconduct by these parties could also involve the improper use of individually identifiable information or information obtained in the course of clinical trials or interactions with the FDA, TGA or other regulatory authorities, which could result in regulatory sanctions and cause serious harm to our reputation. We have adopted a code of conduct applicable to all of our employees, but it is not always possible to identify and deter employee or third-party 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 government investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, those actions could have a significant impact on our business, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgement of profits, imprisonment, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, or other government-supported healthcare in other jurisdictions, contractual damages, reputational harm, diminished profits and future earnings, additional reporting or oversight obligations if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with the law and curtailment or restructuring of our operations, any of which could adversely affect our ability to operate. and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, financial condition, results of operations and prospects, including the imposition of significant civil, criminal and administrative penalties, damages, monetary fines, disgorgement of profits, imprisonment, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, or other government-supported healthcare in other jurisdictions, contractual damages, reputational harm, diminished profits and future earnings, additional reporting or oversight obligations if we become subject to a corporate integrity agreement or other agreement to resolve allegations of non-compliance with the law and curtailment or restructuring of our operations, or other sanctions, any of which could adversely affect our ability to operate.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be subject to limitations.

We have a history of cumulative losses and anticipate that we will continue to incur significant losses in the foreseeable future; thus, we do not know whether or when we will generate taxable income necessary to utilize our net operating losses, or NOLs, or research and development tax credit carryforwards. As of December 31, 2023, we had federal NOL carryforwards of $69.8 million and state NOL carryforwards of $66.6 million.

In general, under Sections 382 and 383 of the U.S. Internal Revenue Code of 1986, as amended, or the Code, and corresponding provisions of state law, a corporation that undergoes an “ownership change,” generally defined as a greater than 50 percentage point change (by value) in its equity ownership by certain stockholders over a three-year period, is subject to limitations on its ability to utilize its pre-change NOLs and pre-change research and development tax credit carryforwards to offset post-change taxable income. We have not yet conducted a study to determine if any such changes have occurred that could limit our ability to use the NOL and tax credit

carryforwards. As a result, if, and to the extent that, we earn net taxable income, our ability to use our NOL carryforwards and research and development tax credit carryforwards to offset such taxable income may be subject to limitations.

There is also a risk that due to regulatory changes, such as suspensions on the use of NOLs, or other unforeseen reasons, our existing NOLs could expire or otherwise become unavailable to offset future income tax liabilities. Tax legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act, or the Tax Act, as amended by the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act, includes changes to U.S. federal tax rates and the rules governing NOL carryforwards that may significantly impact our ability to utilize our NOLs to offset taxable income in the future. In addition, state NOLs generated in one state cannot be used to offset income generated in another state. For these reasons, even if we attain profitability, we may be unable to use a material portion of our NOLs and other tax attributes.

Exchange rate fluctuations may affect our results of operations and financial conditions.

Fluctuations in exchange rates, particularly between the U.S. dollar and the Australian dollar, may adversely affect us. Although we are incorporated in Delaware in the U.S., we currently conduct clinical development in Australia. As a result, our business and the price of our common stock may be affected by fluctuations in foreign exchange rates, which may have a significant impact on our results of operations and cash flows from period to period. Currently, we do not have any exchange rate hedging arrangements in place.

Risks related to this offering and ownership of our common stock

There has been no public market for our common stock. An active, liquid, and orderly market for our common stock may not develop, or we may in the future fail to satisfy the continued listing requirements of Nasdaq, and investors may not be able to resell their common stock at or above the initial public offering price or at all.

Prior to this offering, there has been no public market for our common stock and the completion of this offering is contingent on receiving approval for listing on the Nasdaq Global Market, or Nasdaq. Although we have applied to list our common stock on Nasdaq, an active trading market for our common stock may never develop or may not be sustained following this offering. We and the representatives of the underwriters will determine the initial public offering price of our common stock through negotiation. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, an active trading market may not develop following the consummation of this offering or, if it does develop, may not be sustained. The lack of an active market may impair investors' ability to sell their shares at the time they wish to sell them or at a price they consider reasonable. An inactive market may also impair our ability to raise capital by selling shares and may impair our ability to acquire other businesses or technologies using our shares as consideration, which, in turn, could materially adversely affect our business.

If, after listing, we fail to satisfy the continued listing requirements of Nasdaq, such as the corporate governance requirements or the minimum closing bid price requirement, Nasdaq may take steps to delist our common stock. Such a delisting would likely have a negative effect on the price of our common stock and would impair investors' ability to sell or purchase our common stock when they wish to do so. In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with listing requirements would allow our common stock to become listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the Nasdaq minimum bid price requirement, or prevent future non-compliance with the listing requirements of Nasdaq.

The trading price of the shares of our common stock could be highly volatile, and purchasers of our common stock could incur substantial losses.

Our stock price is likely to be volatile. The stock market in general and the market for stock of biopharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of individual companies. As a result of this volatility, investors may not be able to sell their common

stock at or above the initial public offering price. The market price for our common stock may be influenced by those factors discussed in this “Risk factors” section and many others, including:

- results of our clinical trials and preclinical studies, and the results of trials of our competitors or those of other companies in our market sector;
- our ability to enroll patients in our current and any future clinical trials;
- our ability to obtain and maintain regulatory approval of our product candidates or additional indications thereof, or limitations to specific label indications or patient populations for its use, or changes or delays in the regulatory review process;
- regulatory or legal developments in the U.S. and foreign countries;
- changes in the structure of healthcare payment systems;
- the success or failure of our efforts to develop, acquire, or license additional product candidates;
- innovations, clinical trial results, product approvals and other developments regarding our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, or capital commitments;
- manufacturing, supply, or distribution delays or shortages;
- any changes to our relationship with any manufacturers, suppliers, collaborators, or other strategic partners;
- achievement of expected product sales and profitability;
- variations in our financial results or development timelines or those of companies that are perceived to be similar to us, including variations from expectations of securities analysts or investors;
- market conditions in the biopharmaceutical sector and issuance of securities analysts’ reports or recommendations;
- trading volume of our common stock;
- an inability to obtain additional funding;
- sales of our stock by us, our insiders, or our stockholders, as well as the anticipation of lock-up releases or expiration of market stand-off or lock-up agreements;
- general economic, industry, geopolitical, and market conditions, such as military conflict or war, inflation and financial institution instability, or pandemic or epidemic disease outbreaks, many of which are beyond our control;
- additions or departures of senior management, directors, or key personnel;
- intellectual property, product liability, or other litigation against us or our inability to enforce our intellectual property;
- changes in our capital structure, such as future issuances of securities and the incurrence of additional debt; and
- changes in accounting standards, policies, guidelines, interpretations, or principles.

In addition, in the past, stockholders have initiated class action lawsuits against biopharmaceutical companies following periods of volatility in the market prices of these companies’ stock. Such litigation, if instituted against us, could cause us to incur substantial costs, divert our management’s attention and resources and damage our reputation, which could have a material adverse effect on our business, financial condition and results of operations and prospects.

We may allocate the net proceeds from this offering in ways that stockholders may not approve.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section titled "Use of proceeds." Because of the number and variability of factors that will determine our use of the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment, and the failure by our management to apply these funds effectively could harm our business. Pending their use, we may invest the net proceeds from this offering in short-and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit, or direct or guaranteed obligations of the U.S. government. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected results, which could cause our stock price to decline.

You will suffer immediate and substantial dilution in the net tangible book value of the common stock you purchase in this offering.

The initial public offering price of our common stock is substantially higher than the pro forma as adjusted net tangible book value per share of our outstanding common stock immediately after the closing of this offering. Purchasers of common stock in this offering will experience immediate dilution of approximately $ per share, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus. In the past, we issued options to acquire common stock at prices significantly below the initial public offering price. To the extent these outstanding options are ultimately exercised, investors purchasing common stock in this offering will sustain further dilution. For a further description of the dilution that you will experience immediately after this offering, see the section titled "Dilution."

A significant portion of our total outstanding shares is restricted from immediate resale but may be sold into the market in the near future, which could cause the market price of our common stock to decline significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales upon the expiration of the lock-up agreements (described in the "Underwriting" section of this prospectus), the early release of the lock-ups, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. After the completion of this offering, we will have shares of common stock outstanding, or shares if the underwriters exercise their option to purchase additional shares in full, in each case based on the shares of our common stock outstanding as of , 2024. Of these shares, the shares (or shares if the underwriters exercise in full their option to purchase additional shares) we are selling in this offering may be resold in the public market immediately, unless purchased by our affiliates. The remaining shares are currently restricted under securities laws or as a result of lock-up or other agreements, but will be able to be sold after the completion of this offering as described in the "Shares eligible for future sale" section of this prospectus. J.P. Morgan and Leerink Partners may release some or all of the shares of common stock subject to lock-up agreements at any time in their sole discretion and without notice, except for directors and officers, which would allow for earlier sales of shares in the public market.

Moreover, after the completion of this offering, holders of an aggregate of shares of our common stock will have rights, subject to conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. We also plan to register all shares of common stock that we may issue under our equity compensation plans or that are issuable upon exercise of outstanding options. Once we register these shares, they can be freely sold in the public market upon issuance and once vested, subject to volume limitations applicable to affiliates and the lock-up agreements described in the "Underwriting" section of this prospectus. If any of these additional shares are sold, or if it is perceived that they will be sold, in the public market, the market price of our common stock could decline.

After this offering, our executive officers, directors, and principal stockholders, if they choose to act together, will continue to have the ability to significantly influence all matters submitted to stockholders for approval.

Following the completion of this offering, our executive officers, directors and greater than 5% stockholders, in the aggregate, will own approximately % of our outstanding common stock (assuming no exercise of the

underwriters' option to purchase additional shares and no exercise of outstanding options and without giving effect to any potential purchases by such persons in this offering). As a result, such persons, acting together, will have the ability to significantly influence all matters submitted to our board of directors or stockholders for approval, including the appointment of our management, the election and removal of directors and approval of any significant transaction, as well as our management and business affairs. This concentration of ownership may have the effect of delaying, deferring, or preventing a change in control, impeding a merger, consolidation, takeover or other business combination involving us, or discouraging a potential acquiror from making a tender offer or otherwise attempting to obtain control of our business, even if such a transaction would benefit other stockholders.

We do not currently intend to pay dividends on our common stock, so any returns on your investment will be limited to the value of our common stock.

We have never declared or paid any cash dividend on our common stock. We currently anticipate that we will retain future earnings for the development, operation, and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. In addition, any future debt agreements may preclude us from paying dividends. Any return to stockholders will therefore be limited to the appreciation of their stock. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which stockholders have purchased their shares.

Sales of a substantial number of shares of our common stock by our existing stockholders in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur could significantly reduce the market price of our common stock and impair our ability to raise adequate capital through the sale of additional equity or equity-linked securities.

Based on shares of common stock outstanding as of , 2024, upon the closing of this offering, we will have a total of shares of common stock outstanding, assuming no exercise of the underwriters' option to purchase additional shares and no exercise of outstanding options. Of these shares, only the shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriters' option to purchase additional shares, will be freely tradable, without restriction, in the public market immediately following this offering, unless they are purchased by one of our affiliates.

Our directors and executive officers and the holders of substantially all of our common stock have entered into lock-up agreements with the representatives pursuant to which they may not, with limited exceptions and among other things, for a period of 180 days from the date of this prospectus, offer, sell or otherwise transfer or dispose of any of our securities, without the prior written consent of J.P. Morgan and Leerink Partners. The underwriters may permit our officers, directors, and other securityholders who are subject to the lock-up agreements to sell shares prior to the expiration of the lock-up agreements at any time in their sole discretion. See the section titled "Underwriting." Sales of these shares, or perceptions that they will be sold, could cause the trading price of our common stock to decline. After the lock-up agreements expire, up to an additional shares of common stock will be eligible for sale in the public market, of which shares will be held by directors, executive officers and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act of 1933, as amended, or the Securities Act, in each without giving effect to any potential purchases by such persons in this offering.

In addition, as of June 30, 2024, shares of common stock that are subject to outstanding options under our employee benefit plans will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements, and Rule 144 and Rule 701 under the Securities Act. If these additional shares of common stock are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

After this offering, the holders of shares of our outstanding common stock, or approximately % of our total outstanding common stock based on shares outstanding as of December 31, 2023, will be entitled to rights

with respect to the registration of their shares under the Securities Act, subject to the 180-day lock-up agreements described above. See the section titled "Description of capital stock—Registration rights." Registration of these shares under the Securities Act would result in the shares becoming freely tradable without restriction under the Securities Act, except for shares held by affiliates, as defined in Rule 144 under the Securities Act. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

We are an "emerging growth company" and a "smaller reporting company," and the reduced disclosure 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," or an EGC, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We are also a "smaller reporting company," as defined in Rule 12b-2 under the Securities Exchange Act of 1934, or the Exchange Act. We may remain an EGC until December 31, 2029, although if the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of any June 30 before that time or if we have annual gross revenues of $1.235 billion or more in any fiscal year, we would cease to be an EGC as of December 31 of the applicable year. We would also cease to be an EGC if we issue more than $1.0 billion of non-convertible debt over a three-year period. For so long as we remain an EGC, we are permitted and intend to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not EGCs. These exemptions include:

- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

Even after we no longer qualify as an EGC, we may continue to qualify as a smaller reporting company, which would allow us to take advantage of many of the same exemptions from disclosure requirements, including reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. In addition, if we are a smaller reporting company with less than $100.0 million in annual revenue, we would not be required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404. We would cease to be a smaller reporting company if the market value of our common stock that is held by non-affiliates exceeds $250.0 million and we had annual revenues in excess of $100.0 million or if the market value of our common stock that is held by non-affiliates exceeds $700.0 million, each as determined on an annual basis.

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

In addition, the JOBS Act permits an EGC 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 to take advantage of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or 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 such time that we either irrevocably elect to "opt out" of such extended transition period or no longer qualify as an EGC. We may choose to early adopt any new or revised accounting standards whenever such early adoption is permitted for private companies.

Provisions in our corporate charter documents and under Delaware law may have anti-takeover effects that could discourage an acquisition of our company by others, even if an acquisition would be beneficial to our stockholders, and may prevent attempts by our stockholders to replace or remove our current management.

Our amended and restated certificate of incorporation and our amended and restated bylaws, which will become effective prior to the completion of this offering, and Delaware law contain provisions that may have the effect of discouraging, delaying or preventing a change in control of our company or changes in our management that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These include provisions that:

- authorize "blank check" preferred stock, which could be issued by our board of directors without stockholder approval and may contain voting, liquidation, dividend and other rights superior to our common stock;
- create a classified board of directors whose members serve staggered three-year terms;
- specify that special meetings of our stockholders can be called only by our board of directors;
- prohibit stockholder action by written consent;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;
- provide that vacancies on our board of directors may be filled only by a majority of directors then in office, even though less than a quorum;
- provide that our directors may be removed only for cause;
- specify that no stockholder is permitted to cumulate votes at any election of directors;
- expressly authorize our board of directors to modify, alter or repeal our amended and restated bylaws; and
- require supermajority votes of the holders of our common stock to amend specified provisions of our amended and restated certificate of incorporation and amended and restated bylaws.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our management. 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 we are incorporated in the State of Delaware, we are governed by the provisions of Section 203 of the General Corporation Law of the State of Delaware, or 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.

Any provision of our amended and restated certificate of incorporation, amended and restated bylaws or Delaware law that has the effect of delaying or deterring a change in control could limit the opportunity for our stockholders to receive a premium for their shares of our common stock, and could also affect the price that some investors are willing to pay for our common stock.

Our amended and restated certificate of incorporation will designate specific courts as the sole and exclusive forum for certain claims or causes of action that may be brought by our stockholders, which could discourage lawsuits against us and our directors and officers.

Our amended and restated certificate of incorporation will provide that, subject to limited exceptions, the Court of Chancery of the State of Delaware (or, if, and only if, the Court of Chancery of the State of Delaware dismisses a Covered Claim (as defined below) for lack of subject matter jurisdiction, any other state or federal court in the State of Delaware that does have subject matter jurisdiction) will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for the following types of claims: (i) any derivative claim brought in our right, (ii) any claim asserting a breach of a fiduciary duty to us or the our stockholders owed by any of our current or

former directors, officers or other employees or stockholders, (iii) any claim against us arising pursuant to any provision of the DGCL, our amended and restated certificate of incorporation or amended and restated bylaws, (iv) any claim to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or amended and restated bylaws, (v) any claim against us governed by the internal affairs doctrine, and (vi) any other claim, not subject to exclusive federal jurisdiction and not asserting a cause of action arising under the Securities Act, brought in any action asserting one or more of the claims specified in clauses (a)(i) through (v) herein above, each, a Covered Claim. This provision would not apply to claims brought to enforce a duty or liability created by the Exchange Act.

Our amended and restated certificate of incorporation will further provide that the federal district courts of the U.S. of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. In addition, our amended and restated certificate of incorporation will provide that any person or entity purchasing or otherwise acquiring any interest in the shares of capital stock of the company will be deemed to have notice of and consented to these choice-of-forum provisions and waived any argument relating to the inconvenience of the forums in connection with any Covered Claim.

The choice of forum provisions to be contained in our amended and restated certificate of incorporation may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder. While the Delaware courts have determined that such choice of forum provisions are facially valid, it is possible that a court of law in another jurisdiction could rule that the choice of forum provisions to be contained in our amended and restated certificate of incorporation are inapplicable or unenforceable if they are challenged in a proceeding or otherwise, which could cause us to incur additional costs associated with resolving such action in other jurisdictions. The choice of forum provisions may also impose additional litigation costs on stockholders who assert that the provisions are not enforceable or invalid.

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 certain of our existing stockholders and their affiliated entities participate in this offering, such purchases would reduce the non-affiliate public float of our shares, meaning the number of shares of our common stock that are not held by officers, directors, and controlling stockholders. A reduction in the public float could reduce the number of shares that are available to be traded at any given time, thereby adversely impacting the liquidity of our common stock and depressing the price at which you may be able to sell shares of common stock purchased in this offering.

General risk factors

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.

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, Sarbanes-Oxley, as well as rules subsequently adopted by the SEC and Nasdaq to implement provisions of Sarbanes-Oxley, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and certain corporate governance practices. Further, pursuant to the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC has adopted additional rules and regulations in these areas, such as mandatory "say on pay" voting requirements that will apply to us when we cease to be an emerging growth company. 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. The increased costs will decrease our net income or increase our net loss, and may require us to reduce expenditures in other areas of our business. 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 comply with 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 these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition, and results of operations.

We are subject to U.S. and certain foreign export and import controls, sanctions, embargoes, anti-corruption laws, and anti-money laundering laws and regulations. We could face criminal liability and other serious consequences for violations, which could 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 Controls and anti-corruption and anti-money laundering laws and regulations, 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, the USA PATRIOT Act and other state and national anti-bribery and anti-money laundering laws in the countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, CROs, contractors and other collaborators and partners from authorizing, promising, offering, providing, soliciting, or receiving, directly or indirectly, improper payments or anything else of value to recipients in the public or private sector. We may engage third parties for clinical trials outside of the U.S., to sell our products abroad if we enter a commercialization phase, and/or to obtain necessary permits, licenses, patent registrations and other regulatory approvals. We have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities, and other organizations. We can be held liable for the corrupt or other illegal activities of our employees, agents, CROs, contractors, and other collaborators and partners, even if we do not explicitly authorize or have actual knowledge of such activities, and any training or compliance programs or other initiatives we undertake to prevent such activities may not be effective.

Any violations 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.

Furthermore, U.S. export control laws and economic sanctions prohibit the provision of certain products and services to countries, governments, and persons targeted by U.S. sanctions. U.S. sanctions that have been or may be imposed as a result of military conflicts in other countries may impact our ability to continue activities at future clinical trial sites within regions covered by such sanctions. If we fail to comply with export and import regulations and such economic sanctions, penalties could be imposed, including fines and/or denial of certain export privileges. These export and import controls and economic sanctions could also adversely affect our supply chain.

Unstable market and economic conditions and adverse developments with respect to financial institutions and associated liquidity risk may have serious adverse consequences on our business, financial condition, and stock price.

From time to time, the global credit and financial markets have experienced extreme volatility and disruptions, including severely diminished liquidity and credit availability, declines in consumer confidence, declines in economic growth, increases in unemployment rates, and uncertainty about economic stability. The financial markets and the global economy may also be adversely affected by the current or anticipated impact of military conflict, including the conflict between Russia and Ukraine and Israel and Hamas, terrorism, or other geopolitical events.

Sanctions imposed by the U.S. and other countries in response to such conflicts, including the one in Ukraine, may also 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. In addition, in 2023 the closures of financial institutions and their placement into receivership with the FDIC created bank-specific and broader financial institution liquidity risk and concerns. Future adverse developments with respect to specific financial institutions or the broader financial services industry may lead to market-wide liquidity shortages, impair the ability of companies to access near-term working capital needs, and create additional market and economic uncertainty. There can be no assurance that future credit and financial market instability and a deterioration in confidence in economic conditions will not occur. Our general business strategy may be adversely affected by any such economic downturn, liquidity shortages, volatile business environment or continued unpredictable and unstable market conditions. If the equity and credit markets deteriorate, or if adverse developments are experienced by financial institutions, it may cause short-term liquidity risk and may make any necessary debt or equity financing more difficult, more costly, more onerous with respect to financial and operating covenants and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, financial institutions, manufacturers, and other partners may be adversely affected by the foregoing risks, which could directly affect our ability to attain our operating goals on schedule and on budget.

Inflation could adversely affect our business and results of operations.

From 2021 to 2023, the U.S. economy experienced a material level of inflation. The impact of geopolitical developments, such as the conflicts in Ukraine and the Middle East may continue to increase uncertainty in the outlook of near-term and long-term economic activity, including whether inflation will continue and how long, and at what rate. Increases in inflation raise our costs for labor, materials and services and other costs required to grow and operate our business, and failure to secure these on reasonable terms may adversely impact our financial condition. Additionally, increases in inflation, along with the uncertainties surrounding geopolitical developments and global supply chain disruptions, have caused, and may in the future cause, global economic uncertainty and uncertainty about the interest rate environment, which may make it more difficult, costly or dilutive for us to secure additional financing. A failure to adequately respond to these risks could have a material adverse impact on our financial condition, results of operations or cash flows.

Changes in tax law may materially adversely affect our financial condition, results of operations and cash flows, or adversely impact the value of an investment in our common stock.

New income, sales, use or other tax laws, statutes, rules, regulations, or ordinances could be enacted at any time, or interpreted, changed, modified, or applied adversely to us, any of which could adversely affect our business operations and financial performance.

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

We are subject to certain reporting requirements of the Exchange Act. Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by us in reports we file or submit under the Exchange Act is accumulated and communicated to management, 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 or internal 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. 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 or insufficient disclosures due to error or fraud may occur and not be detected.

If securities or industry analysts do not publish research or reports or publish unfavorable research or reports 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, our business, our market, or our competitors. We do not currently have and may never obtain research coverage by securities and industry analysts. If no securities or industry analysts commence coverage of our company, the trading price for our stock would be negatively impacted. In the event we obtain securities or industry analyst coverage, if one or more of the analysts who covers us downgrades our stock, or if we fail to meet the expectations of one or more of these analysts, our stock price would likely decline. If one or more of these analysts ceases to cover us or fails to regularly publish reports on us, interest in our stock could decrease, which could cause our stock price or trading volume to decline.

If we fail to maintain proper and effective internal control over financial reporting, our ability to produce accurate and timely financial statements could be impaired, investors may lose confidence in our financial reporting, and the trading price of our common stock may decline.

Pursuant to Section 404 of Sarbanes-Oxley, our management will be required to report upon the effectiveness of our internal control over financial reporting beginning with the second annual report following this offering. When we lose our status as an EGC and do not otherwise qualify as a "smaller reporting company," our independent registered public accounting firm will be required to attest to the effectiveness of our internal control over financial reporting. The rules governing the standards that must be met for our management to assess our internal control over financial reporting are complex and require significant documentation, testing and possible remediation. To comply with the requirements of being a reporting company under the Exchange Act, we may need to upgrade our information technology systems; implement additional financial and management controls, reporting systems and procedures; and hire additional accounting and finance staff. If we or, if required, our auditors are unable to conclude that our internal control over financial reporting is effective, investors may lose confidence in our financial reporting and the trading price of our common stock may decline.

We cannot assure investors that there will not be material weaknesses or significant deficiencies in our internal control over financial reporting in the future. Any failure to maintain internal control over financial reporting could severely inhibit our ability to accurately report our financial condition, results of operations or cash flows. If we are unable to conclude that our internal control over financial reporting is effective, or if our independent registered public accounting firm determines we have a material weakness or significant deficiency in our internal control over financial reporting once that firm begins its Section 404 reviews, investors may lose confidence in the accuracy and completeness of our financial reports, the market price of our common stock could decline, and we could be subject to sanctions or investigations by Nasdaq, the SEC, or other regulatory authorities. Failure to remedy any material weakness in our internal control over financial reporting, or to implement or maintain other effective control systems required of public companies, could also restrict our future access to the capital markets.

As a public company, we may be at an increased risk of securities class action litigation.

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

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 forward-looking statements that involve substantial risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. All statements other than statements of historical fact contained in this prospectus, including statements regarding our strategy, future operations, future financial position, prospects, plans, objectives of management and expected growth, are forward-looking statements. These statements are based on our current beliefs, expectations and assumptions regarding our intentions, beliefs or current expectations concerning, among other things, the future of our business, future plans and strategies, our operational results and other future conditions. Forward-looking statements involve known and unknown risks, uncertainties and other important 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 the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “expect,” “plan,” “anticipate,” “could,” “intend,” “target,” “project,” “estimate,” “believe,” “predict,” “potential” or “continue” or the negative of these terms or other similar expressions intended to identify statements about the future, although not all forward-looking statements contain these identifying words. These forward-looking statements include, without limitation, statements about the following:

- the initiation, timing, progress, results and costs of our research and development programs and of our current and future preclinical studies and clinical trials of our product candidates, including statements regarding the timing of initiation and completion of studies or trials and related preparatory work, as well as the period during which the results of the trials are expected become available;
- the timing of our planned good laboratory practices toxicology studies and regulatory submissions, initiation of planned clinical trials and timing of expected clinical results for CMP-CPS-001 and CMP-SYNGAP programs, if applicable, and our other future product candidates;
- the timing of any submissions of filings for regulatory approval of, and our ability to obtain and maintain regulatory approvals for, CMP-CPS-001 and any other product candidates;
- our ability to identify patients with the diseases treated by our product candidates, and to enroll patients in trials;
- our expectations regarding the size of the patient populations, market acceptance and opportunity for and clinical utility of our product candidates, if approved for commercial use;
- our reliance on third party manufacturing partners to comply with significant regulations with respect to manufacturing our products;
- our expectations regarding the scope of any approved indication for CMP-CPS-001 or any other product candidate;
- our ability to successfully commercialize our product candidates, if approved;
- our ability to leverage our RAP Platform to identify and develop future product candidates;
- our estimates of our expenses, ongoing losses, future revenue, capital requirements and our need for or ability to obtain additional funding before we can expect to generate any revenue from product sales;
- our ability to establish or maintain strategic collaborations or arrangements, including potential business development opportunities and potential licensing partnerships, and our ability to attract collaborators with development, regulatory and commercialization expertise;
- our ability to identify, recruit and retain key personnel;
- our reliance upon intellectual property licensed from third parties and our ability to obtain such licenses on commercially reasonable terms or at all;

- our ability to protect and enforce our intellectual property position for our product candidates, and the scope of such protection;
- our financial performance;
- our anticipated use of the net proceeds to us from this offering and the sufficiency of our existing cash and cash equivalents and the proceeds from this offering to fund our future operating expenses and capital expenditure requirements;
- our competitive position and the development of and projections relating to our competitors or our industry;
- our estimates regarding future expenses and needs for additional financing;
- the impact of laws and regulations;
- general economic, industry, geopolitical and market conditions, such as military conflict or war, inflation and financial institution instability, or pandemic or epidemic disease outbreaks, many of which are beyond our control; and
- our expectations regarding the time during which we will be an emerging growth company and smaller reporting company under the JOBS Act.

Although we base these forward-looking statements on assumptions that we believe are reasonable when made, we caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from those made in or suggested by the forward-looking statements contained in this prospectus. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this prospectus, those results or developments may not be indicative of results or developments in subsequent periods.

Given these risks and uncertainties, you are cautioned not to place undue reliance on these forward-looking statements. Any forward-looking statement that we make in this prospectus speaks only as of the date of such statement. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless specifically expressed as such, and should only be viewed as historical data. 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.

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 investors are cautioned not to unduly rely upon these statements.

You should carefully read this prospectus and the documents that we have filed 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 what we expect. We qualify all of the forward-looking statements in this prospectus by these cautionary statements.

Market and industry data

Unless otherwise indicated, market and industry data contained in this prospectus, including potential market opportunities, is based on our management's estimates and research, as well as industry and general publications and research and studies conducted by third parties. Although we believe that the information from these third-party publications, research and studies included in this prospectus is reliable, and we are responsible for the accuracy of such information, neither we nor the underwriters have independently verified the accuracy or completeness of this information. Management's estimates are derived from publicly available information, their knowledge of our industry and their assumptions based on such information and knowledge, which we believe to be reasonable. This data involves a number of assumptions and limitations and the industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the sections titled "Risk factors" and "Special note regarding forward-looking statements." These and other factors could cause our future performance to differ materially from our assumptions and estimates.

Use of proceeds

We estimate that the net proceeds to us from the issuance and sale of shares of our common stock in this offering will be approximately $ million (or approximately $ million if the underwriters exercise in full their option to purchase additional shares), assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting the 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, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease, as applicable, the net proceeds to us from this offering by approximately $ 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 the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of 1,000,000 in the number of shares we are offering would increase or decrease the net proceeds to us from this offering by $ million, respectively, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us, assuming the assumed initial public offering price stays the same. We do not expect that a change in the offering price or the number of shares by these amounts would have a material effect on our intended uses of the net proceeds from this offering, although it may impact the amount of time prior to which we may need to seek additional capital.

As of June 30, 2024, we had cash and cash equivalents of $12.6 million. We currently intend to use the net proceeds from this offering, together with our existing cash and cash equivalents, as follows:

- approximately $ million to advance the clinical development of CMP-CPS-001 for the treatment of UCDs, including through the completion of the SAD and MAD portions of our current Phase 1 clinical trial;
- approximately $ million for the advancement of our CMP-SYNGAP program for the treatment of SYNGAP1-related disorders, including the designation of a development candidate and initiation of GLP toxicology studies;
- approximately $ million for the expansion of our RAP Platform, including advancement of the research and development of our other preclinical and discovery programs; and
- the remainder for working capital and other general corporate purposes, including the additional costs associated with being a public company.

We may also use a portion of the net proceeds from this offering to in-license, acquire or invest in products, technologies, or businesses, although we have no current agreements, commitments or understandings to do so. The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our preclinical development efforts, our operating costs and other factors described under “Risk factors” in this prospectus.

Based on our current operating plan, we believe that the anticipated net proceeds from this offering, together with our existing cash and cash equivalents as of June 30, 2024, will be sufficient to fund our operating expenses and capital expenditure requirements for from the date of this prospectus. This estimate and our expectation regarding the sufficiency of the net proceeds from this offering are based on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect. We do not expect that the anticipated net proceeds from this offering, together with our existing cash and cash equivalents, will be sufficient for us to fund any of our product candidates through regulatory approval, and we will need to raise substantial additional capital to complete the development and commercialization of our product candidates. We may satisfy our future cash needs through the sale of equity securities, debt financings, working capital lines of credit, corporate collaborations or license agreements, grant funding, interest income earned on invested cash balances or a combination of one or more of these sources.

This anticipated use of net proceeds from this offering and our existing cash and cash equivalents represents our current intentions based upon our present plans and business conditions, which could change in the future as

our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development, the status of and results from clinical and preclinical trials, the timing and outcome of any regulatory submissions, as well as any collaborations that we may enter into with third parties for the development of product candidates developed using our RAP Platform and any other product candidates we develop, and any unforeseen cash needs.

Our management will have broad discretion in the application of the net proceeds from this offering, and investors will be relying on the judgment of our management regarding the application of those net proceeds. The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business, and we may find it necessary or advisable to use the net proceeds from this offering for other purposes. Pending their use, we plan to invest the net proceeds from this offering in short-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

Dividend policy

We have never declared or paid, and do not anticipate declaring or paying, in the foreseeable future, any cash dividends on our capital stock. We currently intend to retain all available funds and any future earnings, if any, to support our operations and finance the growth and development of our business. Any future determination related to our dividend policy will be made at the discretion of our board of directors and will depend upon, among other factors, our results of operations, financial condition, capital requirements, contractual restrictions, business prospects and other factors our board of directors may deem relevant. Our ability to pay cash dividends on our capital stock in the future may also be limited by the terms of any preferred securities we may issue or agreements governing any indebtedness we may incur.

Capitalization

The following table sets forth our cash and cash equivalents 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 of the outstanding shares of our convertible preferred stock as of June 30, 2024 into an aggregate of 130,648,426 shares of our common stock, based on an 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, immediately prior to the closing of this offering, and (ii) the filing and effectiveness of our Restated Charter, which will be effective immediately prior to the completion of this offering; and
- on a pro forma as adjusted basis to give further effect our 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 price range set forth on the cover page of this prospectus, after deducting the estimated underwriting fees and commissions and estimated offering expenses payable by us.

The pro forma as adjusted information is illustrative only and our capitalization following the completion of this offering will depend on the actual initial public offering price and other terms of this offering determined at pricing. You should read the information in this table in conjunction with our financial statements and the related notes appearing at the end of this prospectus, the section of this prospectus titled “Management’s discussion and analysis of financial condition and results of operations” and other financial information contained in this prospectus.

	As of June 30, 2024		
(in thousands, except share and per share data)	**Actual**	**Pro forma**	**Pro forma as adjusted(1)**
Cash and cash equivalents	$ 12,607	$	$
Preferred stock warrant liability	$ 2		
Series A Prime convertible preferred stock, $0.0001 par value; 68,173,692 shares authorized, 62,389,791 shares issued and outstanding, actual; no shares authorized, issued or outstanding pro forma and pro forma as adjusted	61,952		
Series B convertible preferred stock, $0.0001 par value; 81,499,592 shares authorized, 68,258,635 shares issued and outstanding, actual; no shares authorized, issued or outstanding pro forma and pro forma as adjusted	100,195		
Stockholders’ (deficit) equity:			
Preferred stock, $0.0001 par value; no shares authorized, issued or outstanding, actual; shares authorized and no shares issued or outstanding, pro forma and pro forma as adjusted	—		
Common stock, $0.0001 par value; 210,000,000 shares authorized, 11,521,191 shares issued and 5,506,768 shares outstanding, actual; shares authorized, shares issued and outstanding, pro forma; shares authorized, shares issued and outstanding, pro forma as adjusted	1		
Additional paid-in capital	37,875		
Accumulated (deficit) equity	(184,990)		
Total stockholders’ (deficit) equity	$ (147,114)		
Total capitalization	$ 15,035	$	$

(1) Each $1.00 increase or 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 or decrease, as applicable, the pro forma as adjusted amount of each of cash and cash equivalents,

additional paid-in capital, total stockholders' (deficit) equity and total capitalization 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 the estimated underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, each increase or decrease of 1,000,000 shares in the number of shares offered by us at the assumed initial public offering price per share of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase or decrease the pro forma as adjusted amount of each of additional paid-in capital, total stockholders' (deficit) equity and total capitalization by approximately $ million, assuming no change in the assumed initial public offering price per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise in full their option to purchase additional shares, our pro forma as adjusted cash and cash equivalents, additional paid-in capital, total stockholders' (deficit) equity and total capitalization as of June 30, 2024 would be $ million, $ million, $ million and $ million, respectively.

The information above 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. The number of shares of our common stock to be outstanding after this offering on a pro forma and pro forma as adjusted basis is based on 136,155,194 shares of our common stock outstanding as of June 30, 2024, after giving effect to the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 130,648,426 shares of our common stock, based on an 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, immediately prior to the completion of this offering, and excludes:

- 28,044,498 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2024 pursuant to our 2016 Plan, with a weighted-average exercise price of $0.57 per share;
- 10,746,586 shares of our common stock reserved for future issuance under the 2016 Plan as of June 30, 2024, which shares will cease to be available for issuance at the time our 2024 Plan becomes effective in connection with this offering;
- 1,602 shares of our common stock issuable upon the exercise of warrants outstanding at June 30, 2024 at a weighted-average exercise price of $0.9998556 per share;
- shares of our common stock reserved for future issuance under the 2024 Plan, which will become effective in connection with this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan; and
- shares of our common stock reserved for future issuance under our ESPP, which will become effective in connection with this offering, 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 immediately diluted 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 after this offering.

As of June 30, 2024, we had a historical net tangible book value (deficit) of $(148.9) million, or $(27.03) per share of common stock. Our historical net tangible book value (deficit) per share represents total tangible assets less total liabilities and convertible preferred stock, 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 of the outstanding shares of our convertible preferred stock into an aggregate of 130,648,426 shares of our common stock immediately prior to the closing of this offering (based on 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), as if such conversions had occurred on , 2024. 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 common stock in this offering at an 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, and after deducting the 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 net tangible book value of $ per share to our existing stockholders and immediate dilution of $ per share to new investors participating in this offering. We determine dilution by subtracting the pro forma as adjusted net tangible book value per share after this offering from the assumed initial public offering price per share paid by new investors.

The following table illustrates this dilution on a per share basis (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	$ (27.03)	
Pro forma increase in net tangible book value (deficit) per share attributable to the pro forma transactions described above	$ —	
Pro forma net tangible book value per share as of June 30, 2024	—	
Increase in pro forma as adjusted 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 participating 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 or 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 or decrease, as applicable, the pro forma as adjusted net tangible book value by approximately $ million, or approximately $ per share, and increase or decrease, as applicable, the dilution per share to investors participating in this offering by approximately $, 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 the estimated underwriting discounts and commissions and estimated offering expenses payable by us. An increase of 1,000,000 shares in the number of shares we are offering would increase the

pro forma as adjusted net tangible book value per share after this offering by $ and decrease the dilution per share to new investors participating in this offering by $, assuming no change in the assumed initial public offering price per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. A decrease of 1,000,000 shares in the number of shares we are offering would decrease the pro forma as adjusted net tangible book value per share after this offering by $ and increase the dilution per share to new investors participating in this offering by $, assuming no change in the assumed initial public offering price per share and after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

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

The following table sets forth, on a pro forma as adjusted basis as of June 30, 2024, the number of shares of common stock purchased from us, the total consideration paid to us and the average price per share paid by existing stockholders and to be paid by new investors purchasing shares of common stock in this offering at an 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, before deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

	Total shares		Total consideration		Weighted average price per share
	Number	Percent	Number	Percent	
Existing stockholders	$	%	$	%	
New Investors		%	$	%	
Total		100%	$	100%	

The table above assumes no exercise by the underwriters of their option to purchase additional shares of our common stock in this offering. If the underwriters were to exercise in full their option to purchase additional shares from us, the number of shares of common stock held by existing stockholders would be reduced to % of the total number of shares of common stock to be outstanding upon completion of this offering, and the number of shares of common stock held by new investors participating in this offering will be increased to % of the total number of shares of our common stock to be outstanding upon completion of the offering.

Each $1.00 increase or 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 or decrease, as applicable, the total consideration paid by new investors 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. We may also increase or decrease the number of shares we are offering. Similarly, each increase or decrease of 1,000,000 in the number of shares offered by us would increase or decrease, as applicable, total consideration paid by new investors by approximately $ million, assuming no change in the assumed initial public offering price.

The foregoing tables and calculations (other than historical net tangible book value) are based on the number of shares of our common stock outstanding as of June 30, 2024, after giving effect to the automatic conversion of all of the outstanding preferred shares of our convertible preferred stock into an aggregate of 130,648,426 shares of our common stock upon the closing of this offering (based on 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), as if such conversions had occurred on June 30, 2024, and excludes:

- 28,044,498 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2024 pursuant to our 2016 Plan, with a weighted-average exercise price of $0.57 per share;

- 10,746,586 shares of our common stock reserved for future issuance under the 2016 Plan as of June 30, 2024, which shares will cease to be available for issuance at the time our 2024 Plan becomes effective in connection with this offering;
- 1,602 shares of our common stock issuable upon the exercise of warrants outstanding at June 30, 2024 at a weighted-average exercise price of $0.9998556 per share;
- shares of our common stock reserved for future issuance under the 2024 Plan, which will become effective in connection with this offering, as well as any automatic increases in the number of shares of common stock reserved for future issuance under the 2024 Plan; and
- shares of our common stock reserved for future issuance under our ESPP, which will become effective in connection with this offering, 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 stock options or warrants are exercised, new stock options or other equity awards are issued under our equity incentive plan or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering. 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

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and related notes appearing elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, and includes forward-looking statements that involve risks and uncertainties. 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 contained in the following discussion and analysis. See also the section titled "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.

We are a clinical-stage biopharmaceutical company pioneering the discovery and development of regulatory RNA-based therapeutics with the goal of upregulating gene expression and restoring healthy protein levels to treat a broad range of genetic diseases. Regulatory RNAs, or regRNAs, play a central role in the regulation of every protein-coding gene by contributing to gene activation and suppression. Our approach is designed to amplify messenger RNA, or mRNA, expression by harnessing the power of regRNAs that form localized complexes with transcription factors and regulate gene expression. Our proprietary RNA Actuating Platform, or RAP Platform, allows us to rapidly and systematically identify and characterize the active regulatory elements controlling every expressed gene and tens of thousands of druggable enhancer and promoter regRNA sequences that control protein-coding genes. Once a disease-associated target gene is identified, we apply our RAP Platform to identify the controlling regRNA and rapidly generate novel antisense oligonucleotide, or ASO, candidates, which we also refer to as RNA Actuators. These ASOs are designed to bind to the identified regRNA and amplify the expression of the target gene in a specific and controllable way. We are initially focused on metabolic and central nervous system diseases with validated disease biology, and we believe our RAP Platform allows us to address a broad range of genetic diseases in which a modest increase in protein expression has the potential to be clinically meaningful.

Since our inception in 2015, we have focused substantially all of our resources primarily on developing our RAP Platform, identifying, developing and progressing our product candidates through preclinical and clinical development, organizing and staffing our company, research and development activities, establishing and protecting our intellectual property portfolio, and raising capital. To date, we have primarily funded our operations with proceeds from the sale of convertible preferred stock and revenues from our license and collaboration agreements. Through June 30, 2024, we have received gross proceeds of $188.3 million from the sale of our convertible preferred stock. In addition, through June 30, 2024, we have recognized $17.4 million in research collaboration and license revenue through our development and license agreements. Our ability to generate any product revenue and, in particular, our ability to generate product revenue sufficient to achieve profitability, will depend on the successful development and eventual commercialization of product candidates.

We have incurred significant operating losses and negative cash flows from operations since our inception. Our net losses were $49.3 million and $44.2 million for the years ended December 31, 2023 and 2022, respectively, and were $25.0 million and $24.6 million for the six months ended June 30, 2024 and 2023, respectively. As of June 30, 2024, we had an accumulated deficit of $185.0 million. Substantially all of our net losses have resulted from costs incurred in connection with our research and development programs and, to a lesser extent, from general and administrative costs associated with our operations. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical trials and preclinical studies, our other research and development activities and capital expenditures, and the timing and amount of any milestone or royalty payments due under our existing or future license or collaboration agreements. In addition, following the closing of this offering, we expect to incur additional costs associated with operating as a public company, including significant legal, audit, accounting, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer liability insurance costs, investor and public relations costs, and other expenses that we did not incur as a private company. If we obtain regulatory approval for our product candidates, we expect to incur significant expenses related to developing our

commercialization capability to support product sales, marketing and distribution. We anticipate that our expenses will increase substantially if and as we:

- advance our lead product candidate, CMP-CPS-001, through clinical trials;
- finalize preclinical development for our program for SYNGAP1-related disorders;
- conduct preclinical studies and clinical trials of any future product candidates;
- expand the capabilities of our RAP Platform and seek to identify and develop additional product candidates;
- seek marketing approvals for any product candidates that successfully complete clinical trials;
- obtain, expand, maintain, defend and enforce our intellectual property portfolio;
- hire additional clinical, regulatory and scientific personnel;
- contract with manufacturing sources for preclinical and clinical development of any future product candidates we may develop and commercial supply with respect to any such product candidates that receive regulatory approval;
- ultimately establish a sales, marketing and distribution infrastructure to commercialize any products for which we may obtain marketing approval; and
- add operational, legal, compliance, financial and management information systems and personnel to support our research, product development and future commercialization efforts, as well as to support our operations as a public company.

Because of the numerous risks and uncertainties associated with the development of therapeutics, we are unable to accurately predict the timing or amount of increased expenses and when, or if, we will be able to achieve or maintain profitability. Even if we are able to generate 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 may be forced to reduce or terminate our operations.

We do not have any products approved for sale and have not generated any revenue from product sales. We will not generate revenue from product sales unless and until we successfully complete clinical development and obtain regulatory approval for our current and any future product candidates, which we expect will take a number of years or may never occur. As a result, we will need substantial additional funding in addition to the net proceeds from this offering to support our continuing operations and pursue our growth strategy. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through equity offerings, debt financings, or other capital sources, including current or potential future collaborations, licenses, and other similar arrangements. However, we may be unable to raise additional funds or enter into such other agreements or arrangements when needed on favorable terms, or at all. If we fail to raise capital or enter into such agreements or arrangements as, and when needed, we may delay, limit, reduce or terminate our 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, or even cease operations.

As of June 30, 2024, we had cash and cash equivalents of $12.6 million. Based on our current operating plan, we estimate that our existing cash and cash equivalents as of the date of this prospectus, together with the net proceeds from this offering, will be sufficient to fund our projected operating expenses and capital expenditure requirements through at least . However, we have based this estimate on assumptions that may prove to be wrong, and our operating plan may change as a result of many factors currently unknown to us. In addition, we could utilize our available capital resources sooner than we expect. See the sections titled "—Liquidity and capital resources" and "Risk factors—Risks related to our financial position and need for additional capital" included elsewhere in this prospectus.

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We rely, and expect to continue to rely, on third parties for clinical supplies as well as commercial supplies if we obtain marketing approval. In addition, we rely on third parties to package, label, store, and distribute our clinical supply

and we intend to rely on third parties to conduct the same activities for our commercial products if we obtain regulatory approval. We believe that this strategy allows us to maintain a more efficient infrastructure by eliminating the need for us to invest in our own manufacturing facilities, equipment, and personnel while also enabling us to focus our expertise and resources on the development of product candidates and continued enhancement of our RAP Platform.

Collaboration and license agreements

Below is a summary of the key terms and financial statement impact of certain of our license and collaboration agreements. For a more detailed description of these agreements, see the section titled “Business—License and collaboration agreements.”

In-license agreements

Whitehead Institute for Biomedical Research

In October 2019, we entered into a patent license agreement with the Whitehead Institute for Biomedical Research, or the Whitehead Institute, which was subsequently amended on December 14, 2021, or the Whitehead First Amendment, and on November 7, 2023, or the Whitehead Second Amendment. Under the agreement, we were granted a worldwide, royalty-bearing, sublicensable license under certain patent rights owned or controlled by the Whitehead Institute. As part of the agreement, we paid an initial $0.1 million license issuance fee, and de minimis additional fees in connection with each of the Whitehead First Amendment and Whitehead Second Amendment that were recorded as research and development expense in our consolidated statement of operations and comprehensive loss. We are also obligated to pay annual license maintenance fees for the term of the agreement, pursuant to which we have paid an aggregate of $0.19 million through June 30, 2024. In addition, we are obligated to pay certain filing, prosecution and maintenance fees with respect to certain patent rights licensed to us under the agreement, pursuant to which we have paid an aggregate of $0.26 million through June 30, 2024. We are obligated to pay potential development milestone payments of up to an aggregate of $1.9 million under the terms of the agreement upon the achievement of certain specified contingent events. In addition, if we successfully commercialize a product under the agreement, we are also obligated to pay tiered royalties at percentage rates ranging from less than one percent to the mid-single digits of net sales or of running royalties of net sales, subject to specified reductions, until either the last-to-expire valid claim of a Whitehead Institute patent covering the product or seven years after the first commercial sale, in each case on a product-by-product and country-by-country basis. We incurred license maintenance and amendment issuance fees owed to the Whitehead Institute of $0.03 million during each of the six months ended June 30, 2024 and 2023, respectively, and $0.08 million and $0.04 million during the years ended December 31, 2023 and 2022, respectively, under the amended agreement. These amounts are recorded in our research and development expense in our consolidated statement of operations and comprehensive loss.

Children’s Medical Center Corporation

In April 2018, we entered into a development and license agreement, or the CMCC Agreement, with Children’s Medical Center Corporation, or the CMCC. The agreement allows us to use the proprietary intellectual property of the CMCC to conduct research, development and commercialization of products utilizing CMCC’s proprietary intellectual property in return for specified payments. The proprietary intellectual property licensed pursuant to this agreement is related to certain legacy programs we are not pursuing and was subsequently sublicensed to Fulcrum Therapeutics, Inc., or Fulcrum, as described below. As part of the CMCC Agreement, we issued a total of 169,624 shares of common stock to CMCC and certain of its affiliates based on the fair value of the common stock on the date of issuance.

We are obligated to pay potential development milestone payments under the terms of the CMCC Agreement of up to $7.7 million for the first licensed target, $3.9 million for the second licensed target and $1.9 million for the third licensed target upon the achievement of certain specified contingent events. If commercial sales of a licensed product commence, we will pay CMCC royalties at percentage rates ranging in the low- to mid-single

digits on net sales of licensed products in countries where such product is protected by patent rights. We incurred $0.03 million of royalties owed to CMCC in both 2023 and 2022 under the CMCC Agreement and recorded the amounts in research and development expense in the consolidated statement of operations and comprehensive loss. For each of the six months ended June 30, 2024 and 2023, we incurred $0.02 million of royalties owed to CMCC, which are recorded in research and development expense in the condensed consolidated statement of operations and comprehensive loss. Further, under the terms of the CMCC Agreement, we are required to pay 10% of any upfront payment received under a sublicensing agreement entered into prior to the initiation of the first investigational new drug study. As such, we recorded $0.04 million of sublicense costs for the year ended December 31, 2023, which is presented in our research and development expenses on our consolidated statements of operations and comprehensive loss. No such sublicense costs were recorded during the six months ended June 30, 2024 and 2023.

Out-license agreements

Fulcrum Therapeutics, Inc.

In July 2023, we entered into a license agreement with Fulcrum. Under this license agreement, we granted an exclusive license related to our related intellectual property and granted a non-exclusive sublicense for the intellectual property obtained through the CMCC Agreement. In exchange for the license rights, Fulcrum paid us a $0.35 million upfront payment. In the event that Fulcrum achieves development and commercial milestones, Fulcrum will be obligated to pay us one-time milestone payments ranging from $1.0 million to $20.0 million (with respect to a Tier 1 Product, as defined in the agreement) or $0.6 million to $12.0 million (with respect to a Tier 2 Product, as defined in the agreement), depending on the milestone achieved. In addition, this license agreement includes both potential nominal minimum annual royalty payments as well as sales-based royalties upon commercialization of up to the low-double digits.

During the year ended December 31, 2023, we recorded $0.35 million in research and collaboration revenue pursuant to this out-license agreement with Fulcrum. No such revenue was recorded during each of the six months ended June 30, 2024 and 2023 under the out-license agreement with Fulcrum.

Collaborative arrangement

Eli Lilly and Company

In July 2023, we executed a Material Transfer Agreement, or MTA, with Eli Lilly and Company, or Eli Lilly. As part of the MTA, we and Eli Lilly agreed to perform research and development activities to generate up to three ASOs in accordance with a prescribed workplan. For the year ended December 31, 2023, we received $0.4 million from Eli Lilly related to the MTA. We and Eli Lilly are jointly overseeing the research and development activities under the MTA. During the six months ended June 30, 2024 and the year ended December 31, 2023, we recorded $0.2 million and $0.5 million, respectively, as a reduction in research and development expense in the consolidated statement of operations and comprehensive loss. Additionally, we had an unbilled receivable of $0.1 million recorded within prepaid expenses and other current assets on our consolidated balance sheet as of June 30, 2024 and December 31, 2023.

Components of our results of operations

Revenue

For the year ended December 31, 2023, we have recognized $0.35 million in research collaboration and license revenue through our collaboration and license agreements. We did not recognize any research collaboration and license revenue during any of the six months ended June 30, 2024 and 2023 and the year ended December 31, 2022. We have not generated any revenue from the sale of products, however, and do not expect to generate any revenue from the sale of products in the foreseeable future, if at all. If our or our collaborators' development efforts for product candidates and any future product candidates are successful and result in regulatory

approval, we may generate revenue in the future from product sales, payments from existing or potential future collaboration or license agreements with third parties, or any combination thereof.

Operating expenses

Our operating expenses consist of (i) research and development, or R&D, expenses and (ii) general and administrative expenses.

Research and development expenses

Research and development expenses consist primarily of external and internal costs incurred in performing clinical and preclinical development activities.

Our R&D expenses consist of:

- external costs incurred under agreements with contract research organizations, or CROs, contract manufacturing organizations, or CMOs, consultants and other third parties to conduct and support our clinical trials and preclinical studies;
- internal costs, including R&D personnel-related expenses such as salaries and stock-based compensation and benefits, as well as allocated facilities costs and depreciation; and
- costs associated with our licensing activities.

We expense R&D costs as incurred. Certain third-party costs for R&D activities are recognized based on an evaluation of the progress to completion of specific tasks using information and data provided to us by our management and scientific personnel, vendors and third-party service providers. Non-refundable advance payments for goods and services that will be used over time for R&D are deferred and capitalized as R&D prepaid expenses on our consolidated balance sheets. The capitalized amounts are recognized as an expense as the goods are delivered or as the related services are performed. Since our inception, substantially all of our external costs were related to the development of product candidates. We use internal resources for platform development, early pipeline discovery, preclinical development, management of clinical development activities, technical operations and oversight of manufacturing partners. We do not track our research and development expenses on a program-by-program basis. Our third-party research and development expenses consist primarily of fees paid to outside consultants, CROs, CMOs and research laboratories in connection with our preclinical development, process development, manufacturing and clinical development activities. Our other R&D costs are internal costs primarily associated with our discovery efforts, laboratory supplies, and facilities, including depreciation that are deployed across multiple programs.

Although R&D activities are central to our business model, the successful development of any future product candidates is highly uncertain. There are numerous factors associated with the successful development of any product, including future trial design and various regulatory requirements, many of which cannot be determined with accuracy at this time based on our stage of development. In addition, future regulatory factors beyond our control may impact our clinical development programs. 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 longer duration of later-stage clinical trials. As a result, we expect our R&D expenses will increase substantially in connection with our ongoing and planned clinical and preclinical development activities in the near term and in the future. At this time, we cannot accurately estimate or know the nature, timing and costs of the efforts that will be necessary to complete the preclinical and clinical development of our current product candidates and any future product candidates. Our future R&D expenses may vary significantly based on a wide variety of factors such as:

- the number and scope, rate of progress, expense and results of our clinical trials and preclinical studies and any future product candidates we may choose to pursue, including any modifications to clinical development plans based on feedback that we may receive from regulatory authorities;
- per patient trial costs;

- the number of trials required for approval;
- the number of sites included in the trials;
- the countries in which the trials are conducted;
- the length of time required to enroll eligible patients;
- the number of patients that participate in the trials;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- the potential additional safety monitoring requested by regulatory agencies;
- the duration of patient participation in the trials and follow-up;
- the cost and timing of manufacturing clinical supply;
- the extent of changes in government regulation and regulatory guidance;
- the timing, receipt, and terms of any approvals from applicable regulatory authorities; and
- the extent to which we establish additional collaboration, license, or other arrangements.

A change in the outcome of any of these variables with respect to the development of our product candidates or any future product candidates 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 personnel-related expenses such as salaries and stock-based compensation and benefits for our personnel in executive, legal, finance and accounting, human resources and other administrative functions. General and administrative expenses also include legal fees relating to patent and corporate matters and professional fees paid for accounting, auditing, consulting and tax services, as well as facilities-related costs not otherwise included in R&D expenses and other costs such as insurance costs and travel expenses.

We anticipate our general and administrative expenses will increase substantially in the future as we expand our operations, including increasing our headcount to support our continued R&D activities and continue to advance the development of our product candidates. We also anticipate we will incur increased accounting, audit, legal, regulatory, compliance, director and officer insurance, and investor and public relations expenses associated with operating as a public company.

Other income (expense), net

Interest income

Interest income relates to interest earned on our invested cash and cash equivalent balances. We expect our interest income will increase as we invest the cash received from the net proceeds from this offering.

Other (expense)

Other (expense) consists of miscellaneous items, such as foreign exchange gains and losses and other insignificant amounts.

Comparison of the six months ended June 30, 2024 and 2023

The following table summarizes our results of operations for the six months ended June 30, 2024 and 2023 (in thousands):

	Six months ended June 30,		
	2024	2023	Change ($)
Operating expenses:			
Research and development	$ 19,129	$ 20,136	$ (1,007)
General and administrative	6,408	5,930	478
Total operating expenses	25,537	26,066	(529)
Loss from operations	(25,537)	(26,066)	529
Other income (expense), net:			
Interest income	626	1,550	(924)
Other expense	(117)	(90)	(27)
Total other income (expense), net	509	1,460	(951)
Net loss and comprehensive loss	$ (25,028)	$ (24,606)	$ (422)

Research and development expenses

The following table summarizes our R&D expenses for the six months ended June 30, 2024 and 2023 (in thousands):

	Six months ended June 30,		
	2024	2023	Change ($)
Clinical and pre-clinical expenses	$ 8,518	$ 9,129	$ (611)
Personnel-related expenses	6,256	7,388	(1,132)
Professional fees	1,107	755	352
Facility-related and other expenses	3,248	2,864	384
Total research and development expenses	$ 19,129	$ 20,136	$ (1,007)

Research and development expenses were $19.1 million for the six months ended June 30, 2024 compared to $20.1 million for the six months ended June 30, 2023. The decrease of $1.0 million in R&D expenses for the six months ended June 30, 2024 as compared to the prior period was primarily due to a decrease of $1.1 million in workforce-related expenses and a $0.6 million decrease in preclinical contract research spend, offset in part by an increase of $0.3 million in lab operations and information technology expenses, and an increase of $0.4 million in professional and consulting fees associated with preclinical, regulatory and clinical affairs and continued development of our lead product candidate.

General and administrative expenses

The following table summarizes our general and administrative expenses for the six months ended June 30, 2024 and 2023 (in thousands):

	Six months ended June 30,		
	2024	2023	Change ($)
Personnel-related expenses	$ 3,558	$ 3,471	$ 87
Professional and consultant fees	1,901	1,437	464
Facilities-related fees and other related costs	949	1,022	(73)
Total general and administrative expenses	$ 6,408	$ 5,930	$ 478

General and administrative expenses were $6.4 million for the six months ended June 30, 2024 compared to $5.9 million for the six months ended June 30, 2023. The increase of $0.5 million in general and administrative expenses for the six months ended June 30, 2024 as compared to the prior period was primarily due to an increase of $0.1 million related to stock-based compensation and an increase in accounting and consulting fees and fees paid to enforce patents of $0.5 million, offset by a decrease of $0.1 million in facilities fees and other related costs due to lease incentive amortization against lease expense.

Other income (expense), net

Other income (expense), net was $0.5 million for the six months ended June 30, 2024 compared to $1.5 million for the six months ended June 30, 2023. The decrease of $1.0 million was primarily due to a decrease in interest income.

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,		
	2023	2022	Change ($)
Revenue			
Research and collaboration revenue	$ 350	$ —	$ 350
Operating expenses			
Research and development	$ 40,616	$ 34,771	$ 5,845
General and administrative	11,613	10,230	1,383
Total operating expenses	52,229	45,001	7,228
Loss from operations	(51,879)	(45,001)	(6,878)
Other income (expense), net			
Interest income	2,808	904	1,904
Other expense	(220)	(95)	(125)
Total other income, net	2,588	809	1,779
Net loss and comprehensive loss	$ (49,291)	$ (44,192)	$ (5,099)

Research and collaboration revenue

Research and collaboration revenue was $0.35 million for the year ended December 31, 2023 compared to $0 for the year ended December 31, 2022. The increase of $0.35 million was due to revenue generated from the sublicense agreement with Fulcrum.

Research and development expenses

The following table summarizes our R&D expenses for the years ended December 31, 2023 and 2022 (in thousands):

	Year ended December 31,		
	2023	2022	Change ($)
Clinical and preclinical expenses	$ 19,841	$ 19,750	$ 91
Personnel-related expenses	14,715	11,050	3,665
Professional fees	1,324	509	815
Facility-related and other expenses	4,736	3,462	1,274
Total research and development expenses	$ 40,616	$ 34,771	$ 5,845

Research and development expenses were $40.6 million for the year ended December 31, 2023 compared to $34.8 million for the year ended December 31, 2022. The increase of $5.8 million in R&D expenses for the year ended December 31, 2023 was primarily due an increase of $3.7 million in personnel-related expenses due to increased average headcount and increased stock option grant activity, an increase of $0.7 million in depreciation associated with new property and equipment purchases, an increase of $0.8 million in professional and consulting fees associated with preclinical, regulatory and clinical affairs and continued development of our lead product candidate, and an increase of $0.6 million in lab operations and information technology expenses.

General and administrative expenses

The following table summarizes our general and administrative expenses for the years ended December 31, 2023 and 2022 (in thousands):

	Year ended December 31,		
	2023	2022	Change ($)
Personnel-related expenses	$ 6,909	$ 5,378	$ 1,531
Professional and consultant fees	2,670	2,926	(256)
Facilities, fees and other related costs	2,034	1,926	108
Total general and administrative expenses	$ 11,613	$ 10,230	$ 1,383

General and administrative expenses were $11.6 million for the year ended December 31, 2023 compared to $10.2 million for the year ended December 31, 2022. The increase of $1.4 million in general and administrative expenses for the year ended December 31, 2023 was primarily due to an increase in personnel-related expenses of $1.5 million from wages, stock-based compensation and bonus expense due to increased average headcount, higher facilities fees and other related costs of $0.1 million due to the commencement of the Boulder, Colorado operating lease, offset by decreased legal, accounting and consulting fees of $0.3 million.

Other income (expense), net

Other income (expense), net was $2.6 million for the year ended December 31, 2023 compared to $0.8 million for the year ended December 31, 2022. The increase of $1.8 million was primarily due to an increase in interest income due to higher average invested cash equivalent balances as well as higher interest rates in 2023. Other expense for the year ended December 31, 2023 was $0.2 million compared to other expense of $0.1 million for the year ended December 31, 2022, primarily due to an increase in foreign exchange losses.

Liquidity and capital resources

Sources of liquidity

Since our inception, we have not generated any revenue from product sales and have incurred significant operating losses and negative cash flows from operations. We expect to incur significant expenses and operating losses in the foreseeable future as we advance the development of product candidates. To date, we have primarily funded our operations with proceeds from the sale of shares of our convertible preferred stock and revenues from our license and collaboration agreements. Through June 30, 2024, we have received aggregate gross proceeds of $188.3 million from the sale of shares of our convertible preferred stock. In addition, through June 30, 2024, we have recognized $17.4 million in research and collaboration revenue through our collaboration and license agreements. As of June 30, 2024, we had cash and cash equivalents of $12.6 million.

Our current capital resources, which consist of cash and cash equivalents, will not be sufficient to fund operations through at least the next twelve months from the date the accompanying unaudited condensed consolidated financial statements as of June 30, 2024 are issued based on our expected cash needs, which raises substantial doubt about our ability to continue as a going concern. In their report accompanying our audited financial statements for the years ended December 31, 2023 and 2022, our independent registered public accounting firm included an explanatory paragraph stating that our recurring losses from operations raise substantial doubt

about our ability to continue as a going concern. Our future viability is dependent on our ability to generate cash from our operating activities or to raise additional capital to finance our operations. There is no assurance that we will succeed in obtaining sufficient funding on terms acceptable to us to fund continuing operations, if at all.

Future funding requirements

We expect our expenses to increase substantially in connection with our ongoing activities, particularly as we continue our development of, seek regulatory approval for, and potentially commercialize our product candidates and seek to discover and develop additional product candidates, conduct our ongoing and planned clinical trials and preclinical studies, continue our research and development activities, hire additional personnel, expand and protect our intellectual property, and incur additional costs associated with being a public company.

The timing and amount of our funding requirements will depend on many factors, including:

- the scope, timing and progress of our ongoing CMP-CPS-001 clinical trial;
- the initiation, type, number, scope, progress, expansions, results, costs and timing of preclinical studies and clinical trials of our product candidates and any future product candidates we may choose to pursue, including the costs of modification to clinical development plans based on feedback that we may receive from regulatory authorities and any third-party products used as combination agents in our clinical trials;
- the costs and timing of manufacturing for our product candidates, including commercial manufacturing at sufficient scale, if any product candidate is approved;
- the costs, timing and outcome of regulatory meetings and reviews of product candidates or any future product candidates, including requirements of regulatory authorities in any additional jurisdictions in which we may seek approval and any future product candidates;
- the costs of obtaining, maintaining, enforcing and protecting our patents and other intellectual property and proprietary rights;
- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal control over financial reporting;
- the costs associated with hiring additional personnel and consultants as our clinical and preclinical activities increase and as we operate as a public company;
- the timing and payment of milestone, royalty or other payments we must make pursuant to our existing and potential future license or collaboration agreements with third parties;
- the costs and timing of establishing or securing sales and marketing capabilities if our product candidates or any future product candidate is approved;
- our ability to achieve sufficient market acceptance, coverage, and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- patients' ability and willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors;
- the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements; and
- costs associated with any products or technologies that we may in-license or acquire.

Based upon our current operating plan, we estimate that our existing cash and cash equivalents as of the date of this prospectus, together with the net proceeds from this offering, will be sufficient to fund our projected operating expenses and capital expenditure requirements through at least . However, we have based this estimate on assumptions that may prove to be wrong, and we could deplete our capital resources sooner

than we currently expect. Our operating plans and other demands on our cash resources may change as a result of many factors currently unknown to us, and we may need to seek additional funds sooner than planned.

We have no other committed sources of capital. Until such time, if ever, we can generate substantial product revenues, we expect to finance our operations through the sale of equity securities, debt financings, working capital lines of credit, strategic alliances and/or license arrangements, grant funding, interest income earned on invested cash balances or a combination of one or more of these sources. However, we may be unable to raise additional funds or enter into such other arrangements when needed, on favorable terms or at all. To the extent we raise additional capital through the sale of equity or convertible debt securities, investors' ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of 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, engaging in acquisition, merger or collaboration transactions, selling or licensing our assets, making capital expenditures, redeeming our stock, making certain investments or declaring dividends. If we raise additional funds through collaborations or license agreements 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 when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves, or even cease operations.

Material cash requirements for known contractual and other obligations

Leases

We have entered into two non-cancellable operating leases for our office and lab space in Cambridge, Massachusetts and Boulder, Colorado. The Cambridge, Massachusetts operating lease expires on June 30, 2027 and the Boulder, Colorado operating lease expires on September 30, 2028. See Note 7 to our consolidated financial statements for additional details related to our noncancellable operating leases.

Finance leases

We have entered into various finance leases for lab equipment. See Note 7 to our consolidated financial statements for additional details related to our finance leases.

Restricted cash

In connection with its operating leases, we are required to maintain security deposits, which were issued in the form of letters of credit with a bank. See Note 2 to our consolidated financial statements for additional details related to our restricted cash.

Research and development costs

We are continuing to invest in the clinical development of CMP-CPS-001 and have entered into contractual obligations with CROs relating to the performance of clinical trial services. Each contract shall continue until the completion of the trial. Our clinical trial costs are dependent on, among other things, the size and length of our clinical trial. We also incur research and development costs related to the enhancement of our existing product candidates.

Other capital requirements and additional royalty obligations

We enter into agreements in the normal course of business with various vendors, which are generally cancellable with a contractually defined notice period. Payments due upon cancellation typically consist of payments for services provided or expenses incurred, as well as non-cancellable obligations of service providers, up to the date of cancellation.

The timing of when we will pay or receive royalty payments is uncertain as the payments are contingent upon future activities, including the successful discovery, development, regulatory approval and commercialization of product candidates.

Cash flows

For the six months ended June 30, 2024 and 2023

The following table provides information regarding our cash flows for the six months ended June 30, 2024 and 2023 (in thousands):

	Six months ended June 30,	
	2024	**2023**
Net cash used in operating activities	$ (24,581)	$ (25,818)
Net cash used in investing activities	(178)	(228)
Net cash (used in) provided by financing activities	(1,014)	567
Net decrease in cash and cash equivalents	$ (25,773)	$ (25,479)

Operating activities

During the six months ended June 30, 2024, operating activities used $24.6 million of cash, primarily resulting from our net loss of $25.0 million and net cash used in changes in our operating assets and liabilities of $3.0 million, partially offset by non-cash charges of $3.4 million, including depreciation and amortization, stock-based compensation expense and non-cash operating lease expense.

During the six months ended June 30, 2023, operating activities used $25.8 million of cash, primarily resulting from our net loss of $24.3 million, partially offset by non-cash charges of $3.3 million, including stock-based compensation expense and non-cash operating lease expense, and net cash used in changes in our operating assets and liabilities of $4.8 million.

Investing activities

During the six months ended June 30, 2024, net cash used in investing activities was $0.2 million, due to purchases of property and equipment.

During the six months ended June 30, 2023, net cash used in investing activities was $0.2 million, due to purchases of property and equipment.

Financing activities

During the six months ended June 30, 2024, net cash used in financing activities was $1.0 million, consisting primarily of $0.6 million of deferred offering cost payments and $0.4 million of finance lease principal payments and repayments for our financing liability.

During the six months ended June 30, 2023, net cash provided by financing activities was $0.6 million, consisting primarily of net proceeds of $0.7 million from a financing obligation, offset by $0.1 million of finance lease principal payments and repayments for our financing liability.

For the years ended December 31, 2023 and 2022

The following table provides information regarding our cash flows for the years ended December 31, 2023 and 2022 (in thousands):

	Year ended December 31,	
	2023	2022
Net cash used in operating activities	$ (44,155)	$ (38,543)
Net cash used in investing activities	(678)	(4,025)
Net cash provided by financing activities	301	100,157
Net (decrease) increase in cash and cash equivalents	$ (44,532)	$ 57,589

Operating activities

During the year ended December 31, 2023, operating activities used $44.2 million of cash, primarily resulting from our net loss of $49.3 million and net cash used in changes in our operating assets and liabilities of $3.9 million, partially offset by non-cash charges of $9.1 million, including depreciation and amortization, stock-based compensation expense and non-cash operating lease expense.

During the year ended December 31, 2022, operating activities used $38.5 million of cash, primarily resulting from our net loss of $44.2 million, partially offset by non-cash charges of $3.9 million, including stock-based compensation expense and non-cash operating lease expense, and net cash used in changes in our operating assets and liabilities of $1.7 million.

Investing activities

During the year ended December 31, 2023, net cash used in investing activities was $0.7 million, due to purchases of property and equipment.

During the year ended December 31, 2022, net cash used in investing activities was $4.0 million, due to purchases of property and equipment.

Financing activities

During the year ended December 31, 2023, net cash provided by financing activities was $0.3 million, consisting primarily of net proceeds of $0.7 million from a financing obligation and proceeds of $0.2 million from the exercise of common stock options, offset by $0.3 million of finance lease principal payments and $0.3 million of repayments for our financing liability related to such financing obligation.

During the year ended December 31, 2022, net cash provided by financing activities was $100.2 million, consisting of net proceeds from the issuance of Series B convertible preferred stock and proceeds from the exercise of common stock options.

Critical accounting policies and significant judgments and estimates

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the U.S. The preparation of our consolidated financial statements and related disclosures requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, costs and expenses, and the disclosure of contingent assets and liabilities in our consolidated financial statements. We base our estimates on historical experience, known trends and events, and various other factors 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 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 the following accounting policies are those most critical to the judgments and estimates used in the preparation of our consolidated financial statements.

Research and development expenses and related prepaid and accrued expenses

As part of the process of preparing our consolidated financial statements, we are required to estimate our R&D expenses as of each balance sheet date. 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 cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. We make estimates of our R&D expenses as of each balance sheet date based on facts and circumstances known to us at that time. The significant estimates in our R&D expenses include the costs incurred for services performed by our vendors in connection with services for which we have not yet been invoiced. We base our expenses related to R&D activities on our estimates of the services received and efforts expended pursuant to quotes and contracts with vendors that conduct R&D 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 R&D expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid expense accordingly. Advance payments for goods and services that will be used in future R&D activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

Although we do not expect our estimates to be materially different from amounts actually incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, it could result in us reporting amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates of such expenses and the amounts actually incurred.

Stock-based compensation

We periodically grant equity-based payment awards in the form of stock options to employees, directors and non-employees and record stock-based compensation expenses for awards of stock-based payments based on their estimated fair value at the grant date. We recognize stock-based compensation expense for all equity-based payments, including stock options. Stock-based compensation costs are calculated based on the estimated fair value of the underlying option using the Black-Scholes option-pricing model on the date of grant for stock options and recognized as expense in the accompanying consolidated statement of operations and comprehensive loss on a straight-line basis over the requisite service period, which is typically the vesting period. Determining the appropriate fair value model and related input assumptions requires judgment, including estimating the fair value of our common stock, and stock price volatility. Estimating the fair value of equity awards at the grant date using valuation models, such as the Black-Scholes option -pricing model, is affected by assumptions regarding a number of variables, including:

- the risk-free interest rate used is based on the published U.S. Department of Treasury interest rates in effect at the time of stock option grant for zero coupon U.S. Treasury notes with maturities approximating each grant's expected term;
- the dividend yield is zero as we have not paid dividends and do not anticipate paying a cash dividend in the foreseeable future;
- the expected term for options granted is calculated using the simplified method and represents the average time that options are expected to be outstanding based on the mid-point between the vesting date and the end of the contractual term of the award;
- expected volatility is derived from the historical volatilities of a select group of representative public companies, for a look-back period commensurate with the expected term of the stock options, as we have no trading history of common stock; and

- fair value of common stock is derived from the third-party valuations discussed further below.

See Note 10 to our consolidated financial statements included elsewhere in this prospectus for information concerning certain of the specific assumptions we used in applying the Black-Scholes option pricing model to determine the estimated fair value of our stock options granted in the periods presented.

The intrinsic value of all outstanding options as of June 30, 2024 was $ million based on the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover of this prospectus, of which approximately $ was related to vested options and approximately $ was related to unvested options.

Determination of fair value of our common stock

Given the absence of a public trading market to date, the fair value of our common stock has been determined by our board of directors at the time of each option grant, with input from management, considering contemporaneous independent third-party valuations of 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, including: the prices at which we sold shares of our convertible preferred stock to outside investors in arms-length transactions, and the superior rights, preferences, and privileges of the convertible preferred stock relative to the common stock at the time of each grant; the progress of our company's R&D programs, including their stages of development, and our company's business strategy; operating and financial performance; the lack of liquidity of the common stock and trends in the broader economy and biotechnology industry also impact the determination of the fair value of the common stock; the likelihood of achieving a liquidity event for our company's securityholders, such as an initial public offering or a sale of the company, taking into consideration prevailing market conditions; and the hiring of key personnel and the experience of management.

These independent third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Auditing and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*, or the Guide. The methodology to determine the fair value of our common stock included estimating the fair value of the enterprise using a market approach, which estimates the fair value of a company by including an estimation of the value of the business based on guideline public companies under a number of different scenarios. The Guide identifies various available methods for allocating enterprise value across classes and series of capital stock to determine the estimated fair value of common stock at each valuation date.

In accordance with the Guide, we considered the following methods:

- *Option Pricing Method, or OPM*. Under the OPM, shares are valued by creating a series of call options with exercise prices based on the liquidation preferences and conversion terms of each equity class. The estimated fair values of the convertible preferred stock and common stock are inferred by analyzing these options. This method is appropriate to use when the range of possible future outcomes is so difficult to predict that estimates would be highly speculative, and dissolution or liquidation is not imminent.
- *Probability-Weighted Expected Return Method, or PWERM*. The PWERM is a scenario-based analysis that estimates value per share based on the probability-weighted present value of expected future investment returns, considering each of the possible outcomes available to us, as well as the economic and control rights of each share class.
- *Hybrid Method*. The Hybrid Method is a hybrid between PWERM and OPM, where the equity value is estimated based on probability-weighted value across multiple scenarios where the OPM is used to estimate the allocation of value within one or more of those scenarios.

Based on our early stage of development, the difficulty in predicting the range of specific outcomes (and their likelihood), and other relevant factors, we determined the OPM scenario was most appropriate for valuations through April 2024.

These third-party valuations were performed at various dates, which resulted in valuation of our common stock of $ per share as of June 30, 2024. 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 convertible preferred stock and the superior rights and preferences of the convertible preferred stock relative to our common stock at the time of each grant;
- the progress of our research and development programs, including the status and results of clinical and preclinical studies for our product candidates;
- our stage of development and our business strategy;
- external market conditions affecting the biopharmaceutical industry and trends within the biopharmaceutical industry;
- our financial position, including cash on hand, and our historical and forecasted performance and operating results;
- the lack of an active public market for our common stock and our convertible preferred stock;
- the likelihood of achieving a liquidity event, such as an initial public offering, an IPO, or sale of our company in light of prevailing market conditions; and
- the analysis of IPOs and the market performance of similar companies in the biopharmaceutical industry.

The assumptions underlying these valuations were highly complex and subjective and represented management's best estimates, 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 be materially different.

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 granted stock options or for any other such awards we may grant, as the fair value of our common stock will be determined based on the closing price of our common stock as reported on the date of grant on the primary stock exchange on which our common stock is traded.

Off-balance sheet arrangements

We did not have, during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Recently issued accounting standards

A description of recently issued accounting standards that may potentially impact our financial position, cash flows, and results of operations is included in Note 2 to our condensed consolidated financial statements.

Emerging growth company and smaller reporting company status

We are an emerging growth company, as defined in the JOBS Act, and we may remain an emerging growth company for up to five years following the completion of this offering. For so long as we remain an emerging growth company, we are permitted and intend to rely on certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm pursuant to Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments not previously approved and an exemption from compliance with the requirements regarding the communication of critical audit matters in the auditor's report on financial statements. In particular, in this prospectus, we have provided only two years of audited financial statements and have not included all of

the executive compensation-related information that would be required if we were not an emerging growth company. Accordingly, the information contained herein may be different than the information you receive from other public companies in which you hold equity interests.

In addition, 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. We have elected to avail ourselves of this extended transition period, which means that when a standard is issued or revised and it has different application dates for public or 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 such time that we either (i) irrevocably elect to "opt out" of such extended transition period or (ii) no longer qualify as an emerging growth company. We may choose to early adopt any new or revised accounting standards whenever such early adoption is permitted for private companies. As a result of this election, our financial statements may not be comparable to those of companies that are not emerging growth companies.

We will remain an emerging growth company until the earliest to occur of: (i) the last day of the fiscal year in which we have at least $1.235 billion in annual revenue; (ii) the last day of the fiscal year in which we are deemed to be a "large accelerated filer," as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year; (iii) the date on which we have issued more than $1.0 billion in nonconvertible debt securities during the prior three-year period; and (iv) the last day of the fiscal year ending after the fifth anniversary of this offering.

We are also a "smaller reporting company," meaning that the market value of our 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 stock 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 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. We may continue to be a smaller reporting company until the fiscal year following the determination that we no longer meet the requirements necessary to be considered a smaller reporting company.

Quantitative and qualitative disclosures about market risks

Interest rate risk

Our cash and cash equivalents consist of cash held in readily available checking and money market accounts. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates. However, because of the short-term nature of the instruments in our portfolio, a sudden change in market interest rates would not be expected to have a material impact on our financial condition or results of operations.

Foreign currency exchange risk

We are not currently exposed to significant market risk related to changes in foreign currency exchange rates. As we continue to develop our business, our results of operations and cash flows will likely be more affected by fluctuations in foreign currency exchange rates, including the Euro and other currencies, which could adversely affect our results of operations. To date, we have not entered into any foreign currency hedging contracts to mitigate our exposure to foreign currency exchange risk. 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 impact on our consolidated financial statements included elsewhere in this prospectus.

Effects of inflation

Inflation could affect us by increasing our cost of labor and R&D costs. We do not believe inflation has had a material effect on our business, financial condition or results of operations, or on our consolidated financial statements included elsewhere in this prospectus.

Business

CAMP4 is the final camp before the summit of Mount Everest. It is also home to a climbing haven in Yosemite National Park where the world's greatest climbers gather to push the boundaries for what is thought to be possible. Like these elite climbers, we are pushing the boundaries of biology to discover and develop new and potentially life changing therapeutics.

Our company

We are a clinical-stage biopharmaceutical company pioneering the discovery and development of regulatory RNA-based therapeutics with the goal of upregulating gene expression and restoring healthy protein levels to treat a broad range of genetic diseases. Regulatory RNAs, or regRNAs, play a central role in the regulation of every protein-coding gene by contributing to gene activation and suppression. Our approach is designed to amplify messenger RNA, or mRNA, expression by harnessing the power of regRNAs that form localized complexes with transcription factors and regulate gene expression. Our proprietary RNA Actuating Platform, or RAP Platform, allows us to rapidly and systematically identify and characterize the active regulatory elements controlling every expressed gene and tens of thousands of druggable enhancer and promoter regRNA sequences that control protein-coding genes. Once a disease-associated target gene is identified, we apply our RAP Platform to identify the controlling regRNA and rapidly generate novel antisense oligonucleotide, or ASO, candidates, which we also refer to as RNA Actuators. These ASOs are designed to bind to the identified regRNA and amplify the expression of the target gene in a specific and controllable way. We are initially focused on metabolic and central nervous system, or CNS, diseases with validated disease biology, and we believe our RAP Platform allows us to address a broad range of genetic diseases in which a modest increase in protein expression has the potential to be clinically meaningful.

Based on our preclinical studies, we believe our lead product candidate, CMP-CPS-001, has the potential to be the first disease-modifying therapy for the treatment of the most prevalent urea cycle disorders, or UCDs. UCDs are a group of severe, inherited metabolic diseases caused by mutations in the genes that encode one or more of the eight enzymes and transporters necessary to convert ammonia into urea. The inability of the body to properly metabolize ammonia leads to the accumulation of toxic levels in circulation, ultimately resulting in severe health outcomes, such as neurologic disability, seizure and death. CMP-CPS-001 is designed to improve urea cycle activity by amplifying expression of carbamoyl phosphate synthetase 1, or CPS1, an enzyme that catalyzes the first step of the urea cycle, by binding to a CPS1-specific regRNA. Our preclinical studies have demonstrated that modulating the activity of the target regRNA increases expression of the *CPS1* gene, resulting in increased CPS1 enzyme levels, which allows for more ammonia to be converted into urea, thereby lowering ammonia levels to normal, healthy ranges. These preclinical studies also demonstrated that CMP-CPS-001 can increase the level of, or upregulate, the production of multiple enzymes responsible for converting ammonia into urea, potentially allowing us to address more than 85% of patients with UCDs, which we refer to as our pan-UCD approach. We are in the early stages of development and are evaluating CMP-CPS-001 in an ongoing Phase 1 clinical trial in healthy volunteers and expect to report data from all four cohorts of the single ascending dose, or SAD, portion of the trial in the first quarter of 2025 and from the multiple ascending dose, or MAD, portion of the trial in the second half of 2025. We are also leveraging our RAP Platform to advance a preclinical program for the treatment of synaptic Ras GTPase activating protein 1, or SYNGAP1,-related disorders. We expect to initiate final Good Laboratory Practice, or GLP, toxicology studies in our SYNGAP1 program in 2025 to enable the filing of clinical trial applications.

The transcription of DNA into mRNA, the molecular template that is then translated into protein, is a complex yet carefully coordinated cellular process involving numerous components. Only a small portion of the DNA in the human genome is transcribed into RNA that codes for proteins. The vast majority of the transcriptome originates from non-coding regions of DNA, a portion of which, referred to as enhancers and promoters, perform a crucial role in determining the specificity, timing and level at which a particular gene is expressed. RegRNAs are non-coding RNAs that are transcribed by these enhancer and promoter DNA regions that form localized complexes with transcription factors to control the expression of protein-coding genes, either increasing or decreasing their

expression within natural physiological ranges. The approximately 20,000 genes that code for mRNA in the human genome are controlled by hundreds of thousands of DNA enhancers and their associated regRNAs.

Deficient protein levels characterize over a thousand diseases. Haploinsufficient diseases are dominantly inherited conditions in which inadequate gene expression is driven by a mutation in a single allele, or gene copy, and results in reductions of protein levels by as much as 50%. Numerous other genetic conditions are caused by recessive mutations that result in diminished gene activity. Data from our preclinical studies and research reports published by third parties demonstrate that increasing expression of disease-associated genes by modest amounts can restore healthy protein levels and provide therapeutic benefit in these disorders. Therefore, modest increases in protein expression have the potential to be clinically meaningful in both haploinsufficient and recessive partial loss-of-function disorders, of which there are more than 1,200. Our RAP Platform has the potential to identify the regRNA associated with all of these diseases, which we believe enables us to design RNA Actuators to address the underlying biology of these diseases. We aim to leverage our RAP Platform to develop product candidates designed to regulate transcription in a gene-specific manner to restore healthy protein levels and remedy these diseases. However, our approach is unproven and may not lead to successful efforts to develop and commercialize our product candidates and to identify and discover additional potential product candidates.

Our RAP Platform

We believe our RAP Platform can unlock the potential of the human genome and have broad applications across a range of diseases caused by sub-optimal levels of protein expression. Our technology is based upon the pioneering work in transcription regulation conducted by our co-founders, Richard Young, PhD and Leonard Zon, MD. We have built our RAP Platform to identify and characterize every regRNA that controls protein-coding genes and to develop novel ASO-based therapeutics to modulate regRNA activity to increase the expression of protein-coding genes of interest and thereby address the underlying cause of genetic diseases. Based on our proprietary mapping of regRNAs and screening and optimizing of ASOs, we have established a leadership position in regRNA-targeting therapies. Our goal is to be the preeminent company focused on discovering, developing and delivering regRNA-targeting therapeutics to patients. We believe that the ability to upregulate genes selectively through targeting regRNA could provide a new way to treat a wide range of human diseases and has the potential to become a class of new medicines.

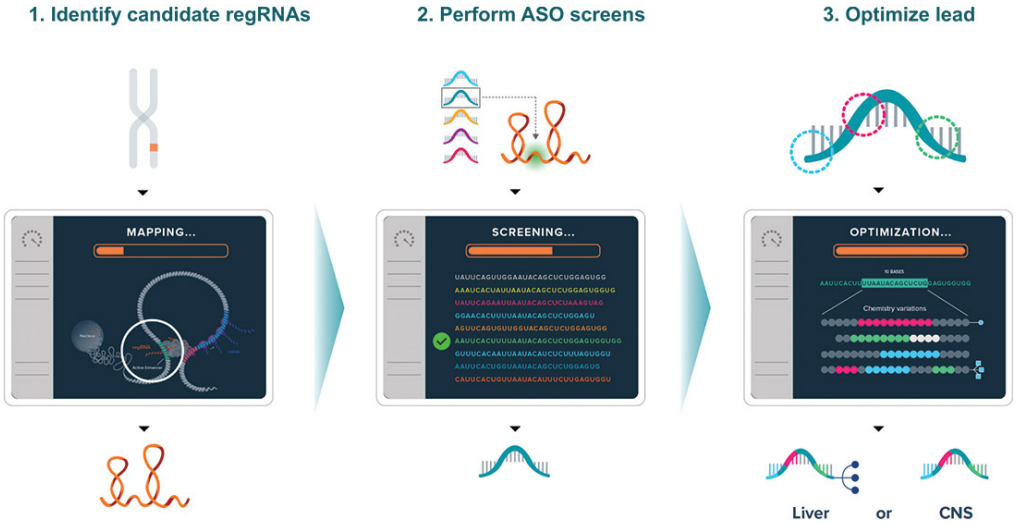
At present, very few regRNAs are described in public genomic databases, as they are often expressed at low levels and their importance was not fully understood. Our RAP Platform utilizes next-generation sequencing technologies and custom sequence analyses to map the active regulatory elements controlling every expressed gene. These data empower our proprietary machine learning algorithm, known as EPIC, to identify the specific control elements that regulate any gene of interest in the most specific manner, including elements that may restrict gene expression to a particular cell type. This enables us to identify the exact sites of regRNA synthesis and ultimately map the complete sequence of every candidate regRNA to target for therapeutic gene control. To date, we have mapped multiple cell types in as little as three months, comprising a number of potentially addressable diseases in the liver, CNS, heart, skeletal muscle and immune system. Our in-house development and application of this technology has enabled us to identify tens of thousands of enhancer and promoter regRNA sequences and their key biological properties, resulting in what we believe to be the most robust regRNA dataset available.

We combine our RAP Platform with ASO chemistry that has been utilized and validated in U.S. Food and Drug Administration, or FDA,-approved products to develop programmable RNA Actuators that are designed to precisely upregulate gene expression at the transcriptional level. Once a target gene is nominated, our RAP Platform rapidly identifies the controlling regRNA sequence, and we perform ASO screens to identify regions where ASO binding results in optimal upregulation of that target gene. Further rational design is applied to the ASOs identified in the screen. Our proprietary technology enables us to design RNA Actuators that optimize for specificity by avoiding binding to regRNAs that act on more than one gene and any other similar sequences found elsewhere in the transcriptome. As a result, our sequence-specific approach enables us to precisely target regRNA transcripts

to increase gene expression. Our approach is designed to enable the efficient and systematic creation of RNA Actuators to target regRNAs of interest. Building upon the power of this technology, our RNA Actuators can be programmed to engage regRNA targets, producing tunable increases in protein expression. While other ASOs have received regulatory approval, no regulatory authorities to date have approved ASOs that are directed towards regRNAs and, as a result, there is uncertainty as to the safety and efficacy profile of our product candidates compared to currently approved ASOs.

The key steps involved in our platform are illustrated below:

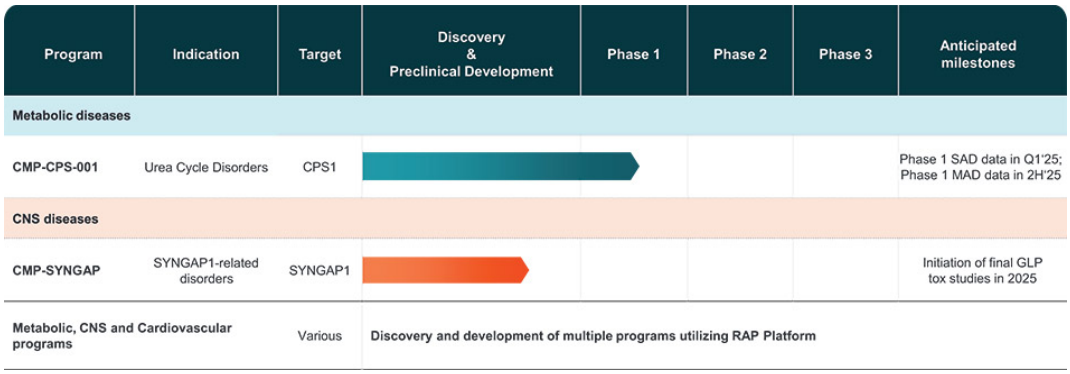
Our proprietary RAP Platform



We design RNA Actuators to leverage existing oligonucleotide delivery approaches to enable drug delivery to specific types of tissues throughout the body. We believe our RAP Platform can address any disease where a modest increase in protein expression can be clinically meaningful, including haploinsufficient diseases or recessive loss-of-function diseases. Furthermore, as we continue to map regRNAs and conduct ASO screens in more cell types, the data generated will improve the algorithms we use to identify the candidate regRNAs to specifically control gene expression. We believe the knowledge and learnings from our initial programs will significantly expedite selection of lead candidates and position us to rapidly expand our pipeline.

Our pipeline

We are leveraging our RAP Platform to advance a pipeline of programs initially focused on metabolic and CNS disorders with validated disease biology and attractive potential market opportunities due to the significant unmet need of affected patients. We retain exclusive, worldwide development and commercialization rights to all of our product candidates and preclinical programs.



CMP-CPS-001: Potential treatment for urea cycle disorders

Based on our preclinical studies, we believe our lead product candidate, CMP-CPS-001, has the potential to be the first disease-modifying therapy for the treatment of the most prevalent UCDs. UCDs are a group of severe, inherited metabolic diseases caused by mutations in the genes that encode one or more of the eight enzymes and transporters necessary to convert ammonia into urea, which is then excreted from the body. The inability of the body to properly metabolize ammonia leads to the accumulation of toxic systemic levels in circulation, ultimately resulting in severe health outcomes, such as neurologic disability, seizure and death. UCDs occur across all age groups, from infants to adults, and mild symptoms may go unnoticed until a stressor, such as illness, surgery, protein consumption or environmental stress, overwhelms compensatory functions, resulting in hyperammonemic crisis, or extremely high levels of ammonia. The prevalence of UCDs is estimated to be approximately 3,700 patients in the United States, or U.S., of which we estimate 90% are late onset, defined as having severe symptom onset after one month of life, and 96% of these late onset patients have enzyme deficiencies we can address. The incidence of UCDs in the U.S. is estimated to be approximately 1 in 35,000 births, with similar prevalence and incidence estimated for Europe. The most common UCD, accounting for approximately 60% of UCD diagnoses, is ornithine transcarbamylase, or OTC, deficiency, caused by mutations in the *OTC* gene. The next two most common genetic subtypes are caused by mutations in the genes coding for the enzymes argininosuccinate lyase, or ASL, and argininosuccinate synthetase, or ASS1, deficiencies which affect approximately 16% and 14% of UCD patients, respectively.

There are no FDA-approved, disease-modifying therapies to treat the most prevalent UCDs. The standard of care is supportive in nature and intended to reduce the frequency of, but not eliminate, hyperammonemic crises. Current protocols for patients involve efforts to lower plasma ammonia levels. Reduction in plasma ammonia is achieved through nitrogen scavengers to remove excess nitrogen, along with the dosing of supplemental citrulline. These nitrogen scavenger agents carry an onerous pill regimen and significantly diminish the quality of life for patients. Longer-term maintenance regimens involve strict adherence to a low-protein diet along with the prophylactic use of nitrogen scavenger agents. When necessary, hemodialysis is used to reduce ammonia concentrations. The existing supportive measures are not sufficient, with many patients suffering neurological disability and premature death. Therapies currently in development are targeting only a select subgroup of patients with UCD, which includes those with OTC deficiency and patients 12 years and older. We have designed CMP-CPS-001 to be broadly applicable to UCD patients and to overcome the limitations of the current standard of care as well as programs in development for the treatment of late onset UCDs by using an established ASO modality and convenient once-monthly subcutaneous administration in order to provide UCD patients with the potential for a safe and efficacious treatment option. We are initially targeting our development of CMP-CPS-001 in the most prevalent late-onset patients (those with OTC, ASL and ASS1 deficiencies, which together constitute more than 80% of patients with UCDs) and we may expand into additional groups of patients with less common forms of UCD. The FDA granted Rare Pediatric Disease designation to CMP-CPS-001 for the treatment of UCDs in August 2024 and granted orphan drug designation to CMP-CPS-001 for the treatment of UCDs in September 2024.

CMP-CPS-001 is designed to improve urea cycle activity by amplifying expression of CPS1, a key enzyme that catalyzes the first step of the urea cycle, by binding to a CPS1-specific regRNA. CMP-CPS-001 is a subcutaneously

injected ASO conjugated to N-acetylgalactosamine, or GalNAc, a ligand that enables targeted delivery to the liver, designed to be administered monthly. Increasing *CPS1* expression enhances the metabolism of ammonia and upregulates multiple urea cycle enzymes, including OTC, resulting in elevated urea cycle activity. Our RAP Platform enabled us to (i) identify the key enhancer modulating *CPS1* expression, (ii) screen ASOs directed to the regRNAs expressed by this enhancer, and (iii) generate a lead RNA Actuator designed to increase *CPS1* expression.

Our preclinical studies have demonstrated that modulating the activity of the target regRNA increases expression of the *CPS1* gene, resulting in increased CPS1 enzyme levels, which allows for more ammonia to be converted into urea, thereby lowering ammonia levels to normal, healthy ranges. This includes studies in a mouse model where we demonstrate that increasing *Cps1* expression can overcome a partial loss of function mutation in the urea cycle enzyme, *Otc*, and improve ammonia clearance. These preclinical studies also demonstrated that CMP-CPS-001 can upregulate the production of multiple enzymes responsible for converting ammonia into urea, which supports our pan-UCD approach. In non-human primate, or NHP, studies, the administration of CMP-CPS-001 increased the synthesis of urea, commonly referred to as ureagenesis. In these NHP studies, labeled sodium acetate was used as part of a ureagenesis rate test, or URT, to measure the metabolic output of the urea cycle. Carbaglu, approved for ultra-rare N-actylgluatamate synthesase, or NAGS-deficient patients, utilized the URT in healthy volunteers and showed that minimal increases in ureagenesis translated to substantial ammonia reductions in NAGS-deficient patients. Rates of ureagenesis were found to exceed those achieved by placebo in a statistically significant manner. This assay is also being used in our Phase 1 clinical trial. An increase in the metabolic output of the urea cycle, as indicated by an increase in the amount of labeled sodium acetate metabolized, is expected to correlate with an increase in the amount of ammonia metabolized. Although we believe that an increase in ureagenesis in our Phase 1 clinical trial may correspond with clinically meaningful improvements in ammonia metabolism in UCD patients, ureagenesis is not an established clinical endpoint and the URT results obtained in our Phase 1 clinical trial in healthy adult volunteers should not be interpreted as evidence of efficacy of CMP-CPS-001. For a further discussion of our use of this assay, please see “Risk factors—The outcome of preclinical studies and earlier-stage clinical trials may not be predictive of future results or the success of later preclinical studies and clinical trials.” We are evaluating CMP-CPS-001 in a randomized, double-blind and placebo-controlled Phase 1 clinical trial to evaluate safety, tolerability and pharmacokinetics in healthy volunteers in Australia. We expect to report Phase 1 clinical trial data from all four cohorts of the SAD portion in the first quarter of 2025 and from the MAD portion in the second half of 2025.

CMP-SYNGAP: Program for the treatment for SYNGAP1-related disorders

Our initial CNS development program, CMP-SYNGAP, aims to address the underlying cause of SYNGAP1-related disorders. SYNGAP1-related disorders are a group of neurodevelopmental conditions caused by pathogenic variants in the *SYNGAP1* gene leading to a haploinsufficient state that reduces SYNGAP protein levels by as much as 50%. SYNGAP plays a critical role in the development of cognition and proper synaptic function. Epilepsy is a common characteristic of these disorders and nearly all patients present with some degree of developmental delay and cognitive impairment. Patient estimates for SYNGAP1-related disorders vary significantly. We estimate that 5,000 individuals have been diagnosed with these disorders in the U.S., though we believe many more with mild symptoms remain undiagnosed and are not included in this estimate. Incidence estimates of SYNGAP1-related disorders range from 1 to 40 in 100,000 individuals and the disorder is reported to represent 0.5% to 1.0% of all intellectual disability cases.

There are no FDA-approved, disease-modifying therapies for SYNGAP1-related disorders. There is also no definitive treatment protocol, which is dependent on seizure type and severity and other neurological characteristics. Treatment is often limited to supportive physical, occupational and speech therapy. A combination of non-specific anti-seizure medications may be prescribed to treat seizures, though SYNGAP1-related disorders have proven difficult to control with available therapeutics. As many as 50% of patients do not adequately respond to medication, in which case implantable devices, such as those for vagus nerve stimulation, may offer incremental therapeutic benefit.

We are advancing our CMP-SYNGAP program to address the significant unmet need for these patients by targeting the direct cause of SYNGAP1-related disorders, haploinsufficiency, which we believe is amenable to

targeting through regRNAs. Our CMP-SYNGAP program is a novel approach that targets the *SYNGAP1* gene at the transcriptional level to restore SYNGAP function and improve symptoms, by utilizing an intrathecally delivered ASO. We have identified specific regRNA sequences involved in *SYNGAP1* transcription and leverage our RAP Platform to generate ASOs that function to increase *SYNGAP1* transcription. Upregulation of *SYNGAP1* gene expression may increase SYNGAP protein levels in amounts sufficient to yield therapeutic benefit. Our preclinical studies demonstrated a dose-dependent increase in SYNGAP1 mRNA levels accompanied by a reduction in *SYNGAP1* expression. We expect to initiate final GLP toxicology studies in 2025 to enable the filing of a clinical trial application.

Our team

Our management team brings a depth of experience and knowledge in platform research, drug discovery and development and commercialization. Our team is led by our President and Chief Executive Officer Josh Mandel-Brehm, who brings over 18 years of leadership experience with life sciences companies, including business development and operational experience from his time at Biogen, Sanofi and Genzyme; David Bumcrot, PhD, our Chief Scientific Officer, an industry expert who was responsible for the initial therapeutic initiatives utilizing CRISPR technology at Editas Medicine and the start of RNAi therapeutic development at Alnylam Pharmaceuticals; Yuri Maricich, MD, our Chief Medical Officer, who led clinical, regulatory, quality and medical affairs functions as a member of the executive team of several early-stage biopharmaceutical companies, including Pear Therapeutics; and Kelly Gold, our Chief Financial Officer, who was previously part of the corporate finance and business planning groups at Biogen and the healthcare investment banking group of Deutsche Bank.

Our technology is based on the pioneering work in transcription regulation conducted by our distinguished co-founders, Richard Young, PhD, of the Whitehead Institute for Biomedical Research and the Massachusetts Institute of Technology, and Leonard Zon, MD, who is affiliated with Boston Children's Hospital and the Harvard Medical School.

Since our inception, we have raised $188.3 million. Our investor group includes entities affiliated with 5AM Ventures; AH Bio Fund I, L.P.; Everest Aggregator, LP, an affiliate of Enavate Sciences; entities affiliated with the Kaiser Permanente Group Trust; entities affiliated with Northpond Ventures, LLC; entities affiliated with Polaris Partners; and SMRS-TOPE LLC. Prospective investors should not rely on the investment decisions of our existing investors, as these investors may have different risk tolerances and strategies and have purchased their shares in prior offerings at prices lower than the price offered to the public in this offering. In addition, some of these investors may not be subject to reporting requirements under Section 16 of the Securities Exchange Act of 1934, and, thus, prospective investors may not necessarily know the total amount of investment by each of the prior investors and if and when some of the prior investors decide to sell any of their shares. See the sections titled "Certain relationships and related person transactions" and "Principal stockholders" for more information on prior purchases by and current holdings of these stockholders.

Our strategy

Our mission has been to decode the rules of human gene expression to develop a new class of medicines that can transform the treatment paradigm for a wide range of genetic-based diseases. To accomplish this, we leverage our proprietary RAP Platform to map cells and discover regRNAs that regulate protein-coding genes in diseases characterized by sub-optimal levels of protein expression where modest increases in protein production can have a clinically meaningful therapeutic effect on patients. The key elements of our strategy include:

- ***Advance our lead candidate, CMP-CPS-001, through clinical trials and become the first approved disease-modifying therapy for UCDs.*** Based on our preclinical studies, we believe our lead product candidate, CMP-CPS-001, has the potential to be the first disease-modifying therapy for the treatment of the most prevalent UCDs and is designed to improve urea cycle activity by amplifying expression of CPS1. Our preclinical studies have demonstrated that modulating the activity of the target regRNA increases expression of the *CPS1* gene, resulting in increased CPS1 enzyme levels, which allows for more ammonia to be converted into urea, thereby lowering ammonia levels to normal, healthy ranges. These preclinical studies

also demonstrated that CMP-CPS-001 can upregulate the production of multiple enzymes responsible for converting ammonia into urea, potentially allowing us to address more than 85% of patients with UCDs. We are investigating CMP-CPS-001 in an ongoing Phase 1 clinical trial in healthy volunteers. We expect to report Phase 1 clinical trial data from all four cohorts of the SAD portion in the first quarter of 2025 and from the MAD portion in the second half of 2025.

- ***Rapidly advance our disease-modifying candidate for SYNGAP1-related disorders into clinical development.*** Our initial CNS development program, CMP-SYNGAP, aims to address the underlying cause of SYNGAP1-related disorders. CMP-SYNGAP utilizes a novel approach that targets the *SYNGAP1* gene at the transcriptional level designed to restore SYNGAP function. In preclinical studies, we have demonstrated that the administration of an ASO targeting a Syngap1 regRNA was able to increase Syngap1 mRNA levels in a dose-dependent manner in the brains of mice. We expect to initiate final GLP toxicology studies for our CMP-SYNGAP program in 2025 to enable the filing of a clinical trial application.
- ***Leverage our RAP Platform to expand our pipeline in metabolic, CNS and other disease areas characterized by sub-optimal levels of protein expression.*** Our approach is designed to amplify gene expression in a specific and controllable way within a desired physiologic range, in diseases where modest increases in protein expression can be clinically meaningful in both haploinsufficient and recessive partial loss-of-function disorders, of which there are more than 1,200. Our RAP Platform has the potential to identify the regRNA associated with all of these diseases, which we believe enables us to design RNA Actuators to address the underlying biology of these diseases. We have advanced programs in liver-mediated and CNS diseases where we believe we can leverage validated disease biology and delivery mechanisms and established regulatory pathways followed by current FDA-approved, ASO-based therapies. We plan to expand the potential of our RAP Platform by developing a deep pipeline of product candidates addressing other haploinsufficient or loss-of function diseases including, but not limited to, diseases of the heart, muscle and eye.
- ***Leverage validated modalities to efficiently advance programs through clinical development and regulatory approval.*** ASOs have substantial familiarity among regulatory agencies, including the FDA, as an established treatment modality whose use currently includes FDA-approved drugs, and protocols for manufacturing and production at scale are accessible. By utilizing chemistry in approved products, we can take advantage of regulatory familiarity, established manufacturing processes and existing delivery systems.
- ***Pursue strategic partnerships to maximize the value of our product candidates and RAP Platform.*** We intend to seek strategic collaborations where we believe the resources and expertise of third-party pharmaceutical or biotechnology companies could accelerate new programs into the clinic and towards approvals and help realize the therapeutic and market potential of our product candidates. The capabilities of our RAP Platform extend to numerous additional indications, and we intend to evaluate opportunities with third-party collaborators to capitalize on the broad potential of our RAP Platform.
- ***Build a leading regRNA-targeting therapeutic company.*** We are a pioneer in the field of regRNA-based therapeutics and our goal is to be the preeminent company focused on discovering, developing and delivering regRNA-targeting therapeutics to patients. Our proprietary RAP Platform, know-how and scientific expertise have enabled us to discover regRNAs and develop ASOs targeting these regRNAs. We aim to advance RNA Actuators as a new class of therapy for patients by demonstrating their potential across recessive loss-of-function and haploinsufficient disorders of the liver and CNS. We plan to continue our leadership position in regRNA by innovating and expanding upon our RAP Platform and technological capabilities.

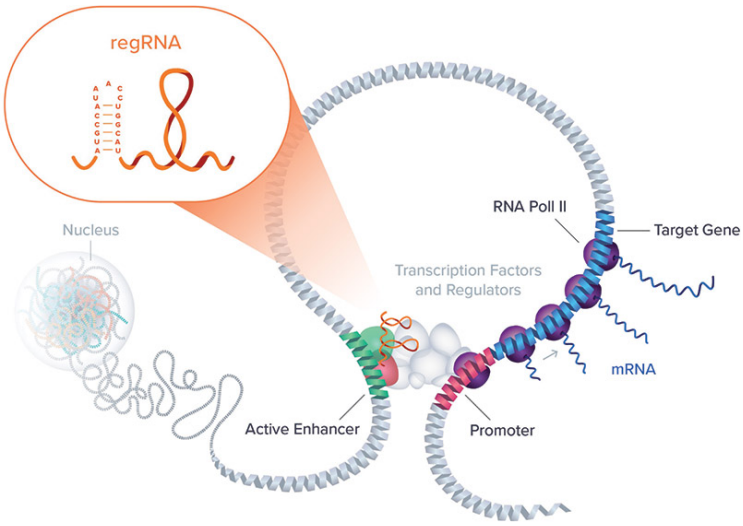
The role of regRNA in controlling transcription

The transcription of DNA into mRNA, the molecular template that is then translated into protein, is a complex yet carefully coordinated biological process involving numerous components. Only a small portion of the DNA encodes for proteins. Much of the remaining DNA comprises regions, known as promoters and enhancers, that

control gene expression. The approximately 20,000 genes which code for mRNA in the human genome are controlled by hundreds of thousands of these elements and their associated regRNAs. The promoter region of the gene is located immediately before the DNA sequence encoding for an mRNA. Promoters bind transcription factors, coactivators and RNA polymerase leading to transcription initiation. Enhancers bind transcriptional regulatory proteins and interact with promoters to determine the specificity, timing and level at which a particular gene is expressed.

More than a decade ago, it was discovered that all active gene regulatory elements are also transcribed. These non-coding RNA transcripts generated by both enhancer and promoter DNA regions are defined as regRNAs. Recently, it was discovered that regRNAs play a central role in the formation of localized molecular complexes with transcriptional activators and suppressors, which function to control mRNA transcription. As shown in the illustration below, promoters and enhancers are brought into close proximity when a gene is being actively transcribed. RegRNAs generated from these regulatory elements remain closely associated with the complex that forms at the enhancer-promoter interface. Thus, regRNAs act in a gene-specific manner, only influencing the expression of the gene near the sites where they arise.

Interactions between enhancer and promoter DNA regions are critical regulators of gene expression

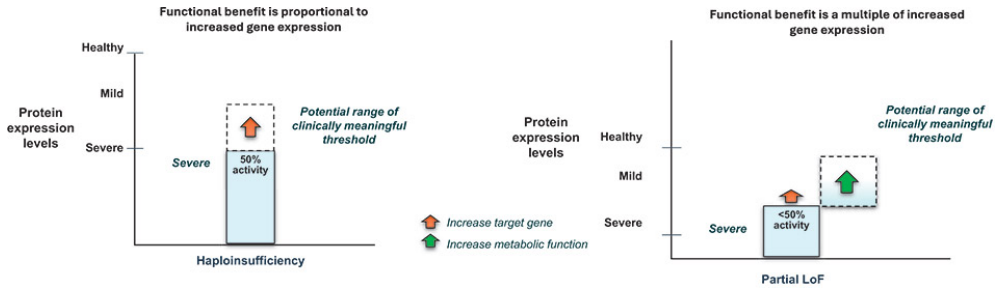


Deficient protein levels characterize over a thousand human diseases. Haploinsufficient diseases are dominantly inherited conditions in which inadequate gene expression, driven by a mutation in a single allele, or gene copy, results in reductions of protein levels by as much as 50%. Data from our preclinical studies and research reports published by third parties demonstrates that increasing expression of disease-associated genes by modest amounts can restore healthy protein levels and provide therapeutic benefit in these disorders. In addition to haploinsufficiencies, numerous other genetic conditions are characterized by a loss of protein function. These include recessive loss-of-function diseases caused by mutations in both alleles that reduce, but do not completely abolish, protein function. Similar to haploinsufficiencies, our preclinical studies and research conducted by third parties shows that even modest increases in expression of these partially active proteins can be therapeutically beneficial.

The figures below illustrate the concept that modest increases in protein expression can lead to clinically meaningful therapeutic benefits in both haploinsufficient and recessive partial loss-of-function disorders, of which there are more than 1,200. Our RAP Platform has the potential to identify the regRNA associated with all of these diseases, which we believe enables us to design RNA Actuators to address the underlying biology of these diseases. The image on the left illustrates that, with respect to haploinsufficient diseases, it is anticipated that an increase in functional protein levels, even below those expressed in the wild-type phenotype, would be clinically

meaningful. The image on the right illustrates that, with respect to partial loss-of-function disorders, the increase of protein expression, even where the protein continues to be mutated, may be sufficient to achieve a clinically meaningful result for affected patients. We are leveraging proprietary insights into the regulatory activities of regRNAs generated internally using our proprietary RAP Platform to pioneer the development of novel therapeutics designed to achieve this objective.

Gene expression increases have the potential to reduce or eliminate disease related to haploinsufficiency and loss of function disorders



LoF denotes loss of function.

Our RAP Platform

The evolving view of gene regulation now recognizes RNA as a key regulator of transcription. We were founded on the pioneering work in transcription regulation conducted by our co-founders, Richard Young, PhD and Leonard Zon, MD. We believe our RAP Platform can unlock the potential of the human genome and have broad applications across a range of diseases caused by sub-optimal levels of protein expression. We have built our proprietary RAP Platform to discover the regRNAs that control protein-coding genes and develop novel ASO-based therapeutics to modulate regRNA activity to increase the expression of protein-coding genes of interest and thereby address the underlying cause of genetic diseases. Based on our proprietary mapping of regRNAs and screening and optimizing of ASOs, we have established a leadership position in regRNA-targeting therapies. Our goal is to be the preeminent company focused on discovering, developing and delivering regRNA-targeting therapeutics to patients. We believe that the ability to upregulate genes selectively through targeting regRNA could provide a new way to treat a wide range of human diseases and has the potential to become a new class of medicines.

Our proprietary RAP Platform is built to map every regRNA for the tunable amplification of gene expression. Only a few regRNAs are described in public genomic databases, as they are often expressed at low levels and their importance was not fully understood. Our RAP Platform utilizes next-generation sequencing technologies and custom sequence analyses to map the active regulatory elements controlling every expressed gene. Further distinguishing the robust capabilities of RAP Platform is our ability to use primary human cell lines, rather than immortalized cultured cells, to preserve the functional integrity of specific cell types. To date, we have mapped multiple cell types in as little as three months, comprising a number of potentially addressable diseases in the liver, CNS, heart, skeletal muscle and immune system. We have demonstrated that we can identify regRNA-targeting ASOs that increase specific gene expression in those tissues. These data are analyzed with our proprietary machine learning algorithms to select candidate regRNA targets that regulate transcription in a gene-specific manner to increase protein production within a physiological range. Our in-house development and application of this technology has enabled us to identify tens of thousands of regRNA sequences and their key physiological properties resulting in what we believe to be the most robust regRNA dataset available. Moreover, we believe the ability of our RAP Platform to select the most likely regRNAs controlling a given gene from the large number of candidates is a key advantage of our technology, and represents a significant barrier to others seeking to develop this approach.

Our approach is designed to enable the efficient and systematic creation of RNA Actuators to target regRNAs of interest. Building upon the power of this technology, our RNA Actuators can be programmed to engage regRNA

targets and induce tunable increases in protein expression. As we continue to map regRNAs and conduct ASO screens in more cell types, the data generated will improve the algorithms we use to identify the candidate regRNAs to specifically control gene expression. Thus, we believe the knowledge and learnings from our initial programs will significantly expedite selection of lead candidates and position us to rapidly expand our pipeline.

We combine our proprietary RAP Platform with validated ASO chemistry to develop programmable RNA Actuators that are designed to precisely upregulate gene expression at the transcriptional level. An ASO construct is a single-stranded, chemically modified, nucleic-acid sequence that binds to a target regRNA sequence and modulates its activity. ASOs block or remove key interactions and lead to both increased mRNA and protein expression. Once a target gene is selected, our RAP Platform rapidly identifies the controlling regRNA, and we perform ASO screens to identify regions where ASO binding results in optimal upregulation of that target gene. Further rational design is applied to lead sequences utilizing established approaches to optimize ASOs. Our RAP Platform enables us to design RNA Actuators that potentially optimize for specificity by avoiding the potential of binding to similar sequences found elsewhere in the transcriptome which may result in deleterious side effects. As a result, our sequence-specific approach enables us to precisely target regRNA transcripts to increase gene expression.

Our use of validated ASO chemistry to generate potential therapeutic candidates provides us the flexibility to screen using a range of target sequences and to design and synthesize multiple ASO construct variations that integrate a range of chemical modifications and tissue-targeting delivery vehicles intended to maximize therapeutic potency and target specificity.

We design RNA Actuators to leverage existing oligonucleotide delivery approaches to enable drug delivery to specific types of tissues throughout the body. Our metabolic programs utilize subcutaneous administration of GalNAc-conjugated ASOs for efficient liver delivery. Our CNS program utilizes intrathecal delivery of an unconjugated ASO which provides sufficient distribution in the CNS. Our RAP Platform has the potential to address any disease where increasing protein expression can be clinically meaningful, including haploinsufficient diseases or recessive loss-of-function diseases, by returning protein levels to a normal physiological range. Furthermore, given the versatility of our platform, we believe the knowledge and learnings from our initial programs will expedite selection of lead candidates and position us to rapidly expand our pipeline.

Our programs

We are leveraging our RAP Platform to advance a pipeline of programs initially focused on metabolic and CNS disorders with validated disease biology and attractive potential market opportunities due to the significant unmet need of affected patients. We retain exclusive, worldwide development and commercialization rights to all of our product candidates and preclinical programs. Our lead product candidates and programs include a product candidate currently in a Phase 1 clinical trial, CMP-CPS-001, for the treatment of UCDs, and a preclinical program, CMP-SYNGAP for the treatment of SYNGAP1-related disorders, for which we expect to initiate final GLP toxicology studies in 2025 to enable the filing of a clinical trial application.

CMP-CPS-001: Our lead product candidate for urea cycle disorders

Based on our preclinical studies, we believe our lead product candidate, CMP-CPS-001, has the potential to be the first disease-modifying therapy for the most prevalent UCDs, and is designed to improve urea cycle activity by amplifying expression of CPS1 by binding to a CPS1-specific regRNA. CMP-CPS-001 is a subcutaneously injected ASO conjugated to GalNAc and designed to be administered monthly. Our preclinical studies have demonstrated that modulating the activity of the target regRNA increases expression of the *CPS1* gene, resulting in increased CPS1 enzyme levels, which allows for more ammonia to be converted into urea, thereby lowering ammonia levels to normal, healthy ranges. Our preclinical studies have also demonstrated that CMP-CPS-001 can upregulate the production of multiple enzymes responsible for converting ammonia into urea, potentially allowing us to address more than 85% of patients with UCDs. We are evaluating CMP-CPS-001 in an ongoing Phase 1 clinical trial in healthy volunteers and expect to report data from all four cohorts of the SAD portion of the trial in the first quarter of 2025 and from the MAD portion of the trial in the second half of 2025. The FDA granted Rare Pediatric

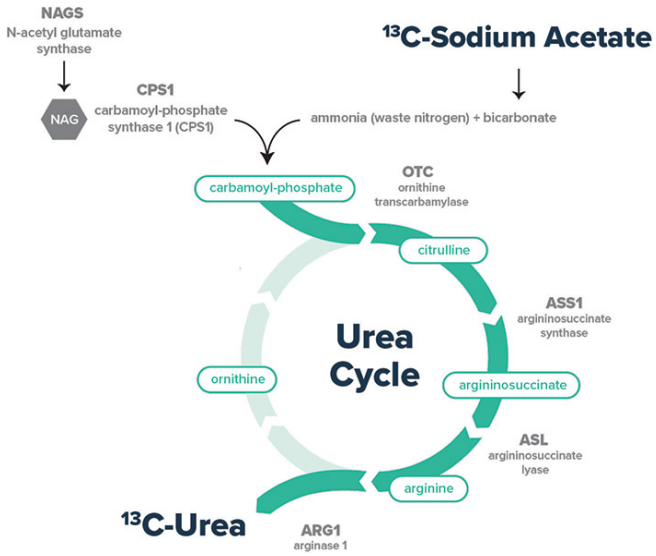
Disease designation to CMP-CPS-001 for the treatment of UCDs in August 2024 and granted orphan drug designation to CMP-CPS-001 for the treatment of UCDs in September 2024.

Urea cycle disorders

UCDs are a group of severe, inherited metabolic diseases caused by mutations in the genes that encode one or more of the eight enzymes and transporters necessary to convert ammonia into urea, which is then excreted from the body. The urea cycle is the key metabolic pathway for removing excess ammonia, a waste by-product of protein metabolism, and toxic—particularly to the central nervous system—from the body. In the liver, nitrogen containing ammonia is converted to urea, which is nontoxic, water-soluble and easily excreted from the body through the kidneys as a component of urine. The inability of the body to properly metabolize ammonia leads to toxic systemic levels in circulation, ultimately resulting in severe health outcomes, such as neurologic disability, seizure and death.

Six enzymes are involved in conversion of ammonia to urea including CPS1, *N*-acetylglutamate synthase, or NAGS, OTC, ASS1, ASL, and arginase 1, or ARG1. In addition, two transporter proteins, ORNT1 and Citrin, play critical roles in the proper functioning of the urea cycle. A genetic aberration, which results in deficiency or reduced function, in any one of these enzymes or transporter proteins results in a UCD and a buildup of ammonia. A schematic representation of the urea cycle is presented below.

The urea cycle converts ammonia into urea

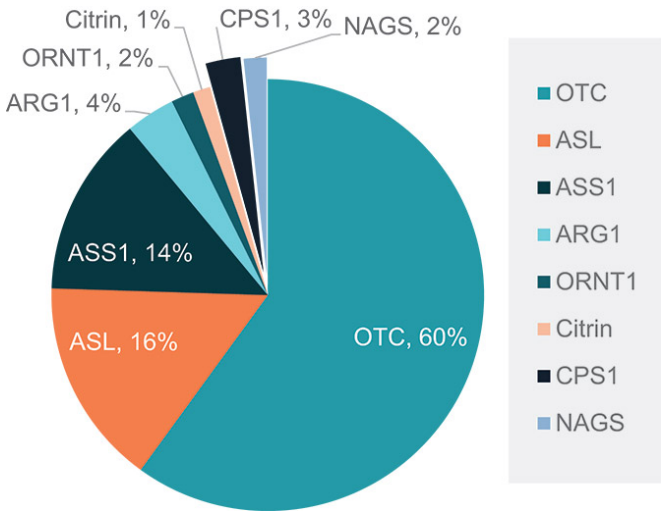


UCDs occur across all age groups, from infants to adults, and mild symptoms may go unnoticed until a stressor, such as illness, surgery, protein consumption or environmental stress, overwhelms compensatory functions, generally resulting in hyperammonemic crisis. We estimate that the prevalence of severe, symptomatic UCDs in the U.S. is approximately 3,700, of which we estimate 90% are late onset and 96% of these late onset patients have enzyme deficiencies we can address. The incidence of UCDs in the U.S. is estimated to be approximately 1 in 35,000 births, with similar prevalence and incidence rates estimated for Europe. The onset and severity of UCDs is highly variable, with severity correlating with the degree of impairment of the conversion of ammonia to urea and inversely with the amount of residual enzyme function. An estimated 10% of patients with UCDs present as neonatal onset, with severe symptom onset presenting before the first month of life, with enzyme levels less than 5% of normal. In neonatal onset UCD, ammonia concentrations in the blood rise rapidly, with the clinical consequences of the disease often presenting within a week of birth. A liver transplant is typically required by six months of age. Patients with late onset forms of the disease may present as severe with numerous

neuropsychological complications including development delays, learning and intellectual disabilities, attention deficit hyperactivity disorder and executive function deficit. Moreover, recurrent hyperammonemic crises are common despite existing supportive management, and acute life-threatening episodes can occur at any age, regardless of disease severity at initial presentation.

The most common UCD, accounting for approximately 60% of UCD diagnoses, is OTC deficiency, caused by mutations in the *OTC* gene. Unlike other UCDs, which are autosomal recessive disorders, OTC enzyme deficiency is an X-chromosome linked disorder. As such, particularly severe cases of the disorder are more prevalent in males, since males only have a single copy of the X chromosome. There are also female carriers for OTC deficiency who are mildly symptomatic and could benefit from our therapy, but these patients are not readily diagnosed nor included in our prevalence estimates. The incidence of OTC deficiency in the U.S. is estimated to be 1 in 56,500 births. The next two most common genetic subtypes are caused by mutations in the genes coding for the enzymes ASS1 and ASL, deficiencies which affect approximately 14% and 16% of UCD patients, respectively.

UCD patient population by deficiency



Current treatments for urea cycle disorders and their limitations

There are no FDA-approved, disease-modifying therapies to treat the most prevalent UCDs. The standard of care is supportive in nature and intended to reduce the frequency, but not eliminate hyperammonemic crises. Current protocols for patients involve efforts to lower plasma ammonia levels. Reduction in plasma ammonia is achieved through nitrogen scavengers to remove excess nitrogen, along with the dosing of supplemental citrulline. When necessary, hemodialysis is used to reduce ammonia concentrations.

Longer-term maintenance regimens involve strict adherence to a low-protein diet along with the prophylactic use of nitrogen scavenger agents that carry an onerous pill regimen and significantly diminish the quality of life for patients. The objective of maintenance therapy is to minimize nitrogen intake while facilitating its removal through alternate pathways. The existing supportive measures are not sufficient, with many patients suffering neurological disability and premature death. A liver transplant, which is usually limited to early onset patients, is intended to prevent further hyperammonemic crises and neuropsychological deterioration and is the only curative treatment, but is available to fewer than 10% of patients.

In addition to approved maintenance therapies, we are aware of several other product candidates in development for the treatment of only a portion of UCDs. These candidates are administered through infusion as they utilize lipid nanoparticle, or LNP, or adeno-associated virus-based, or AAV-based, approaches that target correcting the under-expression of OTC only. Despite the therapeutic potential of these technologies, there is little published

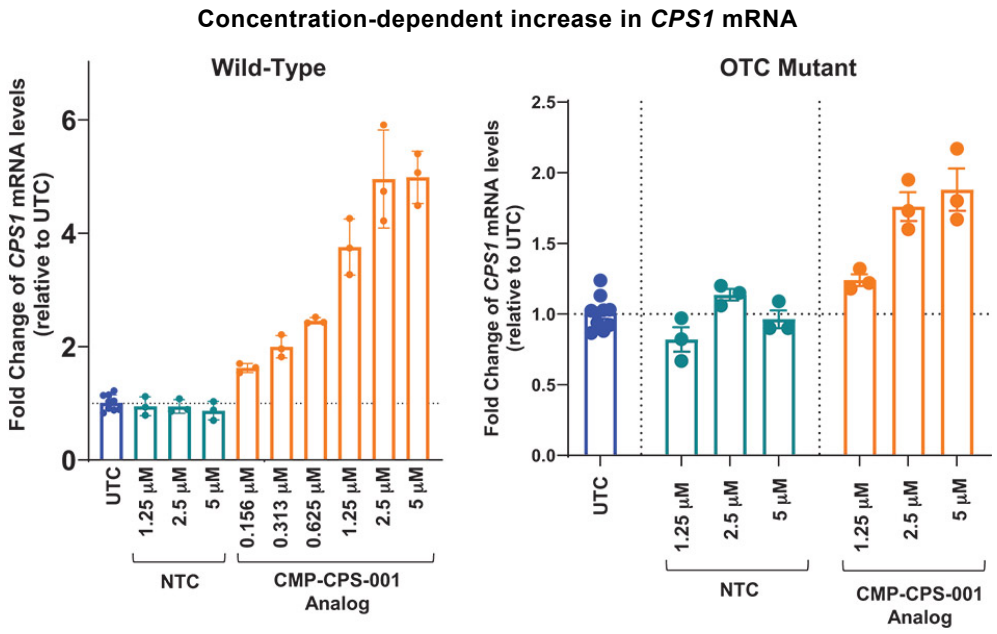
clinical data to date on these programs and some have been hampered by delays. Furthermore, the AAV-based gene therapy approach has an irreversible mechanism of action and is designed to only address OTC deficiency in patients 12 years or older. This could limit initial clinical utility of these AAV-based therapeutics to a small patient pool. Like all AAV-based therapeutics, these product candidates are not able to be redosed due to immunogenicity, potentially limiting their long-term utility. Additionally, there is potential for efficacy waning as liver cells turn over, leaving additional need for other therapeutics to be used in patients where the effects of gene therapy diminish. While LNPs can be redosed, they face the challenge of potential toxicity associated with repeated administration.

Our solution for UCDs: CMP-CPS-001

Our lead product candidate, CMP-CPS-001, is a potentially disease-modifying therapy designed to amplify expression of CPS1, an enzyme that catalyzes the first step of the urea cycle, by binding to a CPS1-specific regRNA. In our preclinical studies, we have demonstrated that modulating the activity of this regRNA increases expression of the *CPS1* gene, causing increased CPS1 enzyme levels, which allows for more ammonia to be converted into urea, thereby lowering ammonia levels to normal, healthy ranges. Our preclinical studies have also demonstrated that CMP-CPS-001 can upregulate the production of multiple enzymes responsible for converting ammonia into urea, potentially allowing us to address more than 85% of patients with UCDs. This includes the OTC deficient patient population as well as ASS1 and ASL, and others, with the exception of CPS1 and NAGS deficiencies.

Our RAP Platform enabled us to (i) identify the key enhancer modulating *CPS1* expression, (ii) screen ASOs directed to the regRNAs expressed by this enhancer, and (iii) generate a RNA Actuator designed to increase *CPS1* expression. We commenced work on the program, identified the CPS1 regulatory RNA target and identified the lead ASO sequence for CMP-CPS-001 in 2021.

We have demonstrated the controllability of our RNA Actuators in *in vitro* and *in vivo* studies. The figures below illustrate the concentration-dependent increase in *CPS1* mRNA achieved by the lead regRNA-targeting ASO in healthy human donor hepatocytes in an *in vitro* study. This ASO, designated “CMP-CPS-001 Analog,” has the same sequence and chemical modifications as CMP-CPS-001, but lacks a GalNAc conjugate, which is not necessary for *in vitro* delivery. In this study, both healthy human donor hepatocytes and OTC mutant hepatocytes were treated with a range of concentrations of the CMP-CPS-001 Analog and *CPS1* mRNA levels were measured and normalized to untreated cells. As depicted in the figures below, the results of this study show that the ASO elevated expression of *CPS1* in a concentration-dependent manner in both wild-type and *OTC* mutant human hepatocytes. The GalNAc-conjugated version of the CMP-CPS-001 Analog is our lead product candidate, CMP-CPS-001.



Error bars represent standard error of the mean; UTC denotes untreated control; NTC denotes non-targeting control.

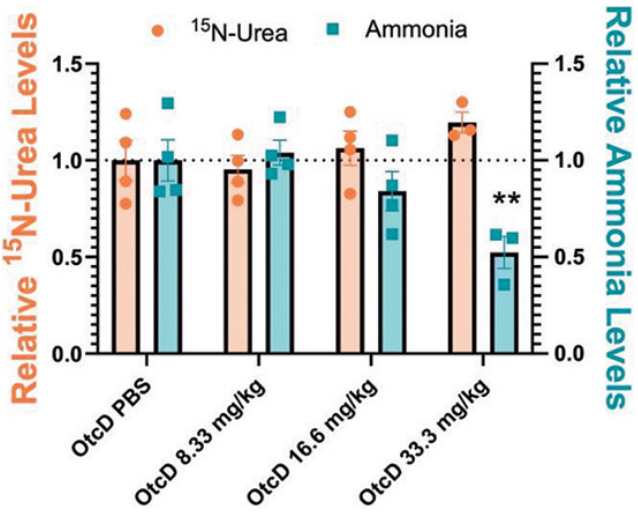
Our preclinical studies

Our preclinical evaluation of CPS1 upregulation in a mouse Otc deficiency model

The Otc$^{spf\text{-}ash}$ mouse is an established animal model of OTC deficiency which carries an *Otc* mutation that reduces Otc expression to less than 10% of wild-type levels. Following an acute ammonia challenge, these mice displayed elevated plasma ammonia levels as compared to wild-type mice. We used this model for proof of concept that elevating the expression of *CPS1* can overcome a deficiency in OTC, the enzyme most commonly mutated in UCDs. We applied our RAP Platform to identify a surrogate ASO targeting mouse *Cps1* regRNA in order to conduct studies in this model.

In the first study, adult Otc$^{spf\text{-}ash}$ mice were administered eight doses (on days 1, 3, 5, 9, 11, 13, 15 and 17) of the ASO specifically engineered to target mouse *Cps1* regRNA, at three different dose levels (8.33 (N=4), 16.6 (N=4) and 33.3 mg/kg (N=3)). A control group received placebo (phosphate-buffered saline, or PBS). Two days after the last dose, the mice were challenged with an injection of ^{15}N-labeled ammonium chloride. Thirty minutes later, blood was drawn to measure total ammonia and ^{15}N-urea levels. Statistical significance between groups was determined using appropriate statistical tests including two-way ANOVA and p-values reported. P-values (or probability values) are used to determine if the outcome of an experiment is statistically significant. A low p-value means that there is a very low likelihood that a given outcome was a result of a random occurrence. A high p-value means that assuming the null hypothesis is true, this outcome was very likely due to random occurence. Generally, a p-value of less than 0.05 (or 5% odds of the event being random) is regarded as statistically significant. In our preclinical studies, p-values of <0.05 were considered statistically significant. In some cases, we identified directional trends in effects that did not meet statistical significance due to limited group sizes, small effect size, and variability. As is depicted in the graph below, treatment of these Otc-deficient mice with the mouse surrogate tool ASO led to a dose-dependent decrease in ammonia, including a 48% decrease at the highest dose level (p<.01), along with a trend toward increased urea synthesis, including a 20% increase at the highest dose level) compared to mice treated with placebo, referred to as phosphate-buffered saline, or PBS. This demonstrates that upregulation of *Cps1* can improve ammonia metabolism in the context of a pathogenic mutation in the downstream *Otc* gene, and that the reduction in toxic ammonia is greater than the increase in urea.

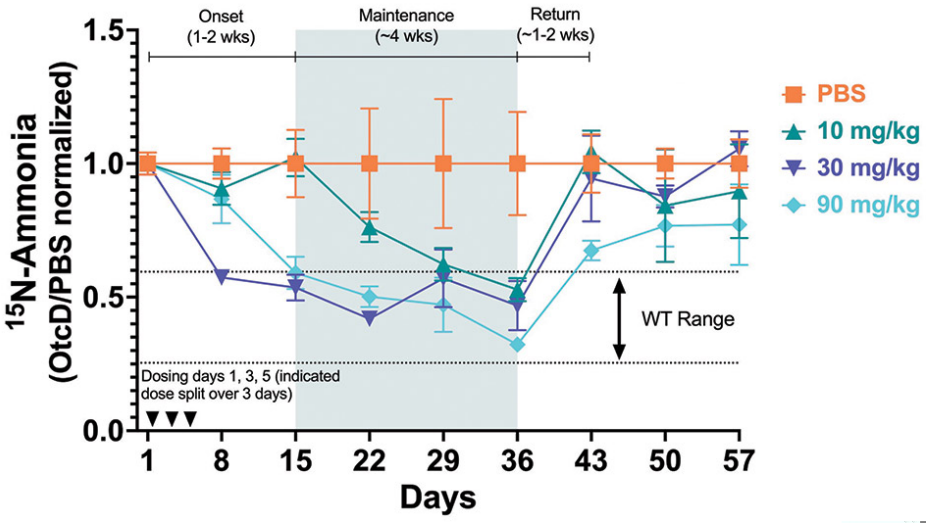
Targeting *Cps1* regRNA with an ASO leads to decreased ammonia levels and increased urea production



** denotes p<.01; OtcD denotes Otc deficiency; PBS denotes phosphate-buffered saline; Error bars represent standard error of the mean.

A second Otc$^{spf\text{-}ash}$ mouse study was conducted to investigate the onset and duration of the pharmacodynamic effect of elevating *Cps1* expression in the context of Otc deficiency. In this study, mice were administered three dose levels of ASO totaling 10, 30 and 90 mg/kg split over three days (days 1, 3 and 5). Control animals received placebo. Ammonia challenges were administered to cohorts of animals prior to dosing and at weekly intervals beginning three days after the final dose for a total of eight weeks. Blood was drawn 30 minutes post-challenge and total ammonia levels were measured. As shown in the figure below, the onset of effect was dose-dependent with ammonia levels reduced to within the range of wild-type animals, or WT Range, by 3, 10 and 22 days post-dose for each of the high, mid and low dose groups, respectively. Ammonia levels approach baseline levels by 5 to 6 weeks post-dose, demonstrating a durable, greater than one month, pharmacodynamic effect. In addition, the impact of ASO treatment on *Cps1* mRNA was assessed, and demonstrated a peak increase of approximately 71% for the high-dose group at day 15 that returned to baseline by day 29. The mid-dose group exhibited an approximately 27% increase in *Cps1* mRNA along with prominent reductions in ammonia. The low-dose group exhibited minimal impact on *Cps1* mRNA at the timepoints tested, had slower onset of ammonia reduction but still exhibited an overall effect. These data demonstrate that significant reductions on ammonia result from modest effects on transcription and associated increased flux through the urea cycle.

Targeting *Cps1* regRNA with an ASO leads to sustained decrease in ammonia levels

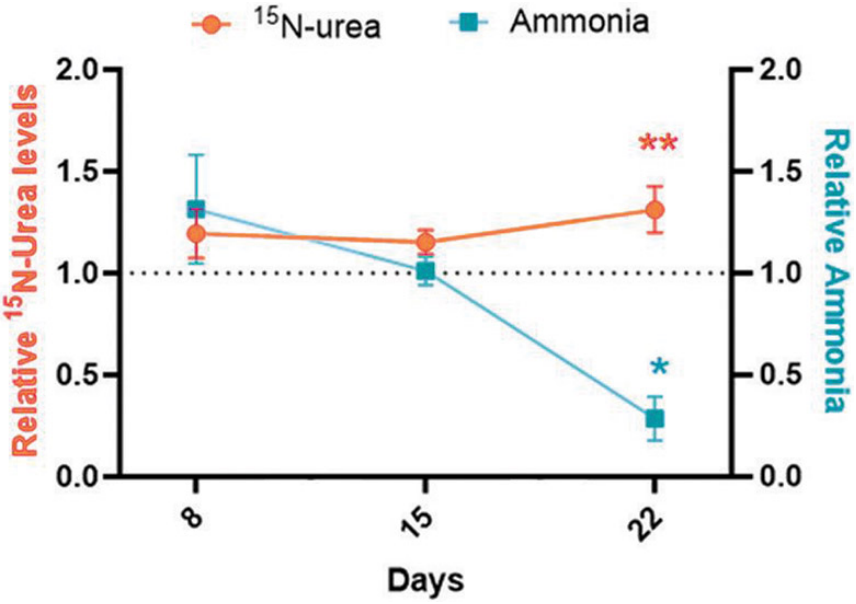


Error bars represent standard error of the mean; PBS denotes phosphate-buffered saline.

Our preclinical evaluation of CMP-CPS-001 in mice with humanized livers

The above studies were conducted using a mouse surrogate ASO that targets mouse *Cps1* regRNA. To assess the impact on ureagenesis of CMP-CPS-001 *in vivo* we utilized mice whose livers had been repopulated with hepatocytes from a healthy human donor. These humanized-liver mice were given a ^{15}N-ammonia challenge on day 1, then administered four doses of 25 mg/kg CMP-CPS-001 on days 8, 12, 15 and 19. In addition to day 1, the mice received ^{15}N-ammonia challenges before dosing on days 8 and 15, and then again on day 22. Total ammonia and ^{15}N-urea were measured at each of these time points. Consistent with the studies using Otc$^{spf\text{-}ash}$ mice involving the mouse surrogate ASO above, the results of this assessment, which are illustrated in the figure below, also demonstrated that CMP-CPS-001 targeting the *Cps1* regRNA produced a statistically significant decrease in ammonia levels (approximately 71% on day 22, $p<.05$) along with increased ureagenesis (approximately 31% on day 22, $p<0.01$). Similar to the Otc-deficient mouse study, this study in wild-type humanized liver mice demonstrated that large decreases in ammonia (approximately 71%) are associated with more modest increases in urea (approximately 31%).

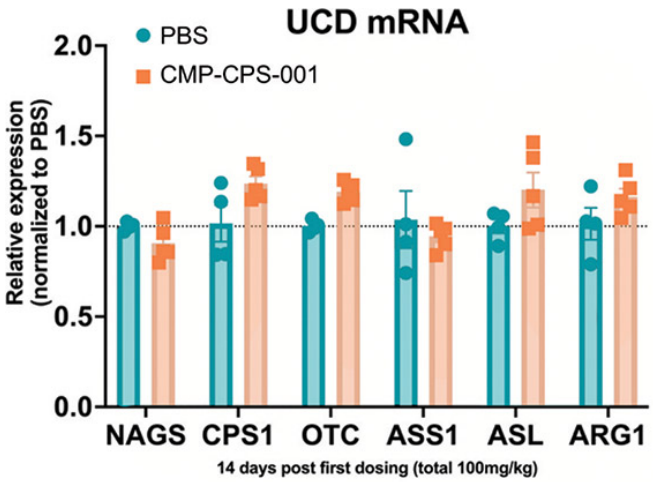
CMP-CPS-001 produced statistically significant changes in levels of ammonia and ureagenesis in wild-type humanized mice compared to placebo treated mice at day 22



Error bars represent standard error of the mean; * denotes p<.05; ** denotes p<.01.

On day 22, animals were sacrificed and livers collected to measure expression levels of CPS1 and other urea cycle enzymes. As shown in the figure below, treatment with CMP-CPS-001 resulted in a directional, though not statistically significant, increase in the expression of *CPS1* by approximately 20%, with a similar increase in *OTC*. In addition, similar elevations of two other urea cycle enzymes (*ASL* and *ARG1*) were observed. This demonstrates that an increase in the expression of *CPS1* can enhance enzymatic activity at multiple stages of the urea cycle, supporting development of CMP-CPS-001 as a potential therapeutic for urea cycle disorders in addition to OTC deficiency. The results of our studies of UCD-relevant mRNA transcription across multiple urea cycle enzymes is presented below.

CMP-CPS-001 increases transcription of mRNA of multiple urea cycle enzymes



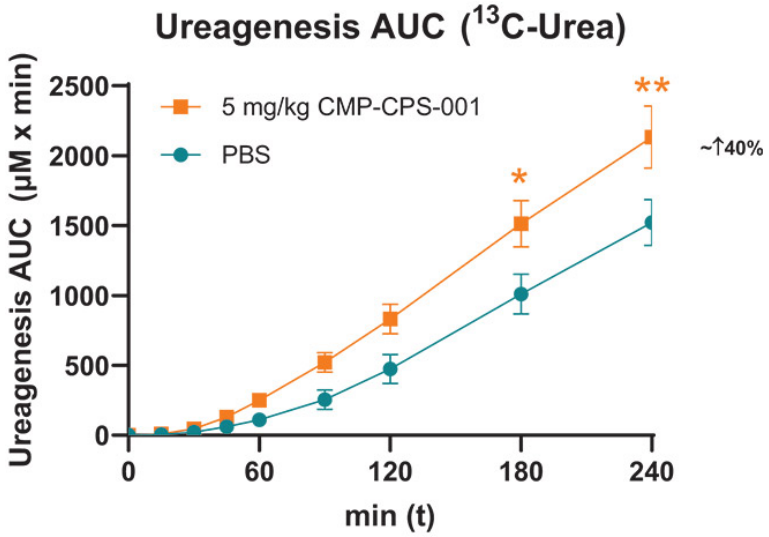
Error bars represent standard error of the mean; PBS denotes phosphate-buffered saline.

An ammonia challenge cannot be utilized in a clinical trial due to safety concerns, as ammonia is an extremely toxic molecule. Instead, the metabolic output of the urea cycle can be assessed by using a URT in which subjects are administered ^{13}C-sodium acetate. Sodium acetate is a salt that is commonly found in food sources and, like ammonia, the carbon is metabolized through the urea cycle and excreted in the urine. ^{13}C-sodium acetate, a labeled isotope of sodium acetate, is ingested by participants as part of the URT to measure the overall activity of the urea cycle, and blood is drawn at multiple time points to measure the amount of ^{13}C-urea that is generated. This measure of ureagenesis represents a clinically meaningful signal of the metabolic output of the urea cycle. An increase in the metabolic output of the urea cycle, as indicated by an increase in the amount of ^{13}C-sodium acetate metabolized, is expected to correlate with an increase in the amount of ammonia metabolized. The rate of ureagenesis is inversely related to the severity of UCD. Studies have shown that while baseline plasma urea levels of asymptomatic carriers of these disorders are indistinguishable from those of healthy volunteers, baseline plasma urea levels among symptomatic patients are significantly lower. Notably, the measurement of ureagenesis in prior clinical trials of therapeutics designed to treat patients with OTC deficiency has been demonstrated to translate well to clinical response. Although preclinical studies suggest increases in urea are less pronounced than decreases in ammonia, we believe ureagenesis is a reliable indicator of therapeutic efficacy. Thus, we have incorporated this assay in ongoing assessments of CMP-CPS-001 in our healthy volunteer Phase 1 clinical trial. Based on our preclinical studies we believe small increases (approximately 20%) in ureagenesis may ultimately translate to meaningful clinical activity in patients in subsequent trials. It is possible that we may observe smaller increases in healthy volunteers, as their ureagenesis rates are operating at full capacity, underrepresenting the potential efficacy when tested in patients with low ureagenesis rates. However, it is possible that an increase in ^{13}C-sodium acetate metabolism, as measured by the URT, will not correlate to an increase in ammonia metabolism and that variability in the results of the assay could render interpretation difficult. For a further discussion of our use of this assay, please see “Risk factors—The outcome of preclinical studies and earlier-stage clinical trials may not be predictive of future results or the success of later preclinical studies and clinical trials.”

Our preclinical evaluation of CMP-CPS-001 in non-human primates

The effect of increased CPS1 production on ureagenesis was also studied in wild-type cynomolgus monkeys. These NHPs were administered two doses of 5 mg/kg CMP-CPS-001, 30 days apart, with urea production measured one week after the second dose. To measure ureagenesis, animals were administered ^{13}C-sodium acetate, and blood was drawn at eight time points over a four-hour period. The concentration of ^{13}C-urea was measured utilizing a URT. As shown below, CMP-CPS-001 treatment increased ureagenesis by 40% compared to those animals administered the placebo ($p<0.05$ at 180 minutes; $p<0.01$ at 240 minutes). As in the humanized mouse study, this study shows that CMP-CPS-001 can increase activity of the urea cycle in wild-type animals. Moreover, the NHP study measured ureagenesis with the same assay being employed in the ongoing Phase 1 clinical trial in healthy volunteers, supporting this approach to measure a pharmacodynamic effect in humans.

CMP-CPS-001 increased ureagenesis compared to placebo in wild-type NHPs



Error bars represent standard error of the mean; PBS denotes phosphate-buffered saline; * denotes p<.05; ** denotes p<.01.

Preclinical safety evaluations

CMP-CPS-001 was evaluated in three-month GLP toxicity studies of both mice and NHPs. Animals were dosed subcutaneously, once monthly for three months. In both species, CMP-CPS-001 was generally well tolerated with all clinical observations considered non-adverse due to low severity and lack of clinical correlates. No observable adverse effects were noted at 12.5 mg/kg and 50 mg/kg dosing, the highest dose levels tested in mice and NHPs respectively. Drug metabolism and pharmacokinetic evaluations reflected findings consistent with the drug class.

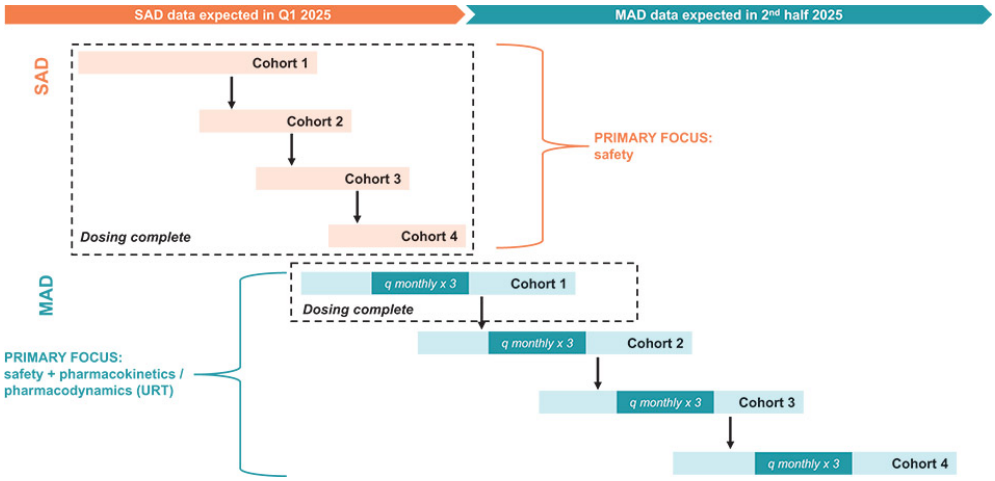
Our ongoing Phase 1 clinical trial

CMP-CPS-001 is currently being evaluated in an approximately 96-person randomized, double-blind, and placebo-controlled Phase 1 clinical trial to evaluate safety, tolerability as well as pharmacokinetics and pharmacodynamics in healthy volunteers in Australia, where we are able to benefit from certain cost-effective tax incentives provided by the Australian government. CMP-CPS-001 is being administered by subcutaneous injection on a monthly basis. Primary endpoints of this trial include safety and tolerability and a secondary endpoint is to assess change in ureagenesis using the same URT utilized in our NHP study. Inclusion of the URT assessment is designed to enable the establishment of URT methodology that can be used to optimize the design of future registrational studies in patients with UCDs as well as enable a reference range of normal ureagenesis rates as both a tool for studies in patients with UCDs and as support for our engagement with regulators.

The SAD portion of the trial is segregated into four cohorts of 10-12 subjects each. Nine subjects in each cohort are to receive CMP-CPS-001 with the additional three subjects to receive placebo. We dosed the first participant in this Phase 1 SAD clinical trial in March 2024. Dosing levels began at 0.2 mg/kg in the first cohort and, per the clinical trial design, increase with each successive cohort unless a maximum tolerated dose is reached, with dose escalation between cohorts only after a two-week safety review committee confirmation of safety and tolerability. Assuming no drug-related adverse events are observed in the first two SAD cohorts, the trial is designed to then initiate an evaluation of CMP-CPS-001 in four MAD cohorts of 12 subjects each, staggered concurrently to the latter SAD cohorts. As is the design for the SAD portion of the Phase 1 clinical trial, the active therapeutic candidate to placebo participant ratio in each cohort of the MAD portion of the Phase 1 clinical trial will be 3:1. Initial dosing levels and dose ranges for the MAD portion of the Phase 1 clinical trial were determined

based on observations from the ongoing SAD trial portion. Dose escalation will occur after a 59-day safety review committee confirmation for the MAD portion of the Phase 1 clinical trial. We expect to report data from all four cohorts of the SAD portion of the trial in the first quarter of 2025 and from the MAD portion of the trial in the second half of 2025.

Phase 1 clinical trial design



Interim Phase 1 clinical trial Data-SAD Cohorts 1 and 2

As of September 2024, the Safety Review Committee, or SRC, of our Phase 1 clinical trial of CMP-CPS-001 has reviewed all reported safety data, including treatment emergent adverse events from SAD cohorts 1 through 3 and approved dose escalation to cohort 4, the highest dose set forth in the trial protocol. We have also completed dosing of all four SAD cohorts and of cohort 1 of the MAD portion of the Phase 1 clinical trial of CMP-CPS-001. A planned, safety-focused interim analysis was performed to evaluate blinded safety data for SAD cohorts 1 and 2 as of August 6, 2024. To date, no safety trends of concern have been observed, and CMP-CPS-001 has been well tolerated.

Planned clinical trials

Assuming the successful completion of our ongoing Phase 1 clinical trial in healthy adult volunteers and regulatory feedback from regulatory agencies, we plan to utilize a stepwise development approach in which we would initiate one or more 52-week Phase 2/3 clinical trials involving CMP-CPS-001, with the potential for an open-label extension. We anticipate the first of these two Phase 2/3 clinical trials to enroll patients, two years of age or older, who have been diagnosed with an OTC, ASL or ASS1 deficiency, to be randomized to either our active therapeutic candidate or to placebo. We currently expect that the Phase 2/3 clinical trial would initially start with adults, and step down by age segment into patients two years or older as required by regulators. Key endpoints are likely to include responder analysis defined as a reduction and/or maintenance in ammonia levels compared to baseline, diet liberalization, nitrogen scavenger reduction, and increase in ureagenesis, along with a maintenance of no or a decrease in clinical episodes during the treatment period. Assuming a positive assessment of the OTC trial results during the interim analysis, we envision initiating a second Phase 2/3 clinical trial expanding enrollment to include ASS1 and ASL deficient patient populations.

CMP-SYNGAP for SYNGAP1-related disorders

Our initial CNS development program, CMP-SYNGAP, aims to address the underlying cause of SYNGAP1-related disorders. CMP-SYNGAP utilizes a novel approach that targets the *SYNGAP1* gene at the transcriptional level designed to restore SYNGAP function. We are advancing our CMP-SYNGAP program to address the significant unmet

need for these patients by targeting the direct cause of SYNGAP1-related disorders, haploinsufficiency, which we believe is amenable to treatment by targeting SYNGAP1 regRNAs. We expect to initiate final GLP toxicology studies in 2025 to enable the filing of a clinical trial application.

SYNGAP1-related disorders

Synaptic Ras GTPase activating protein, or SYNGAP, plays a critical role in the development of cognition and proper synaptic function, enabling synaptic plasticity and axon formation through signal attenuation. SYNGAP1-related disorders are a group of neurodevelopmental conditions caused by pathogenic variants in the *SYNGAP1* gene leading to a haploinsufficient state that reduces SYNGAP protein levels by as much as 50%. A majority of these SYNGAP1 pathogenic variants, or mutations, are mutations that result in truncation of the protein or destruction of the RNA by nonsense-mediated decay, ultimately resulting in lower protein levels and haploinsufficiency. These disorders can manifest with a variety of symptoms that can include developmental delays, movement disorders and features of autism spectrum disorder. Epilepsy is a common feature of SYNGAP1-related disorders, occurring in more than 95% of children with the condition, with seizures usually beginning in early childhood. Nearly all children have some degree of developmental delay and cognitive impairment, though disease symptoms and their severity vary widely. SYNGAP1-related disorders are autosomal dominant with clinical disease presentation if either of the two alleles have a mutation. In most cases the pathogenic variant occurs spontaneously and is not inherited. Patient estimates for SYNGAP1-related disorders vary significantly. We estimate that 5,000 individuals have been diagnosed with these disorders in the U.S., though we believe many more with mild symptoms remain undiagnosed and are not included in this estimate. Incidence estimates of SYNGAP1-related disorders range from 1 to 40 in 100,000 individuals and the disorder is reported to represent 0.5% to 1.0% of all intellectual disability cases.

Current treatments and their limitations

There is currently no FDA-approved treatment, disease-modifying or otherwise, for SYNGAP1-related disorders. There is also no definitive treatment protocol, which is dependent on seizure type and severity and other neurological characteristics of the disease. Treatment is often limited to supportive physical, occupational and speech therapy. A combination of anti-seizure medications may be prescribed to treat seizures, though SYNGAP1-related disorders have proven difficult to control with available therapeutics. As many as 50% of patients do not adequately respond to medication in which case implantable devices, such as those for vagus nerve stimulation, may offer incremental therapeutic benefit.

Our solution

Our CMP-SYNGAP program is a novel approach that targets the *SYNGAP1* gene at the transcriptional level to restore SYNGAP function and improve symptoms. We are advancing our CMP-SYNGAP program to address the significant unmet need for these patients by targeting the direct cause of SYNGAP1-related disorders, haploinsufficiency, which we believe is amenable to targeting through regRNAs. As haploinsufficiency characterizes SYNGAP1-related disorders, upregulation of *SYNGAP1* gene expression may enable an increase in protein levels which may yield therapeutic benefit, including potential improvements to memory and incidence of seizures. Our CMP-SYNGAP program utilizes an intrathecally delivered ASO for the treatment of SYNGAP1-related disorders. We have identified specific regRNA sequences involved in *SYNGAP1* transcription and have leveraged our RAP Platform to generate ASOs that function to increase *SYNGAP1* transcription.

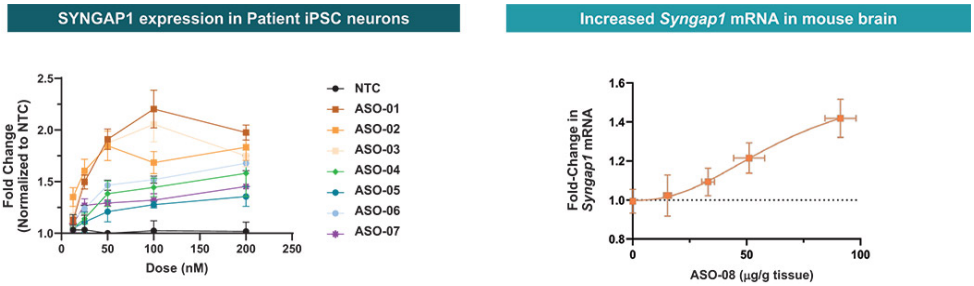
Our preclinical studies

We are currently pursuing parallel workstreams to identify both tool ASOs for mouse proof-of-concept studies, as well as human-specific ASOs as drug candidates to assess the clinical effect of ASOs on *SYNGAP1* levels in both patient-derived neurons and mice expressing human *SYNGAP1*.

Lead human-specific ASOs have been identified that increase *SYNGAP1* mRNA in human neurons *in vitro* as shown in the figure below (left). In addition, a mouse tool ASO was administered by intracerebroventricular injection to neonatal mice with the goal of confirming an ability to increase *Syngap1* expression. Assessment of

brain tissue revealed a dose-dependent increase in *Syngap1* mRNA levels three weeks post-dose. These findings are presented in the graph below (right). Future studies will evaluate the impact of increased *Syngap1* expression on functional deficits caused by haploinsufficiency.

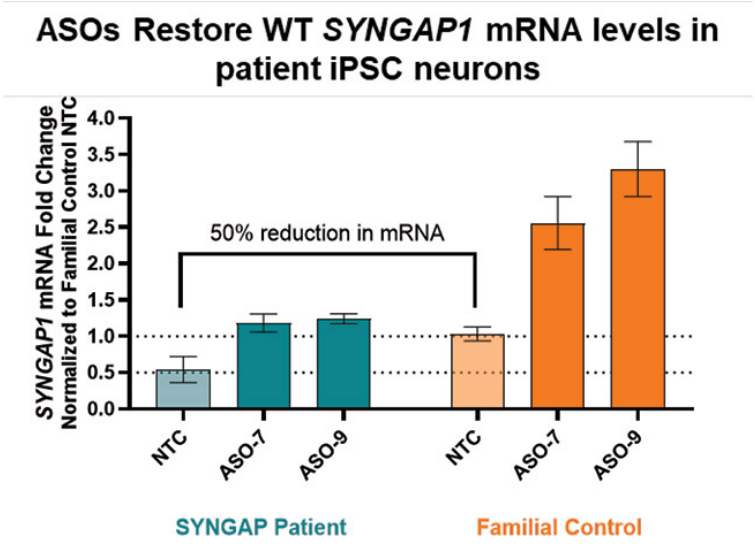
Dose-dependent increase in *Syngap1* mRNA in the brains of mice



Error bars represent standard error of the mean; NTC denotes non-targeting control.

Vertical error bars represent standard deviation of fold change increase in mRNA; Horizontal error bars represent standard deviation of measured ASO concentration.

As part of our assessment of lead human-specific ASOs in human neurons *in vitro*, we have confirmed that SYNGAP1 patient-derived induced pluripotent stem cell, or iPSC, neurons exhibit one-half as much *SYNGAP1* mRNA as those derived from a familial control iPSC neurons. Two representative lead ASOs demonstrated robust target engagement where they increased *SYNGAP1* mRNA at least two-fold in both control and mutant neurons, where *SYNGAP1* mRNA levels were fully restored to wild-type levels. We are continuing to explore electrophysiological and biochemical phenotypes in iPSC neurons *in vitro* to link increases in expression to benefits in disease-relevant phenotypes.



Error bars represent standard deviation of fold change increase in *SYNGAP1* mRNA levels; NTC denotes non-targeting control. ASO-7 and ASO-9 denote two lead candidate ASOs of our CMP-SYNGAP program.

We expect to initiate final GLP toxicology studies in 2025 to enable the filing of a clinical trial application.

CMP-FH: Program for the treatment of heterozygous familial hypercholesterolemia

Our CMP-FH program was focused on developing an RNA Actuator as a disease-modifying therapy to lower LDL-c levels for the treatment of FH. FH is a group of genetic disorders that leads to an increase in LDL-c levels, due in part to reduced levels of LDLR in the liver, thereby diminishing liver-mediated removal of LDL-c.

Our CMP-FH program utilized a GalNAc-conjugated, subcutaneously delivered ASO designed to increase the expression of LDLR, to enhance liver-mediated removal of LDL-c levels. Leveraging our RAP Platform, we identified the key regRNAs that modulate *LDLR* expression and generated multiple lead RNA Actuators that increase the expression of LDLRencoding mRNA and the corresponding protein. Our *in vivo* preclinical studies demonstrated that increased transcription of LDLR led to a meaningful increase in LDLR protein synthesis and lowering of LDL-c, providing evidence of our therapeutic approach. In August 2024, we determined based on emerging nonhuman primate preclinical data that although our current product candidate as a monotherapy was generally well tolerated, it would be unlikely to match the magnitude of benefit that has been observed with currently available therapeutics. As a result, at this time, we made the strategic decision to focus our development resources on advancing CMP-CPS-001 and our CMP-SYNGAP program.

Manufacturing strategy

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We rely on third- party contract manufacturers for the manufacture of our product candidate for our clinical trials, and, if we receive marketing approval, we will rely on such third parties for commercial manufacture. In addition, we rely on third parties to package, label, store and distribute our product candidate, and we intend to rely on third parties for our commercial products if marketing approval is obtained. We expect this strategy will enable us to maintain a more efficient infrastructure, avoiding dependence on our own manufacturing facility and equipment, while simultaneously enabling us to focus our expertise on the clinical development and future commercialization of our products. Chemistry, Manufacturing and Controls, or CMC, is a critical element of the drug development process and involves the various procedures used to assess the physical and chemical characteristics of drug products, to ensure their quality and consistency throughout manufacture. CMC increases in complexity as the development process matures.

License and collaboration agreements

Whitehead Institute patent license agreement

In October 2019, we and the Whitehead Institute for Biomedical Research (the “Whitehead Institute”) entered into a patent license agreement (as amended in December 2021 and November 2023, the “Whitehead Agreement”) pursuant to which we received a worldwide, royalty-bearing, sublicensable license under certain patent rights owned or controlled by the Whitehead Institute to develop, make, have made, use, sell, offer to sell, lease and import products, and to perform and have performed licensed processes, in each case, in the fields of human and animal therapeutics and diagnostics. The license granted under the Whitehead Agreement included an exclusive license to certain patent rights generally related to, among other things, methods of modulating gene expression using oligonucleotides, and a co-exclusive license to certain patent rights generally relating to, among other things, methods of modulating gene expression by targeting certain genomic sequences.

Under the Whitehead Agreement, the Whitehead Institute retains the right to practice the licensed patent rights for research, teaching, and other educational purposes, including use in third-party sponsored research, and to grant non-exclusive licenses to other nonprofit and academic institutes solely for non-commercial research, teaching, and other educational purposes. The license granted to us under the Whitehead Agreement is also subject to certain rights held by the U.S. government under applicable law with respect to inventions that arose from federal research funding. In addition, the license is subject to a certain non-exclusive license for internal research purposes only that the Whitehead Institute granted to a certain third party, and to certain preexisting rights held by a certain third party who is a party to a certain sponsored research agreement, or SRA, with the Whitehead Institute. Under the SRA, the Whitehead Institute covenanted not to sue said third party if certain inventions

arising under the SRA, or SRA inventions, are dominated by the licensed patent rights and we are thereby excluded from asserting certain patent rights licensed from the Whitehead Institute that cover the SRA inventions against said third party.

We are obligated to use certain efforts to develop one or more products or licensed processes and commercialize the products or licensed processes in a major market. Furthermore, beginning five years from the effective date and subject to certain terms and conditions, the Whitehead Agreement requires us to negotiate and potentially issue mandatory sublicenses to a third party under the exclusively licensed patent rights to make, have made, use, sell, offer to sell, or import a product or process that is not directly competitive with a licensed product or licensed process then offered for sale or in bona fide research or development by or on behalf of us.

Under the terms of the Whitehead Agreement, we paid to the Whitehead Institute an upfront license issuance fees of $0.1 million and de minimis additional fees in connection with each of the December 2021 and November 2023 amendments to the agreement that were recorded as research and development expense in our consolidated statement of operations and comprehensive loss. We are also obligated to make annual license maintenance fees under the agreement, pursuant to which we have paid an aggregate of $0.16 million through December 31, 2023. In addition, we are obligated to pay certain filing, prosecution and maintenance fees with respect to certain patent rights licensed to us under the agreement, pursuant to which we have paid an aggregate of $0.22 million through December 31, 2023. We are obligated to pay potential development milestone payments of up to an aggregate of $1.9 million under the terms of the agreement upon the achievement of certain specified contingent events. In addition, if we successfully commercialize a product under the Whitehead Agreement, then we will be required to pay the Whitehead Institute tiered royalties at percentage rates ranging from less than one percent to the mid-single digits of net sales or of running royalties of net sales, subject to specified reductions, until either the last-to-expire valid claim of a Whitehead Institute patent covering the product or seven years after the first commercial sale, in each case on a product-by-product and country-by-country basis.

The expected termination of the royalty obligations will depend on factors such as the availability and application of patent term extensions for the licensed patents in the licensed territory. The Whitehead Agreement will remain in effect until voluntarily terminated by the company and may be earlier terminated by the Whitehead Institute if the company fails to pay any amounts due under the agreement or materially breaches the agreement and fails to cure such breach. The last to expire patent, if issued, under the Whitehead Agreement, is expected to expire in 2043.

Competition

The biotechnology and pharmaceutical industries have made substantial investments in recent years into the rapid development of novel treatments for metabolic and CNS-related diseases and disorders.

We face substantial competition from multiple sources, including large and specialty pharmaceutical and biotechnology companies, academic research institutions and governmental agencies and public and private research institutions. Our competitors compete with us on the level of the technologies employed, or on the level of development of product candidates. In addition, many small biotechnology companies have formed collaborations with large, established companies to (i) obtain support for their research, development and commercialization of products or (ii) combine several treatment approaches to develop longer lasting or more efficacious treatments that may potentially directly compete with our current or future product candidates. We anticipate that we will continue to face increasing competition as new therapies and combinations thereof, technologies, and data emerge within the field of antisense oligonucleotide therapeutics and, furthermore, within the treatment of metabolic and CNS-related diseases and disorders.

In addition to the current standard-of-care treatments to address the diseases we are targeting in therapeutic development programs, numerous commercial and academic preclinical studies and clinical trials are being undertaken by a large number of parties to assess novel technologies and product candidates.

For the broad treatment of patients with UCDs, we will compete with Amgen Inc., who has commercialized Ravicti, a nitrogen scavenger. Other therapeutics in development are focused on patients with OTC deficiency only, where we will potentially compete with Ultragenyx Pharmaceutical Inc., Arcturus Therapeutics Holdings Inc., and iECure, among others, assuming they are successful in clinical development. Ultragenyx Pharmaceutical Inc. is developing their potential therapy in OTC patients aged 12 and older; and iECure is initially targeting neonatal patients only. Companies that compete with us directly on the level of the development of product candidates targeting SYNGAP1-related disorders include Stoke Therapeutics, Inc. and Praxis Precision Medicines, Inc. Companies engaged in the commercialization and development of antisense oligonucleotides as therapeutics include Alnylam Pharmaceuticals, Inc. and Ionis Pharmaceuticals Inc.

Many of our competitors, either alone or in combination with their respective strategic partners, have significantly greater financial resources and expertise in research and development, manufacturing, the regulatory approval process, and marketing than we do. Mergers and acquisition activity in the pharmaceutical, biopharmaceutical and biotechnology sector is likely to result in greater resource concentration among a smaller number of our competitors. Smaller or early-stage companies may also prove to be significant competitors, particularly through sizeable collaborative arrangements with established companies. These competitors also compete with us in recruiting and retain qualified scientific and management personnel and establishing clinical trial sites and patient registration for clinical trials, as well as in acquiring technologies complementary to, or necessary for, our programs.

Our commercial opportunity could be reduced or eliminated if one or more of our competitors develop and commercialize products that are safer, more effective, better tolerated, or of greater convenience or economic benefit than our proposed product offering. Our competitors also may be in a position to obtain FDA or other regulatory approval for their products more rapidly, resulting in a stronger or dominant market position before we are able to enter the market. The key competitive factors affecting the success of all of our programs are likely to be product safety, efficacy, convenience and treatment cost.

Intellectual property

We believe that our intellectual property estate is a strategic asset that has the potential to provide us with a competitive advantage. We strive to protect and enhance the proprietary technology, inventions and improvements that we believe are important to our business, including pursuing, maintaining and defending patent rights, whether developed internally or licensed from third parties. We also rely on trade secrets and know-how relating to our proprietary technology and product candidates, continuing technological innovation and in-licensing opportunities to develop, strengthen and maintain our proprietary and intellectual property position. We additionally may rely on data exclusivity, market exclusivity and patent term extensions, when available, and plan to seek and rely on regulatory protection afforded through orphan drug designations. Our commercial success may depend in part on our ability to obtain and maintain patent and other proprietary protection for our technology, inventions, and improvements; to preserve the confidentiality of our trade secrets; to defend and enforce our proprietary rights, including our patents; and to operate without infringing on the valid and enforceable patents and other proprietary rights of third parties.

Our wholly owned and in-licensed patent portfolio includes patent rights covering various aspects of our RAP Platform and current product candidates, and certain legacy programs the company is no longer pursuing. As of September 4, 2024, our patent portfolio consists of 25 patent families, including 2 owned U.S. issued patents, 16 in-licensed U.S. issued patents, 24 in-licensed foreign issued patents, 20 owned or in-licensed U.S. pending patent applications (including provisional patent applications), 42 owned or in-licensed foreign pending patent applications, and four owned or in-licensed pending Patent Cooperation Treaty applications, or PCT applications, that have not entered national phase. Our objective is to continue to expand our patent portfolio to protect our technology, inventions, improvements and current and future product candidates. Examples of the product candidates and technology areas covered by our intellectual property portfolio are described below.

Program-related intellectual property

The program-related patent rights in our patent portfolio provide coverage for product candidates designed to address certain diseases and disorders. The program-related patent applications for our lead programs include those described below. Each of the program-related patent applications described below is wholly owned by us.

CMP-CPS-001 program

Our lead product candidate, CMP-CPS-001, is designed to amplify CPS1 expression. As of September 4, 2024, we owned two U.S. non-provisional patent applications and fourteen foreign patent applications in Australia, Brazil, Canada, China, Eurasia, Europe, Israel, India, Japan, South Korea, Mexico, New Zealand, Singapore and South Africa relating to compositions of matter, including CMP-CPS-001, designed to amplify CPS1 expression, and methods of treating UCDs. Each of these patent applications are national or regional phase applications based on a PCT application filed in December 2022, and claiming priority to two separate U.S. provisional patent applications, the earliest of which was filed in December 2021. We expect patents issuing from or claiming priority to these patent applications, if any, to expire in 2042, excluding any patent term adjustments or extensions.

CMP-SYNGAP program

Our CMP-SYNGAP program aims to amplify SYNGAP1 expression. As of September 4, 2024, we owned one pending PCT application filed in December 2023, which claims priority to a U.S. provisional patent application filed in December 2022, as well as two pending U.S. provisional patent applications filed in June 2024, each relating to compositions of matter, including ASOs designed to amplify SYNGAP1 expression, and methods of treating SYNGAP1-related disorders. We expect patents claiming priority to these patent applications, if any, to expire between 2043 and 2045, excluding any patent term adjustments or extensions.

CMP-FH program

Our CMP-FH program aimed to amplify LDLR expression. As of September 4, 2024 we owned two pending provisional U.S. patent applications filed in May 2024 relating to compositions of matter, including ASOs designed to amplify LDLR expression, and methods of treating familial hypercholesterolemia. We expect patents claiming priority to these patent applications, if any, to expire between 2044 and 2045, excluding any patent term adjustments or extensions.

In addition to our programs listed above, we also have patent applications relating to ASO compositions directed to regRNAs involved in the transcription of additional gene targets and their use for treating additional diseases or disorders that may benefit from upregulation of gene expression. As of September 4, 2024 we owned one U.S. non-provisional patent application and eight foreign patent applications in Australia, Canada, China, Europe, Israel, India, Japan and Mexico relating to compositions and methods for treating urea cycle disorders. Each of these patent applications are national or regional phase applications based on a PCT application filed in September 2022, which claims priority to two separate provisional U.S. patent applications, the earliest of which was filed in September 2021. We expect patents issuing from or claiming priority from these pending patent applications, if any, to expire in 2042, excluding any patent term adjustments or extensions. As of September 4, 2024, we owned one pending PCT application filed in June 2023, claiming priority to three separate U.S. provisional patent applications, the earliest of which was filed in June 2022, which relates to compositions and methods for treating several diseases and disorders including frontotemporal dementia. We expect patents claiming priority from this pending application, if any, to expire in 2043, excluding any patent term adjustments or extensions. As of September 4, 2024, we owned one PCT application filed in November 2023, claiming priority to a U.S. provisional patent application filed in November 2022, which relates to compositions and methods for treating cholestatic liver disease. We expect patents claiming priority from this pending application, if any, to expire in 2043, excluding any patent term adjustments or extensions.

Platform-related intellectual property

In addition to the program-related intellectual property, our intellectual property portfolio includes know-how and patent applications directed to our RAP Platform and other technologies developed internally or in-licensed from the Whitehead Institute for Biomedical Research, or the Whitehead Institute. Exemplary platform technologies that are subject to such patent applications include methods of modulating gene expression using oligonucleotides, methods for characterizing enhancer-promoter pairs, and methods for modulating condensate-dependent transcription. These platform technologies, and our intellectual property portfolio related thereto, relate broadly to our existing product candidates and those we may develop in the future.

We continually assess and refine our intellectual property strategy as we develop new product candidates and technologies. To that end, we expect to file additional patent applications in support of current and new product candidates as well as new technologies.

Our ability to stop third parties from making, using, selling, marketing, offering to sell, importing, and commercializing our product candidates and technology is dependent upon the extent to which we have rights under valid and enforceable patents and other intellectual property rights that cover our product candidates and technology. We cannot predict whether or when our owned or licensed pending and future patent applications will result in the issuance of patents, nor can we predict whether any patents that may be granted to us in the future will be commercially useful in protecting our product candidates and technology.

The terms of individual patents depend upon the legal term of the patents in the countries in which they are obtained. In most countries in which we file, including the U.S., the patent term is 20 years from the earliest date of filing a non-provisional patent application. In the U.S., a patent's term may be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the U.S. Patent and Trademark Office, or USPTO, in granting a patent, or may be shortened if a patent is terminally disclaimed over an earlier-filed patent.

In the U.S., the term of a patent that covers 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 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 jurisdiction where they are available, however there is no guarantee that the applicable authorities, including the FDA in the U.S., will agree with our assessment that such extensions should be granted, and 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 and intellectual property position. However, trade secrets can be difficult to protect. Although we take steps to protect our proprietary information, including entering into agreements with our employees, corporate collaborators, external scientific collaborators, contract manufacturers, consultants, advisors, and other third parties, such individuals may breach such agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. In addition, 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 proprietary information.

Government regulation in the United States

The FDA and other regulatory authorities at federal, state and local levels, as well as in foreign countries, extensively regulate, among other things, the research, development, testing, manufacture, pricing, reimbursement, sales, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, post-approval monitoring and reporting and import and export of drugs. We, along with our contract manufacturers, or CMOs, contract research organizations, or CROs, and third-party vendors, will be required to satisfy these requirements in each of the countries in which we wish to conduct studies or seek approval of our product candidates. The process of obtaining marketing approvals and the subsequent compliance with appropriate federal, state, local, and foreign statutes and regulations require the expenditure of substantial time and financial resources.

In the U.S., the FDA regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, as amended, and its implementing regulations. Drugs are also subject to other federal, state and local statutes and regulations. FDA

clearance of an Investigational New Drug, or IND, application must be obtained before commencing clinical testing of a new drug in the U.S. FDA approval also must generally be obtained before a drug may be legally marketed in the U.S.

Failure to comply with applicable regulatory requirements at any time during the product development, approval, or post-approval processes, could result in delays in the conduct of clinical trials or regulatory review and approval, as well as administrative or judicial sanctions or other legal consequences. These sanctions or consequences could include, among other things, the FDA's refusal to approve pending applications, issuance of clinical holds for planned or ongoing studies, suspension or revocation of existing product approvals, issuance of warning or untitled letters, adverse publicity, product withdrawals or recalls, marketing restrictions, product seizures, total or partial suspensions of manufacturing or distribution, import detentions or refusals, injunctions, fines, government investigations, civil penalties or criminal prosecution.

U.S. development process

The process for seeking approval to market and distribute a new drug in the U.S. generally involves the following:

- completion of nonclinical laboratory tests and animal studies according to GLP requirements and applicable requirements for the humane use of laboratory animals or other regulations;
- completion of the manufacture, under current Good Manufacturing Practices, or cGMPs, conditions of the drug substance and drug product that the sponsor intends to use in human clinical trials along with required analytical and stability testing;
- submission to the FDA of an IND application, which must become effective before human clinical trials may begin;
- approval by an institutional review board, or IRB, reviewing each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials according to Good Clinical Practices, or GCPs, and any additional requirements for the protection of human research subjects and their health information, to establish the safety and efficacy of the drug for its intended use;
- preparation and submission to the FDA of a New Drug Application, or NDA, requesting marketing approval for one or more proposed indications, including submission of detailed information on the chemistry, manufacture and quality controls of the product in clinical development and proposed labeling;
- satisfactory completion of one or more FDA pre-approval inspections of the manufacturing facility or facilities where the drug will be produced, including those of third parties, to assess compliance with cGMP requirements;
- potential FDA audit of the nonclinical and clinical study sites that generated the data in support of the NDA to assess compliance with GLP and GCP and the integrity of clinical data in support of the NDA;
- payment of user fees under the Prescription Drug User Fee Act, or PDUFA, unless exempted;
- FDA review and approval of the NDA, including consideration of the views of any FDA advisory committee, prior to any commercial marketing or sale of the drug in the U.S.; and
- compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy, or REMS, and the potential requirement to conduct post approval studies.

Before testing any drug in humans, the product candidate enters the preclinical testing stage. Nonclinical tests include laboratory evaluations of drug chemistry, formulation and stability, as well as in vitro and animal studies to assess safety and in some cases to establish the rationale for therapeutic use. The conduct of nonclinical studies is subject to federal and state regulation, including GLPs. The clinical study sponsor must submit the results of the nonclinical tests, together with manufacturing information, analytical data, any available clinical data or

literature, and a proposed clinical protocol, to the FDA as part of the IND. Some nonclinical testing typically continues after the IND is submitted.

An IND is an exemption from the FDCA that allows an unapproved product to be shipped in interstate commerce for use in an investigational clinical trial and a request for FDA authorization to administer an investigational product to humans. The IND must become effective before clinical trials may begin. The IND automatically becomes effective 30 days after receipt by the FDA, unless before that time the FDA raises concerns or questions about the product or conduct of the proposed clinical trial, including concerns that human research subjects will be exposed to unreasonable health risks. If the FDA raises concerns or questions either during the initial 30-day period, or at any time during the IND review process, it may choose to impose a clinical hold. In such a case, the IND sponsor and the FDA must resolve any outstanding concerns before the clinical trial can begin. As a result, submission of an IND may or may not result in FDA authorization to begin a clinical trial, or to begin a clinical trial on the terms originally specified by the sponsor in the IND. A separate submission to an existing IND must also be made for each successive clinical trial conducted, and the FDA must grant permission, either explicitly or implicitly by not objecting, before each clinical trial can begin.

Clinical trials may involve the administration of the drug product candidate to healthy volunteers or subjects under the supervision of qualified investigators. Clinical trials involving some products for certain diseases, including some rare diseases may begin with testing in patients with the disease. Clinical trials are conducted under protocols detailing, among other things, the objectives of the clinical trial, dosing procedures, subject selection, and exclusion criteria, and the parameters to be used to monitor subject safety, including stopping rules that assure a clinical trial will be stopped if certain adverse events should occur. Each protocol and any amendments to the protocol must be submitted to the FDA as part of the IND. Clinical trials must be conducted and monitored in accordance with the FDA's regulations comprising the GCP requirements, including the requirement that all research subjects or his or her legal representative provide informed consent. Further, each clinical trial must be reviewed and approved by an independent IRB, at or servicing each institution at which the clinical trial will be conducted. An IRB is charged with protecting the welfare and rights of study participants and considers such items as whether the risks to individuals participating in the clinical trials are minimized and are reasonable in relation to anticipated benefits. The IRB also approves the form and content of the informed consent that must be signed by each clinical trial subject or his or her legal representative and must monitor the clinical trial until completed.

Some clinical trials also include oversight by an independent group of qualified experts organized by the clinical trial sponsor, known as a data safety monitoring board or data monitoring committee. 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 data from the trial to which only the group has access.

Human clinical trials are typically conducted in three sequential phases that may overlap or be combined:

- ***Phase 1***. The drug is initially introduced into healthy human subjects and tested for safety, including adverse effects, dose tolerance, absorption, metabolism, distribution, excretion and pharmacodynamics. In the case of some products for rare diseases, the initial human testing is often conducted in patients.
- ***Phase 2***. The drug is evaluated in a limited patient population to identify possible adverse effects and safety risks, preliminarily evaluate the efficacy of the product for specific targeted diseases, and determine dosage tolerance, optimal dosage, and dosing schedule. 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***. 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 further evaluate dosage, provide substantial evidence of clinical efficacy and further test for safety, in a diverse patient population at multiple, geographically dispersed clinical trial sites. A well-controlled, statistically robust Phase 3 trial may be designed to deliver the data that regulatory authorities will use to decide whether or not to approve, and, if approved, how to appropriately label a product candidate.

In some cases, the FDA may approve an NDA for a product 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 trials are used to gain additional experience from the treatment of patients in the intended therapeutic indication and to document a clinical benefit for products approved under accelerated approval regulations. The failure to exercise due diligence with regard to conducting Phase 4 clinical trials could result in withdrawal of approval for products.

During all phases of clinical development, the FDA requires extensive monitoring and auditing of all clinical activities, clinical data, and clinical trial investigators. Annual progress reports detailing the results of the clinical trials must be submitted to the FDA. Written IND safety reports must be promptly submitted to the FDA and the investigators for serious and unexpected adverse events, any findings from other studies, tests in laboratory animals or in vitro testing that suggest a significant risk for human subjects, or any clinically important increase in the rate of serious suspected adverse reactions over those 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 such reporting. The sponsor also must notify the FDA of any unexpected fatal or life-threatening suspected adverse reaction within 7 calendar days after the sponsor's initial receipt of the information. Phase 1, Phase 2, and Phase 3 clinical trials may not be completed successfully within any specified period, if at all. At any time while clinical trials are ongoing under the IND, the FDA may impose a partial or complete clinical hold. Clinical holds may be imposed when there is concern for patient safety, and may be a result of new data, findings, or developments in clinical, nonclinical, and/or chemistry, manufacturing and controls or where there is non-compliance with regulatory requirements. If the FDA imposes a clinical hold, trials may not recommence without FDA authorization and then only under terms authorized by the FDA. Similarly, an IRB can suspend or terminate approval of a clinical trial at its institution if the clinical trial is not being conducted in accordance with the IRB's requirements and either the IRB or the data safety monitoring board may suspend a clinical trial at any time on various grounds, including a finding that the research subjects or patients are being exposed to an unacceptable health risk.

During the development of a new drug, sponsors are given opportunities to meet with the FDA at certain points. These points may be prior to submission of an IND, at the end of Phase 2, and before an NDA is submitted. Meetings at other times may be requested. These meetings can provide an opportunity for the sponsor to share information about the data gathered to date, for the FDA to provide advice, and for the sponsor and the FDA to reach agreement on the next phase of development.

Concurrent with clinical trials, companies must finalize a process for manufacturing the drug product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the product candidate and manufacturers must develop, among other things, methods for testing the identity, strength, quality and purity of the final drug 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.

There are also various laws and regulations regarding laboratory practices, the experimental use of animals, and the use and disposal of hazardous or potentially hazardous substances in connection with the research. In each of these areas, the FDA and other regulatory authorities have broad regulatory and enforcement powers, including the ability to levy fines and civil penalties, suspend or delay issuance of approvals, seize or recall products, and withdraw approvals.

Information about certain clinical trials must be submitted within specific timeframes for public dissemination on the clinicaltrials.gov website. Sponsors or distributors of investigational products for the diagnosis, monitoring, or treatment of one or more serious diseases or conditions must also have a publicly available policy on evaluating and responding to requests for expanded access requests.

A sponsor who wishes to conduct a clinical trial outside of the U.S. 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. If a foreign clinical trial is not conducted under an IND, FDA will

nevertheless accept the results of the study in support of an NDA 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 FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical trials, as well as the quality and integrity of the resulting data. They further help ensure that non-IND foreign trials are conducted in a manner comparable to that required for clinical trials in the U.S.

U.S. review and approval processes

Assuming successful completion of the required clinical testing, the results of the preclinical studies and clinical trials, together with detailed information relating to the product's chemistry, manufacture, controls and proposed labeling, among other things, are submitted to the FDA as part of an NDA package requesting approval to market the product for one or more indications. An NDA is a request for approval to market a new drug for one or more specified indications and must contain proof of the drug's safety and efficacy for the requested indications. The marketing application is required to include both negative and ambiguous results of preclinical studies and clinical trials, as well as positive findings. Data may come from company-sponsored clinical trials intended to test the safety and efficacy of a product's use or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and efficacy of the investigational product to the satisfaction of the FDA. FDA must generally approve an NDA before a drug may be marketed in the U.S.

The FDA reviews all submitted NDAs before it accepts them for filing and may request additional information rather than accepting the NDA for filing. The FDA must make a decision on accepting an NDA for filing within 60 days of receipt, and such decision could include a refusal to file by the FDA. Once the submission is accepted for filing, the FDA begins an in-depth substantive review of the NDA. The FDA reviews an NDA to determine, among other things, whether the drug is safe and effective for the indications sought 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. Under the goals and polices agreed to by the FDA under PDUFA, the FDA targets ten months, from the filing date, in which to complete its initial review of an NDA and respond to the applicant, and six months from the filing date of an NDA for priority review. The FDA does not always meet its PDUFA goal dates for standard or priority NDAs, and the review process is often extended by FDA requests for additional information or clarification. Each NDA must be accompanied by a substantial PDUFA user fee, which FDA adjusts on an annual basis. Fee waivers or reductions are available in certain circumstances, including a waiver of the application fee for the first application filed by a small business. Additionally, no user fees are assessed on NDAs for products designated as orphan drugs, unless the product also includes a non-orphan indication.

The FDA may refer an application for a novel drug or drug that presents difficult questions of safety and efficacy to an advisory committee. An advisory committee is a panel of independent experts, including clinicians and other scientific experts, which reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

Before approving an NDA, the FDA typically will inspect the facility or facilities where the product is manufactured. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and are adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA, the FDA may inspect one or more clinical trial sites to assure compliance with GCP and other requirements and the integrity of the clinical data submitted to the FDA.

After evaluating the NDA and all related information, including the advisory committee recommendation, if any, and inspection reports regarding the manufacturing facilities and clinical trial sites, the FDA may issue an approval letter, or, in some cases, a complete response letter. A complete response letter generally contains a statement of specific conditions that must be met in order to secure final approval of the NDA and may require additional

clinical or preclinical testing in order for the FDA to reconsider the application. The NDA sponsor will have one year to submit to the FDA information that represents a complete response to the deficiencies described in the letter. The FDA will then re-review the application, taking into consideration the response and determine whether the application meets the criteria for approval. If and when those conditions have been met to the FDA's satisfaction, the FDA will typically issue an approval letter. An approval letter authorizes commercial marketing of the drug with specific prescribing information for specific indications.

Even if the FDA approves a product, it may limit the approved indications for use of the product and require that contraindications, warnings or precautions be included in the product labeling. Additionally, the FDA may require post-approval studies, including Phase 4 clinical trials, to further assess a drug's efficacy 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 under a REMS. A REMS can include medication guides, physician communication plans, assessment plans, and/or elements to assure safe use, such as restricted distribution methods, patient registries, or other risk-minimization tools, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-marketing studies or surveillance programs. After approval, some types of changes to the approved product, such as adding new indications, manufacturing changes, and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Post-approval requirements

Maintaining substantial compliance with applicable federal, state, and local statutes and regulations requires the expenditure of substantial time and financial resources. Rigorous and extensive FDA regulation of drugs continues after approval, particularly with respect to cGMP. If we obtain regulatory approval for any of our products, we will be required to comply with all post-approval regulatory requirements as well as any specific post-approval requirements that the FDA have imposed as part of the approval process. We will be required to report certain adverse reactions and production problems to the FDA, provide updated safety and efficacy information, and comply with requirements concerning advertising and promotional labeling requirements and record-keeping requirements. Further, if there are any modifications to the drug, including changes in indications, labeling or manufacturing processes or facilities, we may be required to submit and obtain FDA approval of a new NDA or NDA supplement, which may require the generation of additional data or the conduct of additional preclinical studies and clinical trials. Manufacturers and other parties involved in the drug supply chain for prescription drug products must also comply with product tracking and tracing requirements and for notifying the FDA of counterfeit, diverted, stolen and intentionally adulterated products or products that are otherwise unfit for distribution in the U.S.

We will rely, and expect to continue to rely, on third parties for the production of clinical and commercial quantities of any products that we may commercialize. Manufacturers of our products are required to comply with applicable requirements in the cGMP regulations, including quality control and quality assurance and maintenance of records and documentation.

Manufacturing facilities are required to register their establishments with the FDA and certain state agencies and are subject to periodic inspections by the FDA and certain state agencies for compliance with ongoing regulatory requirements. Failure to comply with statutory and regulatory requirements may result in the issuance of an FDA Form 483 notice of inspectional observations, untitled letter, warning letter, or suspension of manufacturing or other legal or regulatory action, such as product seizures, injunctions, civil penalties or criminal prosecution. Additionally, defects in manufacturing of commercial products can result in product recalls.

Systems need to be put in place to record and evaluate adverse events reported by health care providers and patients and to assess product complaints. 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, requirements for post-market studies or clinical trials to assess new safety risks, or imposition of distribution or other restrictions under a REMS. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, complete withdrawal of the product from the market or product recalls;
- the issuance of safety alerts, Dear Healthcare Provider letters, press releases or other communications containing warnings or other safety information about the product;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve applications or supplements to approved applications, or suspension or revocation of product approvals;
- product seizure or detention, or refusal to permit the import or export of products;
- injunctions or the imposition of civil or criminal penalties; and
- consent decrees, corporate integrity agreements, debarment or exclusion from federal healthcare programs; or mandated modification of promotional materials and labeling and issuance of corrective information.

The FDA strictly regulates the marketing, labeling, advertising and promotion of prescription drug 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 drug's safety or effectiveness are prohibited before the drug is approved. After approval, a drug product generally may not be promoted for uses or patient populations that are not approved by the FDA, as reflected in the product's prescribing information (known as "off-label" use). In the U.S., healthcare professionals are generally permitted to prescribe drugs for such off-label uses because the FDA does not regulate the practice of medicine. However, FDA regulations impose rigorous restrictions on manufacturers' communications, prohibiting the promotion of off-label uses. Prescription drug promotional materials must be submitted to the FDA in conjunction with their first use.

If a company, including any agent 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 drug products. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has also requested that companies enter into consent decrees or permanent injunctions under which specified promotional conduct is changed or curtailed.

Orphan drug designation

Under the Orphan Drug Act, the FDA may grant Orphan Drug Designation, or ODD, to a drug intended to treat a rare disease or condition, which is generally a disease or condition that affects fewer than 200,000 individuals in the U.S., or more than 200,000 individuals in the U.S. and for which there is no reasonable expectation that the cost of developing and making a drug available in the U.S. for this type of disease or condition will be recovered from sales of the product. ODD must be requested before submitting a marketing application. After the FDA grants ODD, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. ODD does not convey any advantage in or shorten the duration of the regulatory review and approval process.

If a product that has ODD receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan product exclusivity, which means that the FDA may not approve any other applications to market the same drug for the same indication for seven years, except in limited circumstances, such as not being able to supply the product for patients or showing clinical superiority to the product with orphan exclusivity.

Competitors, however, may receive approval of different products for the indication for which the orphan product has exclusivity or obtain approval for the same product but for a different indication for which the orphan product has exclusivity. Orphan product exclusivity also could block the approval of one of our products for seven years if a competitor obtains approval of the same drug as defined by the FDA or if our product candidate is determined to be contained within the competitor's product for the same indication or disease. If a drug designated as an orphan product receives marketing approval for an indication broader than what is designated, it may not be entitled to orphan product exclusivity.

The FDA has historically taken the position that the scope of orphan exclusivity aligns with the approved indication or use of a product, rather than the disease or condition for which the product received orphan designation. However, in *Catalyst Pharms., Inc. v. Becerra*, 14 F.4th 1299 (11th Cir. 2021), the court disagreed with this position, holding that orphan-drug exclusivity blocked the FDA's approval of the same drug for all uses or indications within the same orphan-designated disease. On January 24, 2023, the FDA published a notice in the Federal Register to clarify that the FDA intends to continue to apply its longstanding interpretation of the regulations to all matters outside of the scope of the *Catalyst* order and will continue tying the scope of orphan-drug exclusivity to the uses or indications for which a drug is approved. It is unclear how future litigation, legislation, agency decisions, and administrative actions will impact the scope of the orphan drug exclusivity.

Rare Pediatric Disease priority review voucher program

Under the Rare Pediatric Disease Priority Review Voucher program, the FDA may award a priority review voucher to the sponsor of an approved marketing application for a drug that is for the prevention or treatment of a rare pediatric disease. The sponsor can use the voucher to obtain priority review for a subsequent human drug or biologic application. The sponsor can also transfer or sell the voucher to another company.

To be eligible for a rare pediatric disease priority review voucher, the NDA must be for a drug that prevents or treats a "rare pediatric disease" defined to mean a serious or life-threatening disease in which the serious or life-threatening manifestations primarily affect individuals aged from birth to 18 years and the disease affects fewer than 200,000 individuals in the U.S., or affects 200,000 or more individuals in the U.S. but for which there is no reasonable expectation that the cost of developing the drug will be recovered from sales of the drug in the U.S. Additionally, the NDA must be deemed eligible for priority review, rely on clinical data derived from studies examining a pediatric population and dosages of the drug intended for that population, not seek approval for a different adult indication in the original rare pediatric disease product application and be for a drug that does not include a previously approved active ingredient. A sponsor may request rare pediatric disease designation from the FDA prior to the submission of the NDA; however rare pediatric disease designation does not guarantee that a sponsor will receive a priority review voucher upon approval of the NDA.

The Rare Pediatric Disease Priority Review Voucher program was originally set to expire in October 2020 but was extended for an additional six years. Under the current statutory sunset provisions, the FDA may only award a rare pediatric disease priority review voucher if a sponsor has received rare pediatric disease designation for the drug before September 30, 2024, and the NDA for the product is approved before September 30, 2026. After September 30, 2026, the FDA may not award any rare pediatric disease priority review vouchers, unless the program is extended.

Expedited review and approval programs

The FDA has various programs, including Fast Track designation, priority review, accelerated approval, and breakthrough therapy designation, that are intended to expedite or simplify the process for the development and FDA review of drugs that are intended for the treatment of serious or life-threatening diseases or conditions and demonstrate the potential to address unmet medical needs. The purpose of these programs is to provide important new drugs to patients earlier than under standard FDA review procedures. To be eligible for a Fast Track designation, the FDA must determine, based on the request of a sponsor, that a drug is intended to treat a serious or life-threatening disease or condition and demonstrates the potential to address an unmet medical need. The FDA will determine that a product will fill an unmet medical need if it will provide a therapy where none

exists or provide a therapy that may be potentially superior to existing therapy based on efficacy or safety factors. In addition to other benefits, such as the ability to have greater interactions with the FDA, the FDA may initiate review of sections of a Fast Track BLA before the application is complete, a process known as rolling review.

The FDA may give a priority review designation, such as a rare pediatric disease designation, to drugs that treat a serious condition and, if approved, would provide a significant improvement in safety or effectiveness. A priority review means that the goal for the FDA to review an application is six months, rather than the standard review of ten months under current PDUFA guidelines. Most products that are eligible for Fast Track designation may also be considered appropriate to receive a priority review. In addition, drugs studied for their safety and effectiveness in treating serious or life-threatening illnesses and that provide meaningful therapeutic benefit over existing treatments may receive accelerated approval and may be approved on the basis of adequate and well-controlled clinical trials establishing that the drug has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit, or on a clinical endpoint that can be measured earlier than irreversible morbidity or mortality, that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity, or prevalence of the condition and the availability or lack of alternative treatments. As a condition of approval, the FDA may require a sponsor of a drug receiving accelerated approval to perform adequate and well-controlled post-marketing studies to verify and describe the predicted effect on irreversible morbidity or mortality or other clinical endpoint. Under the Food and Drug Omnibus Reform Act of 2022, or FDORA, the FDA may require, as appropriate, that such trials be underway prior to approval or within a specific time period after the date of approval for a product granted accelerated approval. Under FDORA, the FDA has increased authority for expedited procedures to withdraw approval of a drug or indication approved under accelerated approval if, for example, the confirmatory trial fails to verify the predicted clinical benefit of the product. In addition, for products being considered for accelerated approval, the FDA generally requires, unless otherwise informed by the agency, that all advertising and promotional materials intended for dissemination or publication within 120 days of marketing approval be submitted to the agency for review during the pre-approval review period.

Moreover, a sponsor can request designation of a product candidate as a “breakthrough therapy.” A breakthrough therapy is defined as a drug that is intended, alone or in combination with one or more other drugs, to treat a serious or life-threatening disease or condition, and preliminary clinical evidence indicates that the drug may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. Drugs designated as breakthrough therapies are also eligible for accelerated approval. The FDA must take certain actions, such as holding timely meetings and providing advice, intended to expedite the development and review of an application for approval of a breakthrough therapy.

Even if a product qualifies for one or more of these programs, the FDA may later decide that the product no longer meets the conditions for qualification or decides that the time period for FDA review or approval will not be shortened. Furthermore, fast-track designation, priority review, accelerated approval, and breakthrough therapy designation do not change the standards for approval and may not ultimately expedite the development or approval process.

Pediatric information and pediatric exclusivity

The Pediatric Research Equity Act, or PREA, requires a sponsor to conduct pediatric clinical trials for most drugs, for a new active ingredient, new indication, new dosage form, new dosing regimen or new route of administration. Under PREA, as amended, certain NDAs and NDA supplements must contain data that can be used to assess the safety and efficacy of the drug 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 FDA may grant deferrals for submission of pediatric data or full or partial waivers. The FDCA requires that a sponsor who is planning to submit a marketing application for a drug 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, or PSP, within 60 days of an end-of-Phase 2 meeting or, if there is no such meeting, as early as

practicable before the initiation of the Phase 3 or Phase 2/3 study. The initial PSP must include an outline of the pediatric study or studies that the sponsor plans to conduct, including study objectives and design, age groups, relevant endpoints and statistical approach, or a justification for not including such detailed information, and any deferral or waiver requests. The FDA and the sponsor must reach an agreement on the PSP. A sponsor can submit amendments to an agreed-upon initial PSP at any time if changes to the pediatric plan need to be considered based on data collected from preclinical studies, early phase clinical trials and/or other clinical development programs.

The FDA may, on its own initiative or at the request of the applicant, 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.

A drug can also obtain pediatric market exclusivity in the U.S. Pediatric exclusivity, if granted, adds six months to existing marketing exclusivity periods and patent terms. This six-month exclusivity, which runs from the end of other exclusivity protection or patent term, may be granted based on the voluntary completion of a pediatric study in accordance with an FDA-issued "Written Request" for such a study.

Marketing exclusivity

Market exclusivity provisions authorized under the FDCA can delay the submission or the approval of certain marketing applications. The FDCA provides a five-year period of non-patent marketing exclusivity within the U.S. to the first applicant to obtain approval of an NDA for a new chemical entity. A drug is a new chemical entity if the FDA has not previously approved any other new drug containing the same active moiety, which is the molecule or ion responsible for the action of the drug substance. During the exclusivity period, the FDA may not approve or even accept for review an abbreviated new drug application, or ANDA, or an NDA submitted under Section 505(b)(2), or 505(b)(2) NDA, submitted by another company for another drug based on the same active moiety, regardless of whether the drug is intended for the same indication as the original innovative drug or for another indication, where the applicant does not own or have a legal right of reference to all the data required for approval. However, an application may be submitted after four years if it contains a certification of patent invalidity or non-infringement to one of the patents listed with the FDA by the innovator NDA holder.

The FDCA alternatively provides three years of marketing exclusivity for an NDA, or supplement to an existing NDA if new clinical investigations, other than bioavailability studies, that were conducted or sponsored by the applicant are deemed by the FDA to be essential to the approval of the application, for example new indications, dosages or strengths of an existing drug. This three-year exclusivity covers only the modification for which the drug received approval on the basis of the new clinical investigations and does not prohibit the FDA from approving ANDAs or 505(b)(2) NDAs for drugs containing the active agent for the original indication or condition of use. Five-year and three-year exclusivity will not delay the submission or approval of a full NDA. However, an applicant submitting a full NDA would be required to conduct or obtain a right of reference to any preclinical studies and adequate and well-controlled clinical trials necessary to demonstrate safety and effectiveness.

In addition, pediatric exclusivity and orphan drug exclusivity, as described above, may offer a six-month or seven-year period of exclusivity, respectively, except in certain circumstances.

Patent term restoration and extension

Depending upon the timing, duration and specifics of FDA approval of our product candidates, some of a sponsor's U.S. patents may be eligible for limited patent term extension, or PTE, under the Hatch-Waxman Amendments. As compensation for patent term lost during product development and the FDA regulatory review process, the Hatch-Waxman Amendments permit a patent restoration term, which is limited to a maximum of five years, or less if the extended patent term would exceed 14 years after the date of the regulatory approval of the product. The patent term restoration period is generally one-half the time between the effective date of an IND and the submission date of an NDA plus the time between the submission date of an NDA, less any time the

sponsor did not act with due diligence during the period and the approval of that application less any time the sponsor did not act with due diligence during the period. Only one patent applicable to an approved drug or drug product is eligible for the extension, only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended, and the application for the extension must be submitted prior to the expiration of the patent. Moreover, a given patent may only extended once based on a single product. The USPTO, in consultation with the FDA, reviews and approves the application for any patent term extension or restoration. Similar provisions are available in Europe and other foreign jurisdictions to extend the term of a patent that covers an approved drug. In the future, we may intend to apply for restoration of a patent term for one of our currently owned or licensed patents to add patent life beyond its current expiration date, depending on the expected length of the clinical trials and other factors involved in the filing of the relevant NDA. However, we may not receive an extension if we fail to exercise due diligence during the testing phase or regulatory review process, fail to apply within applicable deadlines, fail to apply prior to expiration of relevant patents or otherwise fail to satisfy applicable requirements. Moreover, the length of the extension could be less than we request. There can be no assurance that we will benefit from any PTE or favorable adjustment to the term of any of our patents.

Regulation outside of the United States

In addition to regulations in the U.S., we are subject to a variety of regulations in other jurisdictions governing clinical studies, commercial sales, and distribution of our products. Most countries outside of the U.S. require that clinical trial applications be submitted to and approved by the local regulatory authority for each clinical study.

Our first clinical trial of CMP-CPS-001 is being conducted in Australia. The TGA and the National Health and Medical Research Council set the GCP requirements for clinical research in Australia, and compliance with these codes is mandatory. Australia has also adopted international codes, such as those promulgated by the International Council for Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use, or the ICH. The ICH guidelines must be complied with across all fields of clinical research, including those related to pharmaceutical quality, nonclinical and clinical data requirements and trial designs. The basic requirements for preclinical data to support a first-in-human trial under ICH guidelines are applicable in Australia. Requirements related to adverse event reporting in Australia are similar to those required in other major jurisdictions.

Clinical trials conducted using “unapproved therapeutic goods” in Australia (those which have not yet been evaluated by the TGA for quality, safety and efficacy), must occur pursuant to either the Clinical Trial Notification Scheme, or the CTN Scheme, or the Clinical Trial Exemption Scheme, or the CTX Scheme. In each case, the trial is supervised by a Human Research Ethics Committee, or HREC, an independent review committee set up under guidelines of the Australian National Health and Medical Research Council that ensures the protection of rights, safety and well- being of human subjects involved in a clinical trial. A HREC does this by reviewing, approving and providing continuing examination of trial protocols and amendments, and of the methods and material to be used in obtaining and documenting informed consent of the trial subjects.

In the European Union an application must be submitted to the national competent authority and an independent ethics committee in each country in which we intend to conduct clinical trials, much like the FDA and IRB, respectively. Under the new Clinical Trials Regulation (EU) No 536/2014, which replaced the Clinical Trials Directive 2001/20/EC on January 31, 2022, a single application is now made through the Clinical Trials Information System, or CTIS, for clinical trial authorization in up to 30 EU/EEA countries at the same time and with a single set of documentation.

The assessment of applications for clinical trials is divided into two parts (Part I contains scientific and medicinal product documentation and Part II contains the national and patient-level documentation). Part I is assessed by a coordinated review by the competent authorities of all European Union Member States in which an application for authorization of a clinical trial has been submitted (Member States concerned) of a draft report prepared by a Reference Member State. Part II is assessed separately by each Member State concerned. The role of the relevant ethics committees in the assessment procedure will continue to be governed by the national law of the Member

State concerned, however overall related timelines are defined by the Clinical Trials Regulation. The new Clinical Trials Regulation also provides for simplified reporting procedures for clinical trial sponsors.

In addition, whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of countries outside the U.S. before we can commence marketing of the product in those countries. The approval process and requirements vary from country to country, so the number and type of nonclinical, clinical, and manufacturing studies needed may differ, and the time may be longer or shorter than that required for FDA approval.

To obtain regulatory approval of our medicinal products under the European Union regulatory system, we are required to submit a marketing authorization application, or MAA, to be assessed in the centralized procedure. The centralized procedure allows applicants to obtain a marketing authorization, or MA, that is valid throughout the European Union, and the additional Member States of the European Economic Area (Iceland, Liechtenstein and Norway), or EEA. It is compulsory for medicinal products manufactured using biotechnological processes, orphan medicinal products, advanced therapy medicinal products (gene-therapy, somatic cell-therapy or tissue-engineered medicines) and human products containing a new active substance which is not authorized in the European Union and which is intended for the treatment of HIV, AIDS, cancer, neurodegenerative disorders, auto-immune and other immune dysfunctions, viral diseases or diabetes. The centralized procedure is optional for any other products containing new active substances not authorized in the European Union or for products which constitute a significant therapeutic, scientific, or technical innovation or for which a centralized authorization is in the interests of patients at European Union level. When a company wishes to place on the market a medicinal product that is eligible for the centralized procedure, it sends an application directly to the EMA, to be assessed by the Committee for Medicinal Products for Human Use, or CHMP. The CHMP is responsible for conducting the assessment of whether a medicine meets the required quality, safety, and efficacy requirements, and whether the product has a positive risk/benefit profile. The procedure results in a European Commission decision, which is valid in all European Union Member States. The centralized procedure is as follows: full copies of the MAA are sent to a rapporteur and a co-rapporteur designated by the competent EMA scientific committee. They coordinate the EMA's scientific assessment of the medicinal product and prepare draft reports. Once the draft reports are prepared (other experts might be called upon for this purpose), they are sent to the CHMP, whose comments or objections are communicated to the applicant. The rapporteur is therefore the privileged interlocutor of the applicant and continues to play this role, even after the MA has been granted.

The rapporteur and co-rapporteur then assess the applicant's replies, submit them for discussion to the CHMP, and taking into account the conclusions of this debate, prepare a final assessment report. Once the evaluation is completed, the CHMP gives a favorable or unfavorable opinion as to whether to grant the authorization. When the opinion is favorable, it shall include the draft summary of product characteristics, or SmPC, the package leaflet, and the texts proposed for the various packaging materials. The time limit for the evaluation procedure is 210 days (excluding clock stops, when additional written or oral information is to be provided by the applicant in response to questions asked by the CHMP). The EMA then has fifteen days to forward its opinion to the European Commission, which will make a binding decision on the grant of an MA within 67 days of the receipt of the CHMP opinion.

There are two other procedures in the European Union for the grant of an MA in multiple European Union Member States. The decentralized procedure provides for approval by one or more other, or Concerned Member States, of an assessment of an application performed by one Member State, known as the Reference Member State. Under this procedure, an applicant submits an application, or dossier, and related materials including a draft SmPC, and draft labeling and package leaflet, to the Reference Member State and Concerned Member States. The Reference Member State prepares a draft assessment and drafts of the related materials within 120 days after receipt of a valid application. Within 90 days of receiving the Reference Member State's assessment report, each Concerned Member State must decide whether to approve the assessment report and related materials. If a Member State cannot approve the assessment report and related materials on the grounds of potential serious risk to the public health, the disputed points may eventually be referred to the European Commission, whose decision is

binding on all Member States. Where a product has already been authorized for marketing in a European Union Member State, this national MA can be recognized in other Member States through the mutual recognition procedure.

The criteria for designating an “orphan medicinal product” in the European Union are similar in principle to those in the U.S. Under Article 3 of Regulation (EC) 141/2000, a medicinal product may be designated as an orphan medicinal product if it is intended for the diagnosis, prevention, or treatment of a life-threatening or chronically debilitating condition that affects no more than five in 10,000 persons in the European Union when the application is made. In addition, orphan designation can be granted if the product is intended for a life threatening, seriously debilitating, or serious and chronic condition in the European Union and, without incentives, it is unlikely that sales of the product in the European Union would be sufficient to justify the necessary investment in its development. Orphan designation is only available if there is no other satisfactory method approved in the European Union of diagnosing, preventing, or treating the applicable orphan condition, or if such a method exists, the proposed orphan medicinal product will be of significant benefit to patients affected by such condition, as defined in Regulation (EC) 847/2000.

Orphan designation provides opportunities for fee reductions, protocol assistance, and access to the centralized procedure. Fee reductions are limited to the first year after an MA, except for small and medium enterprises. In addition, if a product which has an orphan designation subsequently receives a centralized MA for the indication for which it has such designation, the product is entitled to orphan market exclusivity, which means the EMA may not approve any other application to market a similar medicinal product for the same indication for a period of ten years. 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 exclusivity period may be reduced to six years if, at the end of the fifth year, it is shown that the designation criteria are no longer met, including where it is shown that the product is sufficiently profitable not to justify maintenance of market exclusivity. Additionally, an MA may be granted to a similar medicinal product for the same indication at any time if:

- the second applicant can establish that its product, although similar to the authorized product, is safer, more effective or otherwise clinically superior;
- the MA holder of the authorized product consents to a second orphan medicinal product application; or
- the MA holder of the authorized product cannot supply enough orphan medicinal product.

A pediatric investigation plan, or PIP, in the European Union is aimed at ensuring that the necessary data are obtained to support the authorization of a medicine for children, through studies in children. All applications for MAs for new medicines have to include the results of studies as described in an agreed PIP, unless the medicine is exempt because of a deferral or waiver. This requirement also applies when an MA holder wants to add a new indication, pharmaceutical form, or route of administration for a medicine that is already authorized and covered by intellectual property rights. Several rewards and incentives for the development of pediatric medicines for children are available in the European Union. Medicines authorized across the European Union with the results of studies from a PIP included in the product information are eligible for an extension of their supplementary protection certificate, or SPC, by six months (provided an application for such extension is made at the same time as filing the SPC application for the product, or at any point up to two years before the SPC expires). This is the case even when the studies’ results are negative. For orphan medicinal products, the incentive is an additional two years of market exclusivity. Scientific advice and protocol assistance at the EMA are free of charge for questions relating to the development of pediatric medicines. Medicines developed specifically for children that are already authorized but are not protected by a patent or supplementary protection certificate are eligible for a pediatric-use MA, or PUMA. If a PUMA is granted, the product will benefit from ten years of market protection as an incentive.

In March 2016, the EMA launched an initiative, the PRIority Medicines, or PRIME, scheme, to facilitate development of product candidates in indications, often rare, for which few or no therapies currently exist. The PRIME scheme is intended to encourage development of products in areas of unmet medical need and provides

accelerated assessment of products representing substantial innovation reviewed under the centralized procedure. Products from small- and medium-sized enterprises may qualify for earlier entry into the PRIME scheme than larger companies on the basis of compelling non-clinical data and tolerability data from initial clinical trials. Many benefits accrue to sponsors of product candidates with PRIME designation, including but not limited to, early and proactive regulatory dialogue with the EMA, frequent discussions on clinical trial designs and other development program elements, and potentially accelerated MAA assessment once a dossier has been submitted. Importantly, once a candidate medicine has been selected for the PRIME scheme, a dedicated contact and rapporteur from the CHMP or from the Committee for Advanced Therapies, or CAT, are appointed early in the PRIME scheme facilitating increased understanding of the product at EMA's committee level. An initial meeting with the CHMP/CAT rapporteur initiates these relationships and includes a team of multidisciplinary experts at the EMA to provide guidance on the overall development and regulatory strategies. PRIME eligibility does not change the standards for product approval, and there is no assurance that any such designation or eligibility will result in expedited review or approval.

The aforementioned European Union rules are generally applicable in the EEA. The United Kingdom left the European Union on January 31, 2020, and the United Kingdom and the European Union have concluded a trade and cooperation agreement, or 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). Except in respect of the new European Union Clinical Trials Regulation, the regulatory regime in Great Britain therefore largely aligns with current European Union medicines regulations, however it is possible that these regimes will diverge more significantly in 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 framework mentioned below which will be put in place by the Medicines and Healthcare products Regulatory Agency, or MHRA, the United Kingdom's medicines regulator, from January 1, 2024, the MHRA has stated that it will take into account decisions on the approval of MAs from the EMA (and certain other regulators) when considering an application for a Great Britain MA.

On February 27, 2023, the United Kingdom 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 United Kingdom 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 United Kingdom-wide MA will be granted by the MHRA for all medicinal products to be sold in the United Kingdom, enabling products to be sold in a single pack and under a single authorization throughout the United Kingdom. The Windsor Framework was approved by the European Union-United Kingdom Joint Committee on March 24, 2023, so the United Kingdom government and the European Union will enact legislative measures to bring it into law.

The MHRA has introduced changes to national licensing procedures, including procedures to prioritize access to new medicines that will benefit patients, an accelerated assessment procedure and new routes of evaluation for novel products and biotechnological products. All existing European Union MAs for centrally authorized products were automatically converted (grandfathered) into United Kingdom MAs free of charge on January 1, 2021. For a period of three years from January 1, 2021, the MHRA may rely on a decision taken by the European Commission on the approval of a new MA in the centralized procedure, in order to more quickly grant a new Great Britain MA. A separate application will, however, still be required. On January 24, 2023, the MHRA announced that a new

international recognition framework will be put in place from January 1, 2024, which will have regard to decisions on the approval of MAs made by the EMA and certain other regulators when determining an application for a new Great Britain MA.

There is now no pre-MA orphan designation in Great Britain. Instead, the MHRA reviews applications for orphan designation in parallel to the corresponding MAA. The criteria are essentially the same, but have been tailored for the Great Britain market, i.e., the prevalence of the condition in Great Britain (rather than the European Union) must not be more than five in 10,000. Should an orphan designation be granted, the period or market exclusivity will be set from the date of first approval of the product in Great Britain or the European Union, wherever is earliest.

Government regulation in Australia

Our Phase 1 clinical trial for CMP-CPS-001 is being conducted in Australia. The Therapeutic Goods Administration (TGA) and the National Health and Medical Research Council (NHMRC) set the GCP requirements for clinical research in Australia.

Compliance with the regulations, standards and codes set by the TGA and NHMRC is mandatory. Under the *Therapeutic Goods Act 1989* (Cth) and the *Therapeutic Goods Regulations 1990* (Cth), it is a condition (amongst other conditions) of all clinical trials involving investigational medicinal products to comply with the National Statement on Ethical Conduct in Research Involving Humans, published by the NHMRC (the National Statement), and the Guideline for Good Clinical Practice published by the International Council for Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH Guidelines). The ICH Guidelines have been adopted in Australia, and must be complied with across all fields of clinical research involving therapeutic goods, including those related to pharmaceutical quality, nonclinical and clinical data requirements and trial designs. The basic requirements for preclinical data to support a first-in-human trial under ICH Guidelines are applicable in Australia. Requirements related to adverse event reporting in Australia are generally similar to those required in other major jurisdictions, although reporting timeframes may differ to other jurisdictions.

Clinical trials conducted using “unapproved therapeutic goods” in Australia, being those which have not yet been evaluated by the TGA for quality, safety and efficacy (and including unapproved indications of therapeutic goods which have otherwise been approved for use in Australia) must occur pursuant to either the Clinical Trial Notification Scheme (CTN Scheme) or the Clinical Trial Approval Scheme (CTA Scheme). In each case, the trial is supervised by a Human Research Ethics Committee (HREC), an independent review committee constituted in accordance with the National Statement that ensures the protection of rights, safety and well-being of human subjects involved in a clinical trial. A HREC reviews, approves and provides continuing oversight of trial protocols (including any amendments), methods and materials intended to be used in obtaining and documenting informed consent of the clinical trial subjects.

The CTN Scheme broadly involves:

- submission to a HREC, of all material relating to the proposed clinical trial, including the trial protocol;
- the HREC reviews the scientific validity of the trial design, the balance of risk versus harm of the therapeutic good, the ethical acceptability of the trial process, and approves the trial protocol. The HREC is also responsible for monitoring the conduct of the trial;
- the institution or organization at which the trial will be conducted, referred to as the “Approving Authority”, giving final approval for the conduct of the trial at the site, in terms no less restrictive to those advised by the HREC; and
- the investigator submitting a ‘Notification of Intent to Conduct a Clinical Trial’ form (CTN Form) to the TGA. The CTN form must be signed by the sponsor, the principal investigator, the chairman of the HREC and a person responsible from the Approving Authority. The TGA does not review any data relating to the clinical trial however CTN trials cannot commence until the trial has been notified to the TGA.

Under the CTA Scheme:

- a sponsor submits an application to conduct a clinical trial to the TGA for evaluation and comment;
- a sponsor must forward any comments made by the TGA Delegate to the HREC(s) at the sites where the trial will be conducted;
- the HREC is responsible for considering the scientific and ethical issues of the proposed trial protocol.

A sponsor cannot commence a trial under the CTA Scheme until written advice has been received from the TGA regarding the application and approval for the conduct of the trial has been obtained from an ethics committee and the institution at which the trial will be conducted.

Approval for inclusion in the Australian Register of Therapeutic Goods (ARTG), is required before a therapeutic good (including pharmaceutical product) may be marketed (or supplied, imported, exported or manufactured) in Australia. Exceptions apply to therapeutic goods/pharmaceutical products that are supplied, imported, and exported to and from Australia for the purposes of a clinical trial, on the basis that certain conditions are met (e.g., the trial is conducted in accordance with the CTN or CTA scheme).

Once a sponsor decides to register a therapeutic good/pharmaceutical product in Australia, in order to obtain registration of the product on the ARTG, it is required that (amongst others):

- the sponsor submits appropriate documentation, including the outcomes of clinical trials and studies, to allow the TGA to assess the quality, safety and efficacy of the therapeutic product/pharmaceutical product; and
- the sponsor submits evidence which demonstrates that the manufacture of the therapeutic product/pharmaceutical product complies with the applicable GMP requirements.

The TGA has the ultimate discretion to decide whether to include the therapeutic product/pharmaceutical product in the ARTG.

Healthcare laws and regulations in the United States

Sales of our product candidate, if approved, or any other future product candidate, will be subject to healthcare regulation and enforcement by the federal government and the states and foreign governments in which we might conduct our business. The healthcare laws and regulations that may affect our ability to operate include the following:

- The federal Anti-Kickback Statute, or AKS, which makes it illegal for any person or entity to knowingly and willfully, directly or indirectly, solicit, receive, offer, or pay any remuneration that is in exchange for or to induce the referral of business, including the purchase, order, lease 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 Medicare or Medicaid. The term “remuneration” has been broadly interpreted to include anything of value. Liability may be established without proving actual knowledge of the statute or specific intent to violate it;
- Federal false claims, and false statement laws, including the federal civil False Claims Act, or FCA, which prohibits, among other things, any person or entity from knowingly presenting, or causing to be presented, for payment to, or approval by, federal programs, including Medicare and Medicaid, claims for items or services, including drugs and biologics, that are false or fraudulent. Manufacturers can be held liable under the FCA even when they do not submit claims directly to government payors if they are deemed to “cause” the submission of false or fraudulent claims; the FCA also permits a private individual acting as whistleblower to bring actions on behalf of the federal government alleging violations of the FCA and to share in any monetary recovery;
- The Civil Monetary Penalties Law, which covers a variety of conduct, often violations under other laws, and includes penalties for violating the AKS violations, causing the submission of false claims, and offering or transfer of remuneration to a Medicare or state healthcare program beneficiary if the person knows or

should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state healthcare program;

- The Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009 and their implementing regulations, imposes criminal and civil liability for knowingly and willfully executing, or attempting to execute, a scheme to defraud any healthcare benefit program, including private third-party payors or making any false, fictitious or fraudulent statement in connection with the delivery of or payment for healthcare benefits, items or services;
- HIPAA also imposes obligations related to the privacy, security, and transmission of individually identifiable health information that apply to many healthcare providers, physicians, and third-party payors with whom we interact;
- Federal consumer protection and unfair competition laws broadly regulate marketplace activities and activities that potentially harm consumers;
- Federal government price reporting laws, which require pharmaceutical manufacturers to report certain calculated product prices to the government or provide certain discounts or rebates to government authorities or private entities, often as a condition of reimbursement under governmental healthcare programs;
- The federal Physician Payments Sunshine Act which requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services, or CMS, information related to payments or other transfers of value made to "physicians" (which has the same meaning as under Section 1861(r) of the Social Security Act, which generally includes doctors of medicine, osteopathy, dentists, podiatrists, optometrists and chiropractors who are legally authorized to practice by a state) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Beginning in 2022, applicable manufacturers are also required to report such information regarding payments and transfers of value provided during the previous year to physician assistants, nurse practitioners, clinical nurse specialists, anesthesiologist assistants, certified nurse anesthetists and certified nurse-midwives; and
- The Foreign Corrupt Practices Act, or FCPA, which prohibits U.S. businesses and their representatives from offering to pay, paying, promising to pay or authorizing the payment of money or anything of value to a foreign official in order to influence any act or decision of the foreign official in his or her official capacity or to secure any other improper advantage in order to obtain or retain business. The scope of the FCPA includes interactions with certain healthcare professionals in many countries.

Many states have similar laws and regulations, such as anti-kickback and false claims laws, that may be broader in scope and may apply regardless of payor, in addition to items and services reimbursed under Medicaid and other state programs. Additionally, we may be subject to state laws that require pharmaceutical companies to comply with the federal government's and/or pharmaceutical industry's voluntary compliance guidelines, state laws that require drug and biologics manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures, as well as state and foreign laws 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. The scope and enforcement of each of these laws is uncertain and subject to rapid change in the current environment of healthcare reform. Additionally, to the extent that our product is sold in a foreign country, we may be subject to similar foreign laws.

Because of the breadth of these laws and the narrowness of the statutory exceptions and safe harbors available, it is possible that some of our business activities could be subject to challenge under one or more of such laws in the future. If our operations are found to be in violation of any of such laws or any other governmental regulations that apply to us, we may be subject to, on a corporate or individual basis, penalties, including civil and criminal penalties, damages, fines, the curtailment or restructuring of our operations, the exclusion from participation in

federal and state healthcare programs and even imprisonment, any of which could materially adversely affect our ability to operate our business and our financial results. In addition, the cost of implementing sufficient systems, controls, and processes to ensure compliance with all of the aforementioned laws could be significant. Any action for violation of these laws, even if successfully defended, could cause us to incur significant legal expenses and divert management's attention from the operation of the company's business. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found not to be in compliance with applicable laws, that person or entity may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

It is not always possible to identify and deter employee misconduct, and the precautions we take to detect and prevent inappropriate conduct 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 be in compliance with such laws or regulations. Efforts to ensure that our business arrangements will comply with applicable healthcare laws may involve substantial costs. 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. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights those actions, our business may be impaired.

Pharmaceutical coverage, pricing and reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any product candidates for which we obtain regulatory approval. In the U.S. and foreign markets, sales of any products for which we receive regulatory approval for commercial sale will depend, in part, on the extent to which third-party payors provide coverage, and establish adequate reimbursement levels for such drug products. In the U.S., third-party payors include federal and state healthcare programs, private managed care organizations, private health insurers and other organizations.

In the U.S., no uniform policy of coverage and reimbursement for products exists among third-party payors. One payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage for the drug product. Third-party payors are increasingly challenging the price, examining the medical necessity and reviewing the cost-effectiveness of medical drug products and medical services, in addition to questioning their safety and efficacy. As a result, obtaining coverage and reimbursement approval of a product from these payors can be a time-consuming and costly process that could require us to provide each payor supporting scientific, supporting scientific, clinical and cost-effectiveness data for the use of our products on a payor-by-payor basis, with no assurance that coverage and adequate reimbursement will be obtained. We may need to conduct expensive pharmaco-economic studies in order to demonstrate the medical necessity and cost-effectiveness of our products, in addition to the costs required to obtain the FDA approvals. Nonetheless, our product candidates may not be considered medically necessary or cost-effective. In the U.S., the principal decisions about reimbursement for new medicines are typically made by 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. Such payors may limit coverage to specific drug products on an approved list, also known as a formulary, which might not include all of the FDA-approved drugs for a particular indication.

Further, the process for determining whether a third-party payor will provide coverage for a drug product may be separate from the process for setting the price of a drug product or for establishing the reimbursement rate that such a payor will pay for the drug product. A payor's decision to provide coverage for a drug product does not imply that an adequate reimbursement rate will be approved. 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. There is significant uncertainty related to insurance coverage and reimbursement of newly approved products. It is difficult to predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates.

Net prices for drugs may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and impacted 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 U.S. 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.

The marketability of any product candidates for which we receive regulatory approval for commercial sale may suffer if third-party payors fail to provide adequate coverage and reimbursement. In addition, emphasis on managed care in the U.S. has increased and could increase the pressure on pharmaceutical pricing. Coverage policies and third-party reimbursement rates may change at any time. Even if favorable coverage and reimbursement status is attained for one or more products for which we receive regulatory approval, less favorable coverage policies and reimbursement rates may be implemented in the future.

Healthcare reform

The U.S. and many foreign jurisdictions have enacted or proposed legislative and regulatory changes affecting the healthcare system. The U.S. government, state legislatures and foreign governments also have shown significant interest in implementing cost-containment programs to limit the growth of government-paid healthcare costs, including price controls, restrictions on reimbursement, and requirements for substitution of generic products for branded prescription drugs and biologics. In recent years, Congress has considered reductions in Medicare reimbursement levels for drugs and biologics administered by physicians. CMS, the agency that administers the Medicare and Medicaid programs, also has authority to revise reimbursement rates and to implement coverage restrictions for some drugs and biologics. Cost reduction initiatives and changes in coverage implemented through legislation or regulation could decrease utilization of and reimbursement for any approved products. While Medicare regulations apply only to drug benefits for Medicare beneficiaries, private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates. Therefore, any reduction in reimbursement that results from federal legislation or regulation may result in a similar reduction in payments from private payors.

By way of example, the U.S. and state governments continue to propose and pass legislation designed to reduce the cost of healthcare. In March 2010, the U.S. Congress enacted the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act, or the Affordable Care Act, which, among other things, includes changes to the coverage and payments for products under government healthcare programs. profitability of drug products through increased rebates for drugs reimbursed by Medicaid programs, extension of Medicaid rebates to Medicaid managed care plans, mandatory discounts for certain Medicare Part D beneficiaries and, annual fees based on pharmaceutical companies' share of sales to federal health care programs. Current laws, as well as other 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 for any approved products. Since the enactment of the Affordable Care Act, there have been, and continue to be, numerous judicial, administrative, executive, and legislative challenges to certain aspects of the Affordable Care Act, and there could be additional amendments to the Affordable Care Act in the future. It is unclear whether the Affordable Care Act will be overturned, repealed, replaced, or further amended. We cannot predict what affect further changes to the Affordable Care Act would have on our business.

Additionally, there have been several U.S. congressional inquiries and proposed federal and proposed and enacted state legislation designed to, among other things, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. For example, on August 16, 2022, the Inflation Reduction Act of 2022, or the IRA, was signed into law by President Biden. The IRA includes several provisions that may impact the pharmaceutical industry to varying degrees, including provisions that create a $2,000 out-of-pocket cap for Medicare Part D beneficiaries, impose new manufacturer financial liability on all drugs in Medicare Part D, allow 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, require companies to pay rebates to Medicare for drug prices that increase faster than inflation and delay the rebate rule that would require pass through of pharmacy benefit manager rebates to beneficiaries. The full impact of IRA on the pharmaceutical and healthcare industry in general is not yet known.

At the state level, legislatures have increasingly passed legislation and implemented regulations designed to control pharmaceutical 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 additional federal, state, and foreign healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in limited coverage and reimbursement and reduced demand for our products, once approved, or additional pricing pressures.

Employees and human capital resources

As of June 1, 2024, we had 58 employees, all of whom were full-time and 36 of whom were engaged in research and development activities. Twenty of our employees hold PhD or MD degrees. All laboratory personnel and our administrative team are based in and around Boston, Massachusetts. None of our employees are represented by a labor union or covered under a collective bargaining agreement. We consider our relationship with our employees to be good.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and new employees, advisors and consultants. The principal purposes of our equity and cash incentive plans are to attract, retain and reward personnel through the granting of stock-based and cash-based compensation awards, in order to increase stockholder value and the success of our company by motivating such individuals to perform to the best of their abilities and achieve our objectives.

Facilities

We currently lease approximately 30,000 square feet of office space and laboratory space in Cambridge, Massachusetts and approximately 5,300 square feet of office and laboratory space in Boulder, Colorado. We believe these facilities will be adequate for the foreseeable future and that suitable additional or substitute space will be available as and when needed.

Legal proceedings

From time to time, we may be subject to legal proceedings. We are not currently a party to or aware of any proceedings that we believe will have, individually or in the aggregate, a material adverse effect on our business, financial condition or results of operations. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources, and other factors.

Management

Executive officers and directors

The following table provides information regarding our current executive officers and directors, including their ages as of August 1, 2024:

Name	Age	Position(s)
Executive officers		
Josh Mandel-Brehm	41	President, Chief Executive Officer and Director
David Bumcrot, PhD	62	Chief Scientific Officer
Kelly Gold	47	Chief Financial Officer
Yuri Maricich	43	Chief Medical Officer
Non-employee directors		
Steven Holtzman[2][3]	70	Chair of the Board of Directors
James Boylan[1][3]	57	Director
Jorge Conde[4]	47	Director
Ingo Chakravarty[1]	56	Director
Michael Higgins[1][2]	62	Director
Amir Nashat, ScD	51	Director
Paula Ragan, PhD[3]	54	Director
Andrew J. Schwab	53	Director
Ravi I. Thadhani, MD, MPH[3]	58	Director
Richard Young, PhD[2]	70	Director

(1) Member of the audit committee.

(2) Member of the compensation committee.

(3) Member of the nominating and corporate governance committee.

(4) Mr. Conde is expected to resign as a director on or prior to the closing of this offering.

Josh Mandel-Brehm has served as our President and Chief Executive Officer and as a member of our board of directors since 2017. Mr. Mandel-Brehm was previously an Entrepreneur Partner of Polaris Partners from 2017 to October 2021. Mr. Mandel-Brehm also previously served as part of the Business Development group at Biogen Inc. from 2013 to 2017, where he led multiple strategic activities and corresponding transactions. Prior to Biogen, Mr. Mandel-Brehm held several roles of increasing responsibility at Genzyme Corporation from 2009 to 2013, including as part of the business development group for the company's rare disease business unit. Mr. Mandel-Brehm has also served as a member of the board of directors of ProMIS Neurosciences, Inc., a clinical-stage biotechnology company focused on generating and developing antibody therapeutics for the treatment of neurodegenerative diseases, since September 2021. Mr. Mandel-Brehm earned a BA in Biology from Washington University in St. Louis and an MBA from the University of Michigan. We believe Mr. Mandel-Brehm's extensive knowledge of, and experience in, the biopharmaceutical industry paired with his business development and executive management expertise qualifies him to serve on our board of directors.

David Bumcrot, PhD has served as our Chief Scientific Officer and Senior Vice President of Research since March 2020. Dr. Bumcrot previously served as our Vice President, Head of Biology from 2017 to March 2019 and Senior Vice President of Biology from March 2019 to March 2020. Prior to CAMP4, Dr. Bumcrot served as Senior Director, Molecular & Cell Biology at Editas Medicine from 2014 to 2017, where his team established the company's initial therapeutic programs utilizing groundbreaking CRISPR technology. Dr. Bumcrot previously served as the Head Research Scientist for the Laboratory for RNA Therapeutics at the Koch Institute for Integrative Cancer Research at the Massachusetts Institute of Technology from 2012 to 2013, and from 2002 to 2012 served at Alnylam Pharmaceutics in positions of increasing responsibility, including most recently as Director of

Research. Dr. Bumcrot earned a BS in Biology from Cornell University, a PhD in Molecular Biology from the University of Pennsylvania and completed a post-doctoral fellowship in the department of Cell & Molecular Biology at Harvard University.

Kelly Gold has served as our Chief Financial Officer since April 2022. Ms. Gold previously served as our Chief Business Officer from April 2021 to March 2022, and held positions of increasing responsibility in Finance and Corporate Development at our company from 2017 to March 2021. Ms. Gold previously served as Associate Director, Strategic Corporate Finance at Biogen Inc. from 2014 to 2017, where she provided financial leadership for the company's late stage and marketed rare disease programs and developed long term strategic financial trajectories for the R&D organization. Ms. Gold also previously served as a Healthcare Investment Banking Associate at Deutsche Bank from 2009 to 2013, where she worked in the healthcare investment banking group. Ms. Gold earned Bachelor's degrees in Life Sciences and Mechanical Engineering from Queen's University in Ontario and an MBA from the MIT Sloan School of Management.

Yuri Maricich, MD has served as our Chief Medical Officer since August 2023. Dr. Maricich is also currently Venture Partner and Advisor of Angelini Ventures, a venture capital firm investing in biotechnology, medical device, and digital health companies, where he has served since September 2022. Dr. Maricich previously served as Chief Medical Officer and Head of Development of Pear Therapeutics, Inc. from 2017 to April 2023. Pear Therapeutics filed for bankruptcy protection under Chapter 11 of the U.S. Bankruptcy code in April 2023. Dr. Maricich previously served as Chief Scientific Officer as well as VP of Neurology and Senior Medical Director of Cavion LLC from 2014 to 2016 and as President of Xdynia LLC from 2011 to 2014. He has practiced medicine as a licensed and board-certified internal medicine physician and has advised and consulted for a number of biotechnology, medical device, and digital health companies as well as investment firms over the years, including serving on a Scientific Advisory Board to Roche Holding AG in 2019. Dr. Maricich earned a BS in Pre-Professional Studies from the University of Notre Dame, an MD from the University of Washington, and an MBA from Harvard University.

Steven Holtzman has served as Chair of our board of directors and as a Strategic Business Advisor to our company since October 2019. Mr. Holtzman was the first President and Chief Executive Officer and a member of the board of directors of Decibel Therapeutics, Inc., a biotechnology company, from 2016 to January 2020. Prior to Decibel, Mr. Holtzman served as Executive Vice President, Corporate Development of Biogen, Inc. from 2011 to 2016. Prior to Biogen, Mr. Holtzman served as the Chief Executive Officer of Infinity Pharmaceuticals, Inc. from 2001 to 2010. Mr. Holtzman has also served as a member of the board of directors of Molecular Partners AG, a clinical-stage biopharmaceutical company since May 2014. Mr. Holtzman earned a BA in Philosophy from Michigan State University and a BPhil in Philosophy from Corpus Christi College, Oxford University, which he attended as a Rhodes Scholar. We believe Mr. Holtzman's strategic development and industry experience qualifies him to serve on our board of directors.

James Boylan has served as a member of our board of directors since June 2022. Mr. Boylan has served as Chief Executive Officer of Enavate Sciences, a portfolio company of Patient Square Capital, since May 2022. Mr. Boylan previously served as President and Head of Investment Banking of SVB Leerink from 2009 to April 2021. Mr. Boylan has also served as a member of the board of directors of Immunome Inc., a biotechnology company developing targeted cancer therapies, since October 2023 and as a member of the board of Compass Therapeutics, Inc., a clinical stage biopharmaceutical company developing next generation antibodies into cancer therapies, since November 2022. Mr. Boylan earned a BS in Finance from Lehigh University and an MBA in finance from the Columbia Business School. We believe Mr. Boylan's extensive investment and business experience in the life sciences and biotechnology sectors qualifies him to serve on our board of directors.

Jorge Conde has served as a member of our board of directors since 2018 and is expected to resign as a director upon or prior to the closing of this offering. Mr. Conde has served as a General Partner at Andreessen Horowitz since June 2017, where he leads investments at the cross section of biology, computer science and engineering. Mr. Conde previously served as Chief Strategy Officer for Syros Pharmaceuticals, Inc. from 2016 to 2017, and as its Chief Product Officer from 2014 to 2016. Prior to joining Syros, from 2007 to 2014, Mr. Conde served in various roles at Knome, Inc., a genomics company, including as Founding Chief Executive Officer, Chief Financial

Officer and Chief Product Officer. Earlier in his career, Mr. Conde served in marketing and operations at MedImmune, LLC, managed the business development function at Helicos Biosciences Corporation, a DNA sequencing company, and worked as a biotechnology investment banker at Morgan Stanley. Mr. Conde holds a B.A. in Biology from Johns Hopkins University, an M.S. from the Harvard-MIT Division of Health Sciences and Technology, and an MBA from Harvard Business School. We believe Mr. Conde's extensive investment and life sciences industry experience qualifies him to serve on our board of directors.

Ingo Chakravarty has served as a member of our board of directors since April 2024. Mr. Chakravarty is an Operating Partner for Northpond Ventures, a venture capital firm. Prior to joining Northpond Ventures, Mr. Chakravarty was President and Chief Executive Officer of Mesa Biotech, Inc., or Mesa Biotech, a point-of-care molecular diagnostic company, from April 2020 to February 2021, when it was acquired by Thermo Fisher Scientific Inc.; Mr. Chakvaraty continued to serve as General Manager of Mesa Biotech until March 2023. Prior to Mesa Biotech, Mr. Chakravarty was Chief Executive Officer of Navican Genomics, Inc., a precision care company, from 2016 to November 2019. Mr. Chakravarty has a degree in Electrical Engineering from the Friedrich Heacker School in Germany. We believe Mr. Chakravarty's significant leadership experience in the life sciences and biotechnology industry qualifies him to serve on our board of directors.

Michael Higgins has served as a member of our board of directors since 2017. Mr. Higgins is a serial entrepreneur who has helped launch and build numerous companies during his career. He served as Entrepreneur-in-Residence at Polaris Partners, a venture capital firm, from 2015 to 2020. From 2003 to 2014 he served as Senior Vice President, Chief Operating Officer at Ironwood Pharmaceuticals Inc, a biopharmaceutical company. Prior to 2003, Mr. Higgins held a variety of senior business positions at Genzyme Corporation, including Vice President of Corporate Finance and Vice President of Business Development. Mr. Higgins has served as a member of the board of directors of Voyager Therapeutics, Inc., or Voyager, since 2015. He was appointed Chair of the board of directors of Voyager in June 2019 and also served as the interim president and chief executive officer of Voyager from June 2021 to March 2022. Mr. Higgins has also served as a member of the board of directors of Cyclerion Therapeutics, Inc., a biopharmaceutical company, since November 2023 and as chair of the board of directors of Pulmatrix, Inc., a biopharmaceutical company, since April 2020. Mr. Higgins previously served as a member of the board of directors of Genocea Biosciences Inc., an immuno-oncology company, from 2015 to May 2022. Mr. Higgins earned a BS from Cornell University and an MBA from the Amos Tuck School of Business at Dartmouth College. We believe that Mr. Higgins' financial and business expertise, including his diversified background as an executive officer in public pharmaceuticals companies and service on the boards of directors of other life sciences companies, qualifies him to serve as a member of the board of directors.

Amir Nashat, ScD has served as a member of our board of directors since 2015. Mr. Nashat is an executive partner at Polaris Partners, a venture capital firm, where he has worked since 2002. Mr. Nashat currently represents Polaris on the board of directors of Morphic Holding, Inc., a biopharmaceutical company developing small molecule integrin therapeutics, where he has served since 2017. Mr. Nashat previously served as a member of the boards of directors of Scholar Rock Holding Corporation from 2012 to June 2024, of Fate Therapeutics, Inc., from 2007 to May 2020, of Selecta Biosciences, Inc., from 2008 to April 2020, and of Syros Pharmaceuticals, Inc., from 2016 to September 2022. Prior to joining Polaris, Mr. Nashat completed his ScD as a Hertz Fellow in Chemical Engineering at the Massachusetts Institute of Technology with a minor in Biology. Mr. Nashat also earned both his MS and BS in Materials Science and Mechanical Engineering at the University of California, Berkeley. We believe Dr. Nashat's extensive biotechnology investment experience qualifies him to serve on our board of directors.

Paula Ragan, PhD has served as a member of our board of directors since May 2019. Dr. Ragan has served as chief executive officer & president of X4 Pharmaceuticals, Inc., or X4, a commercial-stage clinical biopharmaceutical company, since 2014. Dr. Ragan previously served as consulting chief business officer of Lysosomal Therapeutics Inc. from to 2013 to 2014. Prior to LTI, Dr. Ragan served as senior director at Genzyme, where she led strategic partnering efforts for Genzyme's Rare Disease Business and headed the supply chain planning for Genzyme's flagship commercial products, from 2007 to 2012. Dr. Ragan has also served as a member of the board of directors of X4 since 2014. Dr. Ragan earned a BS in Mechanical Engineering from Tufts University, an MS in Biomedical Engineering from Boston University, and a PhD from the Massachusetts Institute of Technology. We

believe Dr. Ragan's industry-specific business expertise and experience as a public company chief executive qualifies her to serve on our board of directors.

Andrew J. Schwab has served as a member of our board of directors since March 2021. Mr. Schwab is a Founding Partner and Managing Partner of 5AM Venture Management, LLC, an investment firm focused on life sciences companies, where he has served since 2002. Mr. Schwab has served as a member of the board of directors of Skye Bioscience, Inc., a biopharmaceutical company focused on the development of cannabinoid derivatives, since August 2023. Mr. Schwab previously served as a member of the boards of directors of Enliven Therapeutics, Inc., a biopharmaceutical company focused on the development of small molecule kinase inhibitors, from January 2022 to June 2023, of Pear Therapeutics, Inc. from 2014 to June 2022 and of 5:01 Acquisition Corp. from September 2020 to October 2022. Mr. Schwab earned a BS with Honors in Genetics and Ethics from Davidson College. We believe Mr. Schwab's extensive experience in management positions and on the boards of several life sciences companies qualifies him to serve on our board of directors.

Ravi I. Thadhani, MD, MPH has served as a member of our board of directors since October 2021. Dr. Thadhani has served as Executive Vice President for Health Affairs of Emory University, Executive Director of Emory's Woodruff Health Sciences Center, and Vice Chair of the Emory Healthcare Board of Directors since January 2023. Dr. Thadhani previously served as Chief Academic Officer and Dean for Faculty Affairs of Mass General Brigham from November 2019 to December 2022, and as a Professor of Medicine at Harvard Medical School from 2012 to December 2022. Prior to this, Dr. Thadhani served as Vice Dean of Research and Graduate Research Education at Cedars-Sinai Medical Center from 2017 to October 2019. Dr. Thadhani earned a BA in Liberal Arts from the University of Notre Dame, an MPH from the Harvard T.H. Chan School of Public Health and an MD from the University of Pennsylvania School of Medicine. We believe Dr. Thadhani's research expertise and medical background and training qualifies him to serve on our board of directors.

Richard Young, PhD has served as a member of our board of directors since 2016. Dr. Young has served as a Professor of Biology at the Massachusetts Institute of Technology and a member of the Whitehead Institute since 1984. He was elected into the National Academy of Sciences in 2012 and the National Academy of Medicine in 2019. Dr. Young has served as an advisor to the National Institutes of Health and the World Health Organization. Dr. Young has also served as a member of the board of directors of Syros Pharmaceuticals, Inc., a biotechnology company, since 2011, and as a member of the board of directors of Omega Therapeutics, Inc., a biotechnology company, since 2017. Dr. Young earned a BS in Biological Science from Indiana University and a PhD in Molecular Biophysics and Biochemistry from Yale University. We believe Dr. Young's scientific expertise and his role as one of our scientific co-founders qualifies him to serve on our board of directors.

Board composition

Our business and affairs are managed under the direction of our board of directors, which currently consists of 11 members. The primary responsibilities of our board of directors are to provide oversight, strategic guidance, counseling and direction to our management. Our board of directors meets on a regular basis and additionally as required.

Upon the completion of this offering, our board of directors will consist of 10 members, all of whom were elected as directors pursuant to the board composition provisions of our Third Amended and Restated Voting Agreement, or the Voting Agreement, among us and our stockholders. The Voting Agreement will terminate upon the completion of this offering, at which point no stockholder will have any special rights regarding the election or designation of the members of our board of directors. Our current directors elected to our board of directors pursuant to the Voting Agreement will continue to serve as directors until a successor is duly elected and qualified, or until his or her earlier resignation or removal.

Our board of directors may establish the authorized number of directors from time to time by resolution. In accordance with our Restated Charter that will be in effect upon the completion of this offering, immediately after this offering, our board of directors will be divided into three classes with staggered three-year terms. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve

from the time of election and qualification until the third annual meeting following election. Our directors will be divided among the three classes as follows:

- Class I, which will consist of , and , and their terms will expire at our first annual meeting of stockholders to be held after the closing of this offering;
- Class II, which will consist of , and , and their terms will expire at our second annual meeting of stockholders to be held after the closing of this offering; and
- Class III, which will consist of , and , and their terms will expire at our third annual meeting of stockholders to be held after the closing of this offering.

Our Restated Bylaws, which will become effective upon the closing of this offering, will provide that the authorized number of directors may be changed only by resolution approved by a majority of our board of directors. Any additional directorships resulting from an increase in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the directors. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change of control.

Director independence

Under the rules of the Nasdaq Stock Market, or the Nasdaq Listing Rules, independent directors must comprise a majority of a listed company's board of directors within one year of the completion of its initial public offering. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit and compensation committees be independent and that director nominees be selected or recommended for the board's selection by independent directors constituting a majority of the independent directors or by a nominating and corporate governance committee comprised solely of independent directors. Under the Nasdaq Listing Rules, a director will only qualify as "independent" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director and that such person is "independent" as defined under the Nasdaq Listing Rules and the rules under the Securities Exchange Act of 1934, as amended, or the Exchange Act.

Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee: (1) accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or (2) be an affiliated person of the listed company or any of its subsidiaries.

Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that each of our directors, with the exception of Mr. Mandel-Brehm, is an "independent director" as defined under the Nasdaq Listing Rules, including, in the case of all the members of our audit committee, the independence criteria set forth in Rule 10A-3 under the Exchange Act, and in the case of all the members of our compensation committee, the independence criteria set forth in Rule 10C-1 under the Exchange Act and are "non-employee directors" as defined in Section 16b-3 of the Exchange Act. In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with our company and all other facts and circumstances our board of directors deemed relevant in determining their independence, including the beneficial ownership of our shares by each non-employee director and the transactions described in the section titled "Certain relationships and related person transactions."

There are no family relationships among any of our directors or executive officers.

Role of the board in risk oversight

Our board of directors has, and, upon the completion of this offering, its committees will also have, an active role in overseeing the management of our risks. Our board of directors is responsible for general oversight of risks and regular review of information regarding our risks, including credit risks, liquidity risks and operational risks. The compensation committee will be responsible for overseeing the management of risks relating to our executive compensation plans and arrangements. The audit committee will be responsible for overseeing the management of risks relating to accounting matters and financial reporting, as well as risks relating to cybersecurity matters. The nominating and governance committee will be responsible for overseeing the management of risks associated with the independence of our board of directors and potential conflicts of interest. Although each committee will be responsible for evaluating certain risks and overseeing the management of such risks, the entire board of directors will be regularly informed through discussions from committee members about such risks.

Board committees

Our board of directors will establish an audit committee, a compensation committee and a nominating and corporate governance committee. The composition and responsibilities of each of the committees of our board of directors are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors. Each committee intends to adopt a written charter that satisfies the application rules and regulation of the SEC and the Nasdaq Listing Rules, which we will post to our website at www.camp4tx.com upon the completion of this offering. Our board of directors may establish other committees as it deems necessary or appropriate from time to time. Information contained on, or accessible through, our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is only an inactive textual reference.

Audit committee

Our audit committee will operate under a written charter, to be effective prior to the completion of this offering, that satisfies the applicable Nasdaq Listing Rules.

The audit committee's responsibilities upon completion of this offering will include:

- appointing, approving the compensation of, and evaluating the qualifications, performance, procedures and independence of, our independent registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of written periodic reports from such firm;
- pre-approving all audit and permitted non-audit services to be performed by our independent registered public accounting firm;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures, including earnings releases;
- overseeing and periodically reviewing with our independent registered public accounting firm our compliance with all applicable requirements of the Public Company Accounting Oversight Board;
- reviewing and discussing with management and our independent registered public accounting firm any material issues regarding accounting principles and financial statement presentations and the steps taken to deal with such issues;
- reviewing disclosures about any significant deficiencies or material weaknesses in our internal control structures and procedures, including disclosures in our annual and quarterly reports;
- coordinating our board of directors' oversight of our internal control over financial reporting, disclosure controls and procedures, code of business conduct and ethics, procedures for complaints and legal and regulatory matters;

- reviewing and discussing with management and our independent registered public accounting firm any material issues regarding cybersecurity risks and processes for assessing, identifying and managing material risks from cybersecurity threats;
- discussing our risk management policies with management;
- establishing policies regarding hiring employees from our independent registered public accounting firm and procedures for the receipt and retention of accounting related complaints and concerns;
- meeting independently with our independent registered public accounting firm and management;
- reviewing and approving any related person transactions;
- overseeing our guidelines and policies governing risk assessment and risk management;
- overseeing and periodically reviewing the integrity of our information technology systems, process and data;
- preparing the audit committee report required by SEC rules;
- reviewing and assessing, at least annually, the adequacy of the audit committee's charter; and
- performing, at least annually, an evaluation of the performance of the audit committee.

All audit services and all non-audit services, other than de minimis non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

The members of our audit committee are Messrs. Higgins, Boylan and Chakravarty. Mr. Higgins chairs the audit committee. Our board of directors has determined that each member of our audit committee has sufficient knowledge in financial and auditing matters to serve on the audit committee. Our board of directors has also determined that Mr. Higgins is an "audit committee financial expert," as defined under Item 407 of Regulation S-K.

We expect to satisfy the member independence requirements for the audit committee prior to the end of the transition period provided under the Nasdaq Listing Rules and SEC rules and regulations for companies completing their initial public offering.

Compensation committee

Our compensation committee will operate under a written charter, to be effective prior to the completion of this offering, that satisfies the applicable Nasdaq Listing Rules.

Our compensation committee's responsibilities upon completion of this offering will include:

- reviewing and establishing our overall management compensation strategy and benefits philosophy and policies, including base salary, incentive compensation and equity-based grants;
- reviewing and approving performance goals and objectives relevant to compensation of our chief executive officer and other executive officers;
- evaluating the performance of the chief executive officer and executive officers in light of their performance goals and objectives, including during executive sessions of non-employee directors, and recommending to our board of directors the compensation of our chief executive officer and other executive officers;
- reviewing and making recommendations to the board of directors with respect to non-employee director compensation;
- reviewing, overseeing and administering our equity incentive plans, granting awards under such plan and making recommendations to the board of directors about the adoption of any new or modifying existing equity-based, cash-based, management incentive and deferred compensation plans;
- establishing and reviewing "clawback" policies that allow the recouping of incentive compensation;

- reviewing, considering and selecting, to the extent determined to be advisable, a peer group of appropriate companies for purposing of benchmarking and analysis of compensation for our executive officers and non-employee directors;
- recommending to our board of directors any stock ownership guidelines for our executive officers and non-employee directors, periodically assessing these guidelines and recommending revisions as appropriate, and monitoring individual compliance with these guidelines;
- retaining, appointing or obtaining advice of a compensation consultant, legal counsel or other advisor and determining the compensation and independence of such consultant or advisor;
- preparing, if required, the compensation committee report on executive compensation for inclusion in our annual report on Form 10-K and our proxy statement in accordance with SEC rules;
- monitoring our compliance with the requirements of Sarbanes-Oxley relating to loans to directors and officers;
- reviewing and approving all employment contract and other compensation, severance and change-in-control arrangements for our executive officers;
- establishing and periodically reviewing policies and procedures with respect to perquisites as they relate to our executive officers;
- reviewing the risks associated with our compensation policies and practices;
- overseeing the maintenance and presentation to our board of directors of management's plans for succession to senior management positions based on guidelines developed and recommended to the compensation committee to the full board of directors;
- reviewing our strategies, initiatives and programs with respect to our culture, talent recruitment, development, and retention, employee engagement and diversity and inclusion;
- maintaining minutes of the compensation committee and reporting its actions and any recommendations to the board of directors on a periodic basis;
- reviewing and assessing, at least annually, the adequacy of the compensation committee's charter; and
- performing, on an annual basis, an evaluation of the performance of the compensation committee.

The members of our compensation committee are Messrs. Holtzman and Higgins and Dr. Young. Mr. Holtzman chairs the compensation committee.

We expect to satisfy the member independence requirements for the compensation committee prior to the end of the transition period provided under the Nasdaq Listing Rules and SEC rules and regulations for companies completing their initial public offering.

Nominating and corporate governance committee

Our nominating and corporate governance committee will operate under a written charter, to be effective prior to the completion of this offering, that satisfies the applicable Nasdaq Listing Rules.

Our nominating and corporate governance committee's responsibilities upon completion of this offering will include:

- actively seeking and identifying individuals qualified to become members of our board of directors consistent with criteria approved by the board and receiving nominations for such qualified individuals;
- recommending to our board of directors the persons to be nominated for election as directors and to each committee of the board;
- establishing a policy under which our stockholders may recommend a candidate to the nominating and corporate governance committee for consideration for nomination as a director;

- reviewing and recommending committee slates on an annual basis;
- recommending to our board of directors qualified candidates to fill vacancies on our board of directors;
- developing and recommending to our board of directors a set of corporate governance principles applicable to us and reviewing the principles on at least an annual basis;
- reviewing and making recommendations to our board with respect to our board size, composition, leadership structure and board committee structure;
- reviewing, in concert with our board of directors, our policies with respect to significant issues of corporate public responsibility, including but not limited to sustainability, diversity and inclusion and environmental, social and governance initiatives;
- making recommendations to our board of directors of processes for annual evaluations of the performance of our board of directors and committees of our board of directors;
- overseeing the process for annual evaluations of our board of directors and committees of our board of directors;
- considering and reporting to our board of directors any questions of possible conflicts of interest of members of our board of directors;
- reviewing with management the company's social corporate responsibility activities, policies, and program;
- providing new director orientation and continuing education for existing directors on a periodic basis;
- overseeing the maintenance and presentation to our board of directors of management's plans for succession to senior management positions in the company;
- reviewing and assessing, at least annually, the adequacy of the nominating and corporate governance committee's charter; and
- performing, on an annual basis, an evaluation of the performance of the nominating and corporate governance committee.

The members of our nominating and corporate governance committee are Drs. Ragan and Thadhani and Messrs. Boylan and Holtzman. Dr. Ragan chairs the nominating and corporate governance committee. Our board of directors has determined that each member of the nominating and corporate governance committee satisfies the independence standards of the applicable Nasdaq Listing Rules.

Our board of directors may establish other committees from time to time.

Code of business conduct and ethics

Effective upon the closing of this offering, we will adopt a Code of Business Conduct and Ethics, or the Code of Conduct, applicable to all of our employees, executive officers and directors. This includes our principal executive officer, principal financial officer and principal accounting officer or controller, or persons performing similar functions. Following the closing of this offering, the full text of the Code of Conduct will be available on our website at www.camp4tx.com. We intend to disclose on our website any future amendments of our Code of Business Conduct and Ethics or waivers that exempt any principal executive officer, principal financial officer, principal accounting officer or controller, persons performing similar functions or our directors from provisions in the Code of Business Conduct and Ethics. Information contained on, or that can be accessed through, our website is not incorporated by reference into this prospectus. We have included our website in this prospectus solely as an inactive textual reference.

Compensation committee interlocks and insider participation

None of the members of the compensation committee is currently, or has been at any time, one of our officers or employees. None of our executive officers currently serves, or has served during the last completed fiscal year, as a member of the board of directors or compensation committee of any entity that has one or more executive officers serving as a member of our board of directors or compensation committee.

Executive and director compensation

The following discussion and analysis of compensation arrangements should be read with the compensation tables and related disclosures set forth below. This discussion contains forward looking statements that are based on our current plans and expectations regarding future compensation programs. The actual compensation programs that we adopt may differ materially from the programs summarized in this discussion.

Introduction

This section describes the material elements of the compensation awarded to, earned by, or paid to our President and Chief Executive Officer, Joshua Mandel-Brehm, our CEO, and our next two most highly compensated executive officers, Kelly Gold, our Chief Financial Officer, and David Bumcrot, our Chief Scientific Officer, for our fiscal year ended December 31, 2023. These executives are collectively referred to as our named executive officers.

Prior to this offering, our board of directors, or the Board, was responsible for determining the compensation of our CEO and the compensation committee of our Board, or the Committee, made recommendations to our Board regarding such compensation and was responsible for determining the compensation of our other executive officers. Our CEO made recommendations to our Committee about the compensation of his direct reports, including Ms. Gold and Mr. Bumcrot.

Summary compensation table

The following table sets forth the compensation awarded to, earned by, or paid to our named executive officers in respect of their service to us for the fiscal year ended December 31, 2023:

Name and principal position	Year	Salary ($)	Nonequity incentive plan compensation ($)(1)	All other compensation ($)(2)	Total ($)
Joshua Mandel-Brehm *Chief Executive Officer*	2023	$546,000	$ 140,381	$ 9,900	$696,281
Kelly Gold *Chief Financial Officer*	2023	$425,000	$ 111,190	$ 92,644	$628,834
David Bumcrot *Chief Scientific Officer*	2023	$390,000	$ 102,033	$ 9,900	$501,933

(1) The amounts shown in this column represent annual bonuses earned with respect to fiscal year 2023 under our annual bonus program, which is described below under “Annual bonuses.”

(2) The amounts shown in the “All other compensation” column reflect (i) in the case of Messrs. Mandel-Brehm and Bumcrot, the company’s non-elective contribution to our 401(k) plan, described below under “Employee and retirement benefits” and (ii) in the case of Ms. Gold, the company’s non-elective contribution to our 401(k) plan ($9,900), commuting and housing expenses ($73,094), and fees for professional memberships ($9,650).

Narrative disclosure to summary compensation table

Annual base salary

The initial base salary of Mr. Mandel-Brehm was set forth in his employment agreement, as subsequently amended and restated, and the initial base salaries for Ms. Gold and Mr. Bumcrot were set forth in their respective offer letter agreements. For 2023, Mr. Mandel-Brehm’s annual base salary was $546,000, Ms. Gold’s annual base salary was $425,000, and Mr. Bumcrot’s annual base salary was $390,000.

Annual bonuses

During fiscal year 2023, each of our named executive officers was eligible to receive an annual performance bonus, with the target amount of such bonus, expressed as a percentage of base salary, equal to 30%. Annual

performance bonuses were based on the attainment of both a company and an individual performance factor. Our Committee makes a recommendation to our Board with respect to the company's achievement against its corporate goals, with our Board approving a final bonus pool. Our Board evaluates the individual performance of our CEO and our Committee, in consultation with our CEO, evaluates the individual performance of our other executives, including Ms. Gold and Mr. Bumcrot.

Agreements with our named executive officers

Each of our named executive officers is party to an employment agreement or offer letter with us that sets forth the terms and conditions of the executive officer's employment with us. We entered into an amended and restated employment agreement with Mr. Mandel-Brehm, dated December 12, 2019, and offer letter agreements with Ms. Gold and Mr. Bumcrot dated June 16, 2017 and July 1, 2017, respectively, that in each case provides for the executive's entitlement to an annual base salary, as described above, and participation in our employee benefit plans, as in effect from time to time. In addition, each executive is subject to a separate Employee Confidentiality and Assignment Agreement, which contains certain restrictive covenant obligations, including covenants relating to confidentiality and assignment of developments, as well as covenants not to compete or solicit certain of our service providers, customers and suppliers during employment and for a 12-month period following termination of employment.

Potential payments upon termination of employment

Each of our named executive officers is entitled to severance and other benefits upon a termination of his or her employment in certain circumstances, as described below. The terms "cause" and "good reason" referred to below are defined in the named executive officer's employment agreement or change in control severance agreement, as applicable, the term "sale event" referred to below is defined in our 2016 Plan and the term "change in control" is defined in the executive's change in control severance agreement.

Mr. Mandel-Brehm. Under his amended and restated employment agreement, if Mr. Mandel-Brehm's employment is terminated by us without cause or by him for good reason, each a "qualifying termination," other than in connection with a "sale event," he will be entitled to receive (i) continued payment of his annual base salary for a period of twelve months following termination of his employment and (ii) a monthly amount equal to the amount we contribute to Mr. Mandel-Brehm's group medical, dental, and/or vision insurance premiums, or the COBRA Continuation, until the end of his severance period or the expiration of his rights under COBRA. In the event of a qualifying termination within thirty days prior to, or twelve months following, a sale event, Mr. Mandel-Brehm will be entitled to receive (i) continued payment of his annual base salary for a period of 18 months following termination of his employment, (ii) COBRA Continuation until the end of such 18-month period, or, if earlier, the expiration of his COBRA rights, and (iii) full acceleration of his outstanding and unvested time-based equity awards.

Mr. Mandel-Brehm is not entitled to a tax gross-up payment for any "golden parachute" excise taxes, but his employment agreement provides for him to receive a cutback of any so-called "parachute payments" if such reduced amount would result in a greater economic benefit to him after accounting for the impact of the excise taxes on such unreduced parachute payments.

Pursuant to a change in control severance agreement with the company, each of Ms. Gold and Mr. Bumcrot is entitled to the following severance amounts in the event of a qualifying termination within thirty days prior to, or twelve months following, a change in control: (i) continued payment of her or his annual base salary for a period of six months following termination of her or his employment, (ii) a monthly COBRA amount equal to the company's portion of the premiums under its group health plan until the earlier of the end of the six-month severance period or the date on which the executive becomes covered under another employer's health plan and (iii) full acceleration of all of her or his outstanding and unvested time-based equity awards.

Our obligation to provide our named executive officers with severance payments and other benefits under their respective agreements is conditioned on the executive officer signing a separation agreement that includes a release of claims in favor of us.

In connection with this offering, our Board adopted a severance and change in control plan, or the CiC Plan, in which certain employees of the Company and its subsidiaries at the level of vice president and above, other than our CEO, are eligible to participate. Under the CiC Plan, in the event the employment of an executive officer participant, including Ms. Gold and Mr. Bumcrot, is terminated by us without Cause or by such participant for Good Reason (as such terms are defined in the CiC Plan), in either case during the period beginning three months prior to the consummation of a Change in Control (as defined in the CiC Plan) and ending twelve months thereafter, or a Qualifying Termination (as defined in the CiC Plan), he or she is entitled to receive (i) a lump sum payment equal to twelve months of the executive officer's annual base salary, (ii) a monthly COBRA amount equal to our portion of the premiums under our group health plan until the earlier of the end of the twelve-month period following the Qualifying Termination or the date on which the executive officer becomes covered under another employer's health plan; (iii) a payment equal to the executive officer's target annual cash incentive award for the year of the Qualifying Termination, or the CiC Bonus Payment; and (iv) full acceleration of all of her or his outstanding and unvested time-based equity awards. Severance payments and benefits under the CiC Plan are subject to the executive officer executing and not revoking a release of claims and continuing to comply with applicable restrictive covenants.

In connection with this offering, we entered into a further amended and restated employment agreement with Mr. Mandel-Brehm that contains terms substantially similar to his existing agreement, except that (i) the change in control protection period was adjusted to align with the corresponding period in the CiC Plan and (ii) in the event of a qualifying termination of his employment within such protection period, in addition to the payments and benefits set forth in his employment agreement, as described above, Mr. Mandel-Brehm will also be entitled to receive the CiC Bonus Payment.

Equity compensation

We did not grant any equity awards to our named executive officers during fiscal year 2023, but in prior years and in 2024 we granted equity awards to certain of our named executive officers to help align their interests with those of our stockholders.

Employee and retirement benefits

We currently provide broad-based health and welfare benefits to our full-time employees, including our named executive officers, including health, life, disability, vision, and dental insurance. In addition, we maintain a safe-harbor 401(k) retirement plan under which we make a 3% non-elective contribution to eligible plan participants. Other than the 401(k) plan, we do not provide any qualified or non-qualified retirement or deferred compensation benefits to our employees, including our named executive officers.

Certain of our named executive officers also receive limited perquisites, which are described above in the footnotes to the "Summary compensation table."

Outstanding equity awards at fiscal year-end

The following table sets forth information about the outstanding equity awards held by each of our named executive officers as of December 31, 2023:

	Option awards				Stock awards	
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date	Number of shares or units of stock that have not vested	Market value of shares or units of stock that have not yet vested(1)
Joshua Mandel-Brehm	280,940	—	$ 0.19	5/22/27		
	25,443	—	$ 0.19	12/4/27		
	344,549	—	$ 0.19	9/4/28		
	31,804	—	$ 0.19	3/12/29		
	15,570(2)	332	$ 0.19	2/19/30		
	328,125(3)	421,875	$ 0.49	3/23/32		
	1,197,593(4)	2,634,707	$ 0.75	12/7/32		
					332(5)	$ 269
					937,573(6)	$ 759,434
Kelly Gold	16,962	—	$ 0.19	9/26/27		
	4,240	—	$ 0.19	12/4/27		
	31,804	—	$ 0.19	9/4/28		
	6,360	—	$ 0.19	3/12/29		
	53,007	—	$ 0.19	6/18/29		
	8,304(2)	177	$ 0.19	2/19/30		
	72,187(3)	92,813	$ 0.49	3/23/32		
	324,156(4)	713,144	$ 0.75	12/7/32		
					177(5)	$ 143
					212,031(6)	$ 171,745
David Bumcrot	530	—	$ 0.19	5/22/27		
	56,188	—	$ 0.19	9/26/27		
	7,421	—	$ 0.19	12/4/27		
	6,360	—	$ 0.19	3/12/29		
	48,767	—	$ 0.19	6/18/29		
	46,089(2)	981	$ 0.19	2/19/30		
	76,562(3)	98,438	$ 0.49	3/23/32		
	307,062(4)	675,538	$ 0.75	12/7/32		
					160(5)	$ 130
					212,031(6)	$ 171,745

(1) Because we were not publicly traded during 2023, there was no readily ascertainable public market value for our shares. Stock awards reported in this table were valued based on the fair market value of a share of our common stock as of December 31, 2023 ($0.81), as determined by our Board based on a third-party valuation.

(2) Reflects stock options that fully vested on January 1, 2024.

(3) Reflects stock options that vest in equal monthly installments over the 48 monthly anniversaries of the vesting start date of March 1, 2022, subject to the named executive officer's continued employment.

(4) Reflects stock options that vest in equal monthly installments over the 48 monthly anniversaries of the vesting start date of September 1, 2022, subject to the named executive officer's continued employment.

(5) Reflects restricted stock awards that fully vested on January 1, 2024.

(6) Reflects restricted stock received upon the early exercise of a stock option award, which vests in equal monthly installments over the 48-month period beginning March 31, 2021, and on which restrictions will fully lapse on March 31, 2025, subject to the named executive officer's continued employment.

Director compensation

The following table sets forth the compensation paid to, received by, or earned during fiscal year 2023 by the non-employee directors of our Board. Directors, other than those individuals who were elected to the Board pursuant to the provisions of the Voting Agreement and who were not separately compensated for their Board service in 2023, receive an annual retainer of $35,000, which is payable either monthly or at the start of each calendar quarter. Mr. Holtzman receives an additional fee of $15,000 for serving as the Chairman of the Board; Dr. Young receives an additional fee of $7,500 for serving as the Chair of the Research & Development Committee; Mr. Higgins receives an additional fee of $7,500 for serving as the Chair of the Compensation Committee; and Dr. Ragan receives an additional fee of $7,500 for serving as the Chair of the Audit Committee.

Name	Fees earned or paid in cash ($)	All other compensation ($)	Total ($)
Richard Young, PhD(2)	$ 42,500	$ 100,000(1)	$142,500
Steve Holtzman(2)	$ 50,000	$ 75,000(1)	$125,000
Michael Higgins(2)	$ 42,500	—	$ 42,500
Paula Ragan, PhD(2)	$ 42,500	—	$ 42,500
Ravi Thadani, MD, MPH(2)	$ 35,000	—	$ 35,000
James Boylan	—	—	—
Andrew J. Schwab	—	—	—
Amir Nashat, ScD	—	—	—
Jorge Conde	—	—	—
Diana Bernstein	—	—	—
Ingo Chakravarty	—	—	—

(1) Dr. Young and Mr. Holtzman are each party to a consulting agreement with the Company pursuant to which such individuals provide strategic and other business consulting services to the Company in exchange for an annual retainer ($100,000 for Dr. Young and $75,000 for Mr. Holtzman).

(2) As of December 31, 2023, the following directors held unvested Company stock options and restricted stock awards, or RSAs, as follows: Dr. Young, 482,420 options and 246,486 RSAs; Mr. Holtzman, 675,263 options and 282,929 RSAs; Mr. Higgins 109,932 options and 59,634 RSAs; Ms. Ragan, 109,932 options and 59,634 RSAs; and Dr. Thadhani, 109,932 options and 75,536 RSAs.

In connection with this offering, we intend to adopt a non-employee director compensation policy, which will become effective upon completion of this offering. Under the policy, our non-employee directors will be compensated as follows:

- each non-employee director will receive an annual cash retainer of $40,000 ($70,000 for the chair of our Board);
- each non-employee director who is a member of the audit committee will receive an additional annual cash retainer of $7,500 ($15,000 for the audit committee chair);
- each non-employee director who is a member of our compensation committee will receive an additional annual cash retainer of $5,000 ($10,000 for our compensation committee chair);
- each non-employee director who is a member of the nominating and corporate governance committee will receive an additional annual cash retainer of $5,000 ($10,000 for the nominating and corporate governance committee chair); and
- each non-employee director who is a member of the research and development committee will receive an additional annual cash retainer of $5,000 ($10,000 for the research and development committee chair).

Under the policy, each non-employee director who is first elected or appointed to our Board in connection with or after the completion of this offering will be granted an option under the 2024 Plan (as defined below), to

purchase shares of our common stock, such stock option to vest in monthly installments over three years from grant. Commencing in fiscal 2025, each non-employee director who is not first elected or appointed to the Board during the fiscal year of the annual meeting of our stockholders will be granted an annual option under the 2024 Plan to purchase shares of our common stock, such stock option to vest in full on the first anniversary of grant (or the next annual meeting, if earlier).

Each non-employee director is also entitled to reimbursement for reasonable travel and other expenses incurred in connection with attending meetings of our Board and any committee on which he or she serves.

Equity plans

2016 Plan

In 2016, our Board adopted, and our stockholders approved, our Amended and Restated 2016 Stock Option and Grant Plan, or the 2016 Plan. The 2016 Plan permits the grant of incentive stock options, nonqualified stock options, restricted stock awards, restricted stock units, or RSUs, and unrestricted stock awards to our officers, employees, directors, consultants, and other key individuals. As of June 30, 2024, awards in respect of 28,044,498 shares of our common stock were outstanding under the 2016 Plan and 10,746,586 shares remained available for future issuance. This summary is not a complete description of all provisions of the 2016 Plan and is qualified in its entirety by reference to the 2016 Plan, which will be filed as an exhibit to the registration statement of which this prospectus is part.

Plan administration

Our Board administers the 2016 Plan. Our Board has the discretionary authority to interpret the 2016 Plan and any award issued thereunder, to determine eligibility for and grant awards, to determine and modify the terms and conditions of any award, to accelerate the exercisability or vesting of all or any portion of an award, and to prescribe rules, guidelines and practices for administration of the 2016 Plan and all awards, and otherwise make all determinations it deems advisable for administration of the 2016 Plan. Our Board may delegate any or all of its powers to a committee of the board comprised of not less than two directors. As used in this summary, the term “Administrator” refers to our Board and its authorized delegates, as applicable.

Eligibility

Our and our subsidiaries’ officers, employees, directors, consultants, and key persons are eligible to participate in the 2016 Plan. Eligibility for incentive stock options, or ISOs, is limited to our employees or employees of certain affiliates.

Transferability of awards

Except as determined by the Administrator, stock options are not transferable other than by will, or by the laws of descent and distribution. The transfer of shares subject to an award is subject to a number of requirements, including the provision of notice to the company and the company’s right to purchase any shares subject to a proposed transfer at the terms thereof.

Effect of a sale event

Upon the occurrence of a Sale Event, as defined below, the 2016 Plan and all outstanding stock options will terminate, and all unvested restricted stock and RSUs will be forfeited, unless there is a continuation, assumption or substitution of such awards by the surviving entity or its parent. The company also has the right, but not the obligation, to provide the holders of such cancelled or forfeited awards with a cash payment equal to the amount that could have been obtained upon the exercise or settlement of the vested portion of such awards. For purposes of the 2016 Plan, a “Sale Event” includes (i) the sale of all or substantially all of the assets of the company, (ii) 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 entity, and (iii) 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, but which does not include this offering.

Adjustment provisions

In the event of certain changes to the company's capital stock resulting from, among other events, a reorganization, recapitalization, reclassification, stock dividend, stock split, or reverse stock split, the Administrator will make an appropriate and proportionate adjustment to the 2016 Plan and outstanding awards thereunder, including to the maximum number of shares reserved for issuance under the 2016 Plan and the number and kind of shares or other securities subject to any then outstanding awards.

Amendments and termination

Our Board may, at any time, amend or discontinue the 2016 Plan, and the Administrator may, at any time, amend or cancel any outstanding award for the purpose of satisfying changes in law or for any other lawful purpose provided, however, that no such action may adversely affect rights under any outstanding award without the consent of the holder of the award.

2024 Equity Incentive Plan

In connection with this offering, we intend to adopt the CAMP4 Therapeutics Corporation 2024 Equity Incentive Plan, or the 2024 Plan, and, in connection with and following this offering, all equity-based awards will be granted under the 2024 Plan. The following summary describes the material terms of the 2024 Plan. This summary is not a complete description of all provisions of the 2024 Plan and is qualified in its entirety by reference to the 2024 Plan, which will be filed as an exhibit to the registration statement of which this prospectus is a part.

Purpose

The purpose of the 2024 Plan is to advance our interests by providing for the grant to our employees, directors and consultants of stock and stock-based awards.

Plan administration

The 2024 Plan will be administered by our compensation committee, except with respect to matters that are not delegated to our compensation committee by our Board. Our compensation committee (or our Board, as applicable) will have the discretionary authority to interpret the 2024 Plan and any awards granted under it, determine eligibility for and grant awards, determine the exercise price, base value from which appreciation is measured or purchase price, if any, applicable to any award, determine, modify, accelerate and waive the terms and conditions of any award, determine the form of settlement of any award, prescribe forms, rules and procedures relating to the 2024 Plan and awards and otherwise do all things necessary or desirable to carry out the purposes of the 2024 Plan or any award. Our compensation committee may delegate such of its duties, powers and responsibilities as it may determine to one or more of its members, members of our Board and, to the extent permitted by law, our officers, and may delegate to employees and other persons such ministerial tasks as it deems appropriate. As used in this summary, the term "Administrator" refers to our compensation committee and its authorized delegates, as applicable.

Eligibility

Our employees, directors, consultants and advisors are eligible to participate in the 2024 Plan. Eligibility for stock options intended to be incentive stock options, or ISOs, is limited to our employees or employees of certain affiliates. Eligibility for stock options, other than ISOs, and stock appreciation rights, or SARs, is limited to individuals who are providing direct services to us or certain affiliates on the date of grant of the award.

Authorized shares

Subject to adjustment as described below, the maximum number of shares of our common stock that may be delivered in satisfaction of awards under the 2024 Plan is shares, or the share pool. The share pool will

automatically increase on January 1 of each year from 2025 to 2035 by the lesser of (i) five percent of the number of shares of our common stock outstanding as of the close of business on the immediately preceding December 31 and (ii) the number of shares determined by our Board on or prior to such date for such year. Up to shares may be delivered in satisfaction of ISOs. The number of shares of our common stock delivered in satisfaction of awards under the 2024 Plan is determined (i) by excluding shares withheld by us in payment of the exercise price or purchase price of the award or in satisfaction of tax withholding requirements with respect to the award, (ii) by including only the number of shares delivered in settlement of a SAR that is settled in shares of our common stock, and (iii) by excluding any shares underlying awards settled in cash or that expire, become unexercisable, terminate or are forfeited to or repurchased by us without the delivery of shares of our common stock (or retention, in the case of restricted stock or unrestricted stock). The number of shares available for delivery under the 2024 Plan will not be increased by any shares that have been delivered under the 2024 Plan and are subsequently repurchased using proceeds directly attributable to stock option exercises.

Shares that may be delivered under the 2024 Plan may be authorized but unissued shares, treasury shares or previously issued shares acquired by us.

Types of awards

The 2024 Plan provides for the grant of stock options, SARs, restricted and unrestricted stock and stock units, performance awards and other awards that are convertible into or otherwise based on our common stock. Dividend equivalents may also be provided in connection with awards under the 2024 Plan.

- ***Stock options and SARs***. The Administrator may grant stock options, including ISOs, and SARs. A stock option is a right entitling the holder to acquire shares of our common stock upon payment of the applicable exercise price. A SAR is a right entitling the holder upon exercise to receive an amount (payable in cash or shares of equivalent value) equal to the excess of the fair market value of the shares subject to the right over the base value from which appreciation is measured. The exercise price per share of each stock option, and the base value of each SAR, granted under the 2024 Plan will be no less than 100% of the fair market value of a share on the date of grant (110% in the case of certain ISOs). Other than in connection with certain corporate transactions or changes to our capital structure, stock options and SARs granted under the 2024 Plan may not be repriced, amended, or substituted for with new stock options or SARs having a lower exercise price or base value, nor may any consideration be paid upon the cancellation of any stock options or SARs that have a per share exercise or base price greater than the fair market value of a share on the date of such cancellation, in each case, without shareholder approval. Each stock option and SAR will have a maximum term of not more than ten years from the date of grant (or five years, in the case of certain ISOs).
- ***Restricted and unrestricted stock and stock units***. The Administrator may grant awards of stock, stock units, restricted stock and restricted stock units. A stock unit is an unfunded and unsecured promise, denominated in shares, to deliver shares or cash measured by the value of shares in the future, and a restricted stock unit is a stock unit that is subject to the satisfaction of specified performance or other vesting conditions. Restricted stock are shares subject to restrictions requiring that they be forfeited, redelivered or offered for sale to us if specified performance or other vesting conditions are not satisfied.
- ***Performance awards***. The Administrator may grant performance awards, which are awards subject to the achievement of performance criteria.
- ***Other share-based awards***. The Administrator may grant other awards that are convertible into or otherwise based on shares of our common stock, subject to such terms and conditions as it determines.
- ***Substitute awards***. The Administrator may grant substitute awards in connection with certain corporate transactions, which may have terms and conditions that are different from the terms and conditions of the 2024 Plan.

Director limits

The aggregate value of all compensation granted or paid to any director with respect to any calendar year, including awards granted under the 2024 Plan and cash fees or other compensation paid by us to such director outside of the 2024 Plan for his or her services as a director during such calendar year (which, for the avoidance of doubt, will not include compensation granted or paid to a director for services other than as a director, including, without limitation, for services as a consultant or adviser to the company), is subject to a limit of $750,000 in the aggregate ($1,000,000 in the aggregate with respect to a director's first year of service on our Board).

Vesting; terms of awards

The Administrator determines the terms and conditions of all awards granted under the 2024 Plan, including the time or times an award vests or becomes exercisable, the terms and conditions on which an award remains exercisable, and the effect of termination of a participant's employment or service on an award. The Administrator may at any time accelerate the vesting or exercisability of an award (or any portion thereof).

Non-transferability of awards

Except as the Administrator may otherwise determine, awards may not be transferred other than by will or by the laws of descent and distribution.

Adjustments upon certain covered transactions

In the event of certain covered transactions (including the consummation of a consolidation, merger or similar transaction, the sale of all or substantially all of our assets or shares of our common stock, or our dissolution or liquidation), the Administrator may, with respect to outstanding awards, provide for (in each case, on such terms and subject to such conditions as it deems appropriate):

- The assumption, substitution or continuation of some or all awards (or any portion thereof) by the acquiror or surviving entity;
- The acceleration of exercisability or delivery of shares in respect of any award, in full or in part; and/or
- The cash payment in respect of some or all awards (or any portion thereof) equal to the difference between the fair market value of the shares subject to the award and its exercise or base price, if any.

Except as the Administrator may otherwise determine, each award will automatically terminate or be forfeited immediately upon the consummation of the covered transaction, other than awards that are substituted for, assumed, or that continue following the covered transaction.

Adjustments upon changes in capitalization

In the event of certain corporate transactions, including a stock dividend, stock split or combination of shares (including a reverse stock split), recapitalization or other change in our capital structure, the Administrator shall make appropriate adjustments to the maximum number of shares that may be delivered under the 2024 Plan, the number and kind of securities subject to, and, if applicable, the exercise or purchase prices (or base values) of outstanding awards, and any other provisions affected by such event.

Recovery of compensation

The Administrator may provide that any outstanding award, the proceeds of any award or shares acquired thereunder and any other amounts received in respect of any award or shares acquired thereunder will be subject to forfeiture and disgorgement to us, with interest and other related earnings, if the participant to whom the award was granted is not in compliance with any provision of the 2024 Plan or any award, any non-competition, non-solicitation, no-hire, non-disparagement, confidentiality, invention assignment or other restrictive covenant, or any Company policy that relates to trading on non-public information and permitted transactions with

respect to shares of our common stock or that provides for forfeiture, disgorgement or clawback, including, to the extent applicable, the Company's Policy for Recoupment of Incentive Compensation or as otherwise required by law.

Amendment and termination

The Administrator may at any time amend the 2024 Plan or any outstanding award and may at any time terminate the 2024 Plan as to future awards. However, except as expressly provided in the 2024 Plan, the Administrator may not alter the terms of an award so as to materially and adversely affect a participant's rights without the participant's consent (unless the Administrator expressly reserved the right to do so in the 2024 Plan or at the time the award was granted). Any amendments to the 2024 Plan will be conditioned on shareholder approval to the extent required by applicable law or stock exchange requirements.

2024 Employee stock purchase plan

In connection with this offering, we intend to adopt the CAMP4 Therapeutics Corporation 2024 Employee Stock Purchase Plan, or the ESPP. The following summary describes the material terms of the ESPP. This summary is not a complete description of all provisions of the ESPP and is qualified in its entirety by reference to the ESPP, which will be filed as an exhibit to the registration statement of which this prospectus is a part.

Purpose

The purpose of the ESPP is to enable eligible employees to use payroll deductions to purchase shares of our common stock, and thereby acquire an interest in us. The ESPP is intended to qualify as an "employee stock purchase plan" under Section 423 of the Code.

Plan administration

The ESPP will be administered by our compensation committee, which will have the discretionary authority to interpret the ESPP, determine eligibility under the ESPP, prescribe forms, rules and procedures relating to the ESPP, and otherwise do all things necessary or desirable to carry out the purposes of the ESPP. Our compensation committee may delegate such of its duties, powers and responsibilities as it may determine to one or more of its members, members of our Board and our officers and employees, in each case, to the extent permitted by law. As used in this summary, the term "Administrator" refers to our compensation committee and its authorized delegates, as applicable.

Shares subject to the ESPP

Subject to adjustment as described below, the aggregate number of shares of our common stock available for purchase pursuant to the exercise of options under the ESPP is shares, plus an automatic annual increase, as of January 1 of each year from 2025 to 2035, equal to the lesser of (i) one percent of the number of shares of our common stock outstanding as of the close of business on the immediately preceding December 31 and (ii) the number of shares determined by our Board on or prior to such date for such year (up to a maximum of shares). Shares to be delivered upon exercise of options under the ESPP may be authorized but unissued shares, treasury shares, or previously issued shares acquired by us. If any option granted under the ESPP expires or terminates for any reason without having been exercised in full or ceases for any reason to be exercisable in whole or in part, the unpurchased shares subject to such option will again be available for purchase under the ESPP.

Eligibility

Participation in the ESPP generally will be limited to our employees and employees of our subsidiaries who satisfy the requirements for eligibility as set forth in the ESPP. The Administrator may establish additional or other eligibility requirements, or change the requirements described in this paragraph, to the extent consistent with Section 423 of the Code. Any employee who owns (or is deemed under statutory attribution rules to own)

shares possessing five percent or more of the total combined voting power or value of all classes of shares of us or our parent or subsidiaries, if any, will not be eligible to participate in the ESPP.

General terms of participation

The ESPP allows eligible employees to purchase shares of our common stock during specified offering periods. Unless otherwise determined by the Administrator, offering periods under the ESPP will be six months in duration and commence on the first business day of January and July of each year. During each offering period, eligible employees will be granted an option to purchase shares of our common stock on the last business day of the offering period. A participant may purchase a maximum of shares with respect to any offering period (or such lesser number as the Administrator may prescribe). No participant will be granted an option under the ESPP that permits the participant's right to purchase shares of our common stock under the ESPP and under all other employee stock purchase plans of us or our parent or subsidiaries, if any, to accrue at a rate that exceeds $25,000 in fair market value (or such other maximum as may be prescribed by the Code) for each calendar year during which any option granted to the participant is outstanding at any time, determined in accordance with Section 423 of the Code.

The purchase price of each share issued pursuant to the exercise of an option under the ESPP on an exercise date will be 85% (or such greater percentage as specified by the Administrator) of the lesser of: (i) the fair market value of a share of our common stock on the date the option is granted, which will be the first day of the offering period; and (ii) the fair market value of a share of our common stock on the exercise date, which will be the last business day of the offering period.

The Administrator has the discretion to change the commencement and exercise dates of offering periods, the purchase price, the maximum number of shares that may be purchased with respect to any offering period, the duration of any offering periods and other terms of the ESPP, in each case, without shareholder approval, except as required by law.

Participants in the ESPP will pay for shares purchased under the ESPP through payroll deductions. Participants may elect to authorize payroll deductions between one and fifteen percent of the participant's eligible compensation each payroll period.

Adjustments upon certain covered transactions

In the event of a (i) sale of all or substantially all of our then-outstanding common stock or a sale of all or substantially all of our assets, or (ii) merger or similar transaction in which we are not the surviving corporation or which results in the acquisition of us by another person, the Administrator may provide that each outstanding option will be assumed or substituted for or will be cancelled and the balances of participants' accounts returned, or that the option period will end before the date of the proposed corporate transaction.

Adjustments upon changes in capitalization

In the event of a stock dividend, stock split or combination of shares (including a reverse stock split), recapitalization, or other change in our capital structure that constitutes an equity restructuring, the Administrator will make appropriate adjustments to the aggregate number and type of shares available for purchase under the ESPP, the number and type of shares granted under any outstanding options, the maximum number and type of shares purchasable under any outstanding option and/or the purchase price per share under any outstanding option.

Amendment and termination

The Administrator has discretion to amend the ESPP to any extent and in any manner it may deem advisable, provided that any amendment that would be treated as the adoption of a new plan for purposes of Section 423 of the Code will require shareholder approval. The Administrator may suspend or terminate the ESPP at any time.

Emerging growth company status

We are an "emerging growth company," as defined in the JOBS Act. As an emerging growth company we will be exempt from certain requirements related to the disclosure of executive compensation, including the requirements to hold a nonbinding advisory vote on executive compensation and to provide information relating to the ratio of total compensation of our chief executive officer to the median of the annual total compensation of all of our employees, each as required by the Investor Protection and Securities Reform Act of 2010, which is part of the Dodd-Frank Wall Street Reform and Consumer Protection Act.

Clawback policy

Prior to the completion of this offering, our Board intends to adopt the Company's Policy for Recoupment of Incentive Compensation, or Clawback Policy, which is designed to comply with Section 10D-1 of the Exchange Act and the applicable Nasdaq Listing Rules. The Clawback Policy is to be effective upon the completion of this offering. The Clawback Policy requires us to recoup incentive-based compensation received by each current or former officer of the Company subject to Section 16 of the Exchange Act (each a "covered officer"), including each named executive officer, if the Company is required to prepare an accounting restatement due to its material noncompliance with any financial reporting requirement under the securities laws. The Clawback Policy generally applies to all cash-based or equity-based incentive compensation, bonus and/or awards that a covered officer receives that is or was based, wholly or in part, upon the attainment of any financial reporting measure during the three completed fiscal years occurring immediately prior to the date that the Company is required to prepare a restatement. However, the Clawback Policy does not apply to compensation, bonus and/or award that was received on or before the date our common stock is first listed.

Limitations on liability and indemnification

Our Restated Charter, which will become effective immediately prior to the completion of this offering, will contain provisions that limit the liability of our current and former directors and officers for monetary damages to the fullest extent permitted by Delaware law. Delaware law provides that directors and officers of a corporation will not be personally liable for monetary damages for any breach of fiduciary duties as directors or officers, except liability for:

- any breach of the director's or officer's duty of loyalty to the corporation or its stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- as a director, unlawful payments of dividends or unlawful stock repurchases or redemptions;
- as an officer, derivative claims brought on behalf of the corporation by a stockholder; or
- any transaction from which the director or officer derived an improper personal benefit.

Such limitation of liability does not apply to liabilities arising under federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission.

Our Restated Charter will authorize us to indemnify our directors, officers, employees and other agents to the fullest extent permitted by Delaware law. Our Restated Bylaws will provide that we are required to indemnify our directors and officers to the fullest extent permitted by Delaware law and may indemnify our other employees and agents. Our Restated Bylaws will also provide that, on satisfaction of certain conditions, we will advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and 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 that capacity regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by the Board. With certain exceptions, these agreements provide for indemnification for related expenses including attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding.

We believe that these Restated Charter and Bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain customary directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our Restated Charter and Restated Bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for directors, executive officers, or persons controlling us, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Rule 10b5-1 plans

Our directors, officers and key employees may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1 plan, a broker executes trades under parameters established by the director or officer when entering into the plan, without further direction from them. The director or officer may amend a Rule 10b5-1 plan in some circumstances and may terminate a plan at any time. Our directors and executive officers may also buy or sell additional shares outside of a Rule 10b5-1 plan when they do not possess of material nonpublic information, subject to compliance with the terms of our insider trading policy.

Certain relationships and related party transactions

The following is a description of transactions since January 1, 2021 to which we have been a participant in which the amount involved exceeded or will exceed the lesser of (i) $120,000 or (ii) one percent of the average of our total assets for the last two completed fiscal years, and in which any of our directors, executive officers or holders of five percent or more of any class of our capital stock, or any members of their immediately family or affiliated entities, had or will have a direct or indirect material interest, other than compensation arrangements that are described under “Management—Non-Employee director compensation” and “Executive compensation.”

Agreements and transactions with stockholders

Series A prime convertible preferred stock financing

In March 2021, we entered into a preferred stock purchase agreement with certain investors, including certain members of our board of directors, beneficial owners of greater than 5% of our capital stock and affiliates of members of our board of directors, pursuant to which we issued and sold an aggregate of 212,264,148 shares of our Series A Prime convertible preferred stock at a purchase price of $0.2120 per share for aggregate gross proceeds of $45.0 million. Each share of our Series A Prime convertible preferred stock will convert into one share of common stock upon the closing of this offering.

In March 2021, in connection with the sale of our Series A Prime convertible preferred stock, we effected a recapitalization, or the Recapitalization, pursuant to which (i) all outstanding Series Seed convertible preferred stock were converted into shares of Series A Prime convertible preferred stock at a rate of 1.51121 shares of Series A Prime convertible preferred stock for every one share of Series Seed convertible preferred stock, and (ii) all outstanding shares of Series A convertible preferred stock were converted into shares of Series A Prime convertible preferred stock at a rate of 1.51996 shares of Series A Prime convertible preferred stock for every one share of Series A convertible preferred stock. In May 2021, we effected a reverse stock split, or the 2021 Reverse Split, pursuant to which each 4.7163 shares of our outstanding common stock and Series A Prime convertible preferred stock became one share of common stock and Series A Prime convertible preferred stock, respectively.

The table below sets forth the aggregate number of shares of Series A Prime convertible preferred stock issued to our related parties in this financing, after giving effect to the 2021 Reverse Split:

Name	Series A prime convertible preferred stock (#)	Aggregate purchase price ($)
Entities affiliated with Polaris Partners(1)	8,840,737	$ 8,839,462.55
AH Bio Fund I, L.P., as nominee(2)	8,837,550	$ 8,836,274.22
Steven Holtzman(3)	110,014	$ 23,322.97
Richard Young, PhD(3)	110,014	$ 23,322.97
Leonard Zon(3)	110,014	$ 23,322.97

(1) Consists of (i) 8,262,703 shares of Series A Prime convertible preferred stock held by Polaris Partners VII, L.P., or Polaris Partners VII, and (ii) 578,034 shares of Series A Prime convertible preferred stock held by Polaris Entrepreneurs’ Fund VII, L.P., or Polaris Entrepreneurs’ VII and, together with Polaris Partners VII, the Polaris Funds. Amir Nashat, ScD, a member of our board of directors, is a managing member of Polaris Partners GP VII, L.L.C., or Polaris GP VII, the general partner of the Polaris Funds. Entities affiliated with Polaris Partners collectively hold more than 5% of our voting securities.

(2) Jorge Conde, a member of our board of directors, is a General Partner on the Bio + Health team of Andreessen Horowitz, a venture capital firm. AH Bio Fund I, L.P., or AH Bio Fund, is an investment vehicle of Andreessen Horowitz that holds more than 5% of our voting securities.

(3) Each of Mr. Holtzman, Dr. Young and Dr. Zon served as a member of our board of directors at the time of the Series A Prime convertible preferred stock financing.

Series B convertible preferred stock financing

In June 2022, we entered into a preferred stock purchase agreement with certain investors, including beneficial owners of greater than 5% of our capital stock, affiliates of members of our board of directors and certain of our

executive officers, pursuant to which we issued and sold to such investors an aggregate of 68,258,635 shares of our Series B convertible preferred stock at a purchase price of $1.4724 per share for aggregate gross proceeds of $100.5 million. Each share of our Series B convertible preferred stock will convert into one share of common stock upon the closing of this offering.

The table below sets forth the aggregate number of shares of Series B convertible preferred stock issued to our related parties in this financing:

Name	Series B convertible preferred stock (#)	Aggregate purchase price ($)
Entities affiliated with Enavate Sciences(1)	27,166,530	$ 39,999,998.78
Entities affiliated with 5AM Ventures(2)	7,640,586	$ 11,249,998.83
Northpond Ventures, LP(3)	5,287,303	$ 7,785,024.94
Entities affiliated with Polaris Partners(4)	4,244,770	$ 6,249,999.36
AH Bio Fund I, L.P., as nominee(5)	679,163	$ 999,999.61
Kaiser Permanente Group Trust and Kaiser Foundation Hospitals(6)	10,187,448	$ 14,999,998.44
State of Michigan Retirement Systems(7)	10,187,449	$ 14,999,999.91
Josh Mandel-Brehm	6,791	$ 9,999.07

(1) Everest Aggregator, LP, or Everest Aggregator, is limited partnership affiliated with Enavate Sciences. Enavate Sciences GP, LLC, or Enavate GP, is the general partner of Everest Aggregator. James Boylan, a member of our board of directors, is a manager of Enavate GP and disclaims beneficial ownership of the shares held by Everest Aggregator. Everest Aggregator holds more than 5% of our voting securities.

(2) Consists of (i) 4,244,770 shares of Series B convertible preferred stock held by 5AM Ventures VI, L.P., or 5AM Ventures VI, and (ii) 3,395,816 shares of Series B convertible preferred stock held by 5AM Opportunities II, L.P., or 5AM Opportunities, and, together with 5AM Ventures VI, 5AM Ventures. Andrew J. Schwab, a member of our board of directors, is a Managing Member of 5AM Partners VI, LLC, the General Partner of 5AM Ventures VI and a Managing Member of 5AM Opportunities II (GP), LLC, the General Partner of 5AM Opportunities, and as a result, may be deemed to share voting and investment power with respect to the shares held by 5AM Ventures VI and 5AM Opportunities. Entities affiliated with 5AM Ventures collectively hold more than 5% of our voting securities.

(3) Ingo Chakravarty, a member of our board of directors, is an Operating Partner of Northpond Ventures LLC, an affiliate of Northpond Ventures, LP. Funds affiliated with Northpond Ventures, LLC beneficially own, in the aggregate, more than 5% of our voting securities.

(4) Consists of (i) 3,967,234 shares of Series B convertible preferred stock held by Polaris Partners VII and (ii) 277,536 shares of Series B convertible preferred stock held by Polaris Entrepreneurs' VII. Amir Nashat, ScD, a member of our board of directors, is a managing member of Polaris GP VII, the general partner of the Polaris Funds. Entities affiliated with Polaris Partners collectively hold more than 5% of our voting securities.

(5) Jorge Conde, a member of our board of directors, is a General Partner on the Bio + Health team of Andreessen Horowitz, a venture capital firm. AH Bio Fund is an investment vehicle of Andreessen Horowitz that holds more than 5% of our voting securities.

(6) Consists of (i) 6,791,632 shares of Series B convertible preferred stock held by Kaiser Permanente Group Trust and (ii) 3,395,816 shares of Series B convertible preferred stock held by Kaiser Foundation Hospitals. Kaiser Permanente Group Trust and Kaiser Foundation Hospitals together hold more than 5% of our voting securities.

(7) SMRS-TOPE LLC, on behalf of the State of Michigan Retirement Systems, holds more than 5% of our voting securities prior to this offering.

Investors' rights, voting and right of first refusal agreements

In connection with our preferred stock financings, we entered into an amended and restated investors' rights agreement, the Voting Agreement and an amended and restated right of first refusal and co-sale agreement, containing registration rights, information rights, rights of first offer, voting rights and rights of first refusal, among other things, with certain holders of our capital stock, including Everest Aggregator, Kaiser Permanente Group Trust and Kaiser Foundation Hospitals, SMRS-TOPE LLC, entities affiliated with 5AM Ventures, AH Bio Fund, the Polaris Funds and Northpond Ventures. Josh Mandel-Brehm, our Chief Executive Officer, is a party to certain of these agreements in his capacity as a stockholder.

The foregoing stockholder agreements will terminate upon the closing of this offering, except for the registration rights granted under our amended and restated investors' rights agreement, as more fully described in the section titled "Description of capital stock—Registration rights."

Director affiliations

Certain of our directors are affiliated with and, prior to the completion of this offering, have served on our board of directors as representatives of entities which beneficially own or owned 5% or more of our voting securities, as indicated in the table below:

Director	Affiliated Stockholder
James Boylan	Entities affiliated with Enavate Sciences
Jorge Conde	Entities affiliated with AH Bio Fund I, L.P.
Ingo Chakravarty	Entities affiliated with Northpond Ventures, LP
Amir Nashat, ScD	Entities affiliated with Polaris Partners
Andrew J. Schwab	Entities affiliated with 5AM Ventures

Each of the directors identified above was elected pursuant to the board composition provisions of the Voting Agreement. The Voting Agreement, including the board composition provisions therein, will terminate upon the completion of this offering, after which there will be no further contractual obligations regarding the election of our directors.

Loans to related persons

In August 2021, we entered into a secured promissory note, or the Mandel-Brehm Promissory Note, with Josh Mandel-Brehm, our Chief Executive Officer, pursuant to which we loaned to Mr. Mandel-Brehm $565,999.96 to fund the payment associated with the early exercise of options held by Mr. Mandel-Brehm for 3,000,233 shares of Common Stock. The Mandel-Brehm Promissory Note was secured by a pledge to us of Mr. Mandel-Brehm's equity interests in the 3,000,233 shares of Common Stock issued upon the early exercise of Mr. Mandel-Brehm's stock options. The Mandel-Brehm Promissory Note bears interest on the unpaid principal balance at the rate per annum equal to the long-term Applicable Federal Rate as defined in Section 1274(d) of the Internal Revenue Code of 1986, as amended, or the Code, in effect on the first day of each calendar year, which was initially 1.35%. The Mandel-Brehm Promissory Note is due and payable by the earliest to occur of (i) August 9, 2026, (ii) the date that we first become subject to the reporting requirements of the Exchange Act with respect to any class of our securities, or (iii) an event of default, as defined in the Mandel-Brehm Promissory Note. The Mandel-Brehm Promissory Note, including all principal and interest owed to the Company, was forgiven immediately prior to the filing of this registration statement with the SEC. Upon the forgiveness of the Mandel-Brehm Promissory Note, the 3,000,233 shares of Common Stock are deemed outstanding for accounting purposes.

In August 2021, we entered into a secured promissory note, or the Gold Promissory Note, with Kelly Gold, our Chief Financial Officer, pursuant to which we loaned to Ms. Gold $127,999.82 to fund the payment associated with the early exercise of options held by Ms. Gold for 678,497 shares of Common Stock. The Gold Promissory Note was secured by a pledge to us of Ms. Gold's equity interests in the 678,497 shares of Common Stock issued upon the early exercise of Ms. Gold's stock options. The Gold Promissory Note bears interest on the unpaid principal balance at the rate per annum equal to the long-term Applicable Federal Rate, as defined in the Code, in effect on the first day of each calendar year, which was initially 1.35%. The Gold Promissory Note is due and payable by the earliest to occur of (i) August 9, 2026, (ii) the date that we first become subject to the reporting requirements of the Exchange Act with respect to any class of our securities, or (iii) an event of default, as defined in the Gold Promissory Note. The Gold Promissory Note, including all principal and interest owed to the Company, was forgiven immediately prior to the filing of this registration statement with the SEC. Upon the forgiveness of the Gold Promissory Note, the 678,497 shares of Common Stock are deemed outstanding for accounting purposes.

In August 2021, we entered into a secured promissory note, or the Bumcrot Promissory Note, with David Bumcrot, our Chief Scientific Officer, pursuant to which we loaned to Mr. Bumcrot $127,999.82 to fund the payment associated with the early exercise of options held by Mr. Bumcrot for 678,497 shares of Common Stock. The Bumcrot Promissory Note was secured by a pledge to us of Mr. Bumcrot's equity interests in the 678,497 shares of Common Stock issued upon the early exercise of Mr. Bumcrot's stock options. The Bumcrot Promissory Note bears interest on the unpaid principal balance at the rate per annum equal to the long-term Applicable Federal Rate, as defined in the Code, in effect on the first day of each calendar year, which was initially 1.35%. The Bumcrot Promissory Note is due and payable by the earliest to occur of (i) August 9, 2026, (ii) the date that we first become subject to the reporting requirements of the Exchange Act with respect to any class of our securities, or (iii) an event of default, as defined in the Bumcrot Promissory Note. The Bumcrot Promissory Note, including all

principal and interest owed to the Company, was forgiven immediately prior to the filing of this registration statement with the SEC. Upon the forgiveness of the Bumcrot Promissory Note, the 678,497 shares of Common Stock are deemed outstanding for accounting purposes.

Employment arrangements

We have entered into employment agreements or offer letter agreements with certain of our executive officers. For more information regarding such employment agreements, see “Executive compensation—Agreements with our named executive officers.”

Indemnification agreements

Our amended and restated certificate of incorporation that will be in effect upon completion of this offering will contain provisions limiting the liability of directors and executive officers, and our amended and restated bylaws will provide that we will indemnify each of our directors and executive officers to the fullest extent permitted under Delaware law. Our amended and restated certificate of incorporation and amended and restated bylaws will also provide our board of directors with discretion to indemnify our employees and other agents when determined appropriate by the board.

In addition, we have entered into or intend to enter into indemnification agreements with each of our directors and executive officers. For more information regarding these agreements, see “Executive compensation—Limitations on liability and indemnification.”

Related person transaction policy

Our board of directors intends to adopt a written related person transaction policy, to be effective upon the effectiveness of the registration statement of which this prospectus forms a part, setting forth the policies and procedures for the review and approval or ratification of related person transactions. This policy will cover, with certain exceptions set forth in Item 404 of Regulation S-K under the Securities Act, any transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we were or are to be a participant, where the amount involved exceeds in any fiscal year the lesser of (i) $120,000 or (ii) one percent of the average of our total assets at year end for the last two completed fiscal years and a related person had, has or will have a direct or indirect material interest, including, without limitation, purchases of goods or services by or from the related person or entities in which the related person has a material interest, indebtedness, guarantees of indebtedness and employment by us of a related person. In reviewing and approving any such transactions, our audit committee is tasked with considering all relevant facts and circumstances, including, but not limited to, whether the transaction is on terms comparable to those that could be obtained in an arm’s length transaction and the extent of the related person’s interest in the transaction. All of the transactions described in this section occurred prior to the adoption of this policy.

Principal stockholders

The following table sets forth certain information regarding beneficial ownership of our capital stock as of June 30, 2024 by:

- each person, or group of affiliated persons, known by us to beneficially own more than 5% of our common stock;
- each of our directors;
- our named executive officer; and
- all of our current executive officers and directors as a group.

We have determined beneficial ownership in accordance with the rules of the SEC. Under these rules, beneficial ownership includes any shares of common stock as to which the individual or entity has sole or shared voting power or investment power. Percentage ownership of our common stock before this offering is based on 142,169,617 shares of common stock outstanding as of June 30, 2024, after giving effect to the automatic conversion of all of our convertible preferred stock into shares of our common stock and the repayments of the loans to related persons (which are legally-issued common stock shares treated as stock options for accounting purposes and thus, not included in outstanding common stock at June 30, 2024) immediately prior to the closing of this offering, as if such conversion had occurred as of June 30, 2024, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus. Percentage ownership of our common stock after this offering is based on shares of our common stock outstanding as of June 30, 2024, after giving effect to the transactions described above and our issuance of shares of our common stock in this offering. In computing the number of shares beneficially owned by an individual or entity and the percentage ownership of that person, shares of common stock subject to options held by such person that are currently exercisable or will become exercisable within 60 days of , 2024 are considered outstanding, although these shares are not considered outstanding for purposes of computing the percentage ownership of any other person. Unless noted otherwise, the address of all listed stockholders is c/o One Kendall Square, Building 1400 West, 3rd Floor, Cambridge, Massachusetts 02139.

Except as indicated by the footnotes below, we believe, based on information furnished to us, that each of the stockholders listed has sole voting and investment power with respect to the shares beneficially owned by the stockholder unless noted otherwise, subject to community property laws where applicable.

Name of beneficial owner	Number of shares beneficially owned	Percentage of shares beneficially owned	
		Before offering	After offering
Greater than 5% stockholders			
Entities affiliated with Enavate Sciences(1)	27,166,530	19.1%	%
Entities affiliated with 5AM Ventures(2)	22,642,752	15.9%	%
Entities affiliated with Polaris Partners(3)	19,246,074	13.5%	%
Entities affiliated with Northpond Ventures, LLC(4)	16,538,927	11.6%	%
Entities affiliated with AH Bio Fund I, L.P.(5)	15,680,475	11.0%	%
SMRS-TOPE LLC(6)	10,187,449	7.2%	%
Kaiser Permanente Group Trust and Kaiser Foundation Hospitals(7)	10,187,448	7.2%	%
Named executive officers and directors			
Josh Mandel-Brehm(8)	6,094,886	4.2%	%
David Bumcrot, PhD(9)	1,435,384	1.0%	%
Kelly Gold(10)	1,463,001	1.0%	%
Steven Holtzman(11)	1,730,305	1.2%	%

Name of beneficial owner	Number of shares beneficially owned	Percentage of shares beneficially owned	
		Before offering	After offering
James Boylan	—	—	%
Jorge Conde	—	—	%
Ingo Chakravarty	—	—	%
Michael Higgins(12)	422,804	*	%
Amir Nashat, ScD(3)	19,246,074	13.5%	%
Paula Ragan, PhD(13)	311,490	*	%
Andrew J. Schwab(2)	22,642,752	15.9%	%
Ravi I. Thadhani, MD, MPH(14)	275,396	*	%
Richard Young, PhD(15)	2,530,045	1.8%	%
All current executive officers and directors as a group (13 persons)	14,263,311	9.6%	%

* Represents beneficial ownership of less than one percent.

(1) Consists of 27,166,530 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Everest Aggregator, LP, or Everest Aggregator. Everest Aggregator is a limited partnership affiliated with Enavate Sciences. Enavate Sciences GP, LLC, or Enavate GP, is the general partner of Everest Aggregator. Voting, investment and dispositive power with respect to the shares held by Everest Aggregator is held by the managers of Enavate GP collectively, including James Boylan, a member of our board of directors. Mr. Boylan disclaims beneficial ownership of the shares held by Everest Aggregator. The principal business address of Everest Aggregator is 106 West 56th Street, New York, New York 10019.

(2) Consists of (i) 15,002,166 shares of common stock issuable upon conversion of Series A Prime convertible preferred stock held by 5AM Ventures VI, L.P., or 5AM Ventures VI, (ii) 4,244,700 shares of common stock issuable upon conversion of Series B convertible preferred stock held by 5AM Ventures VI, and (iii) 3,395,816 shares of common stock issuable upon conversion of Series B convertible preferred stock held by 5AM Opportunities II, L.P., or 5AM Opportunities, and, together with 5AM Ventures VI, 5AM Ventures. 5AM Partners VI, LLC, or Partners VI, is the sole general partner of 5AM Ventures VI and 5AM Opportunities II (GP), LLC, or Opportunities II GP, is the sole general partner of 5AM Opportunities. Dr. Kush M. Parmar and Andrew J. Schwab are the managing members of each Partners VI and Opportunities II GP and may be deemed to have shared voting and investment power over the securities beneficially owned by 5AM Ventures VI and 5AM Opportunities. Each of Partners VI, Opportunities II GP, Dr. Parmar and Mr. Schwab disclaims beneficial ownership of such securities except to the extent of its or his respective pecuniary interest therein. The principal business address of 5AM Ventures is 4 Embarcadero Center, Suite 3110, San Francisco, California 94111.

(3) Consists of (i) 15,001,304 shares of common stock issuable upon the conversion of Series A Prime convertible preferred stock held by the Polaris Funds and (ii) 4,244,770 shares of common stock issuable upon the conversion of Series B convertible preferred stock held by the Polaris Funds. Polaris GP VII is the general partner of each of the Polaris Funds and may be deemed to have sole voting and dispositive power with respect to the shares held by the Polaris Funds. Amir Nashat, ScD, a member of our board of directors, David Barrett, Brian Chee and Bryce Youngren (collectively, the Polaris GP VII Managing Members) are the managing members of Polaris GP VII. Each of the Polaris GP VII Managing Members, in their capacities with respect to Polaris GP VII, may be deemed to have shared voting and dispositive power with respect to the shares held by the Polaris Funds. The principal business address of Polaris Partners is One Marina Drive, 8th Floor, Boston, Massachusetts 02210.

(4) Consists of (i) 11,251,624 shares of common stock issuable upon conversion of Series A Prime convertible preferred stock held by Northpond Ventures II, LP, or Northpond Fund II, and (ii) 5,287,303 shares of common stock issuable upon conversion of Series B convertible preferred stock held by Northpond Ventures, LP, or Northpond Fund I. The general partner of Northpond Fund II is Northpond Ventures II GP, LLC, or Northpond II GP, and the general partner of Northpond Fund I is Northpond Ventures GP, LLC, or Northpond GP. Voting and dispositive decisions with respect to the securities held by Northpond Fund I and Northpond Fund II are made by Michael Rubin, the managing member of Northpond GP and Northpond II GP. Ingo Chakravarty, a member of our board of directors, is an Operating Partner of Northpond Ventures, LLC. Mr. Chakravarty has no voting or dispositive power with respect to the securities held by Northpond Fund I and Northpond Fund II.

(5) Consists of (i) 15,001,312 shares of common stock issuable upon the conversion of Series A Prime convertible preferred stock and (ii) 679,163 shares of common stock issuable upon conversion of Series B convertible preferred stock held of record by AH Bio Fund I, L.P., for itself and as nominee for AH Bio Fund I-B, L.P., or, collectively, the AH Bio Fund I Entities. AH Equity Partners Bio I, L.L.C., or AH Bio I EP, is the general partner of the AH Bio Fund I Entities. The managing members of AH Bio I EP are Marc Andreessen and Ben Horowitz. AH Bio I EP has sole voting and dispositive power with regard to the shares held by the AH Bio Fund I Entities. The address for each of these entities and individuals is 2865 Sand Hill Road, Suite 101, Menlo Park, CA 94025.

(6) Consists of 10,187,449 shares of common stock common stock issuable upon the conversion Series B convertible preferred stock held by entities affiliated with SMRS-TOPE LLC. The principal business address of SMRS-TOPE LLC is c/o HarbourVest Partners, L.P., One Financial Center, Boston, Massachusetts 02111.

(7) Consists of 10,187,448 shares of common stock issuable upon the conversion of Series B convertible preferred stock held by entities affiliated with Kaiser Permanente Group Trust. The principal business address of Kaiser Permanente Group Trust is One Kaiser Plaza—Ordway Building, Oakland, California 94612.

(8) Consists of (i) 3,047,939 shares of common stock, (ii) 6,791 shares of common stock issuable upon the conversion of Series B convertible preferred stock and (iii) 3,040,156 shares of common stock underlying outstanding stock options exercisable within 60 days of June 30, 2024.

(9) Consists of (i) 692,490 shares of common stock and (ii) 742,894 shares of common stock underlying outstanding stock options exercisable within 60 days of June 30, 2024.

(10) Consists of (i) 693,338 shares of common stock and (ii) 769,663 shares of common stock underlying outstanding stock options exercisable within 60 days of June 30, 2024.

(11) Consists of (i) 1,221,944 shares of common stock and (ii) 508,361 shares of common stock underlying outstanding stock options exercisable within 60 days of June 30, 2024.

(12) Consists of (i) 322,333 shares of common stock and (ii) 100,471 shares of common stock underlying outstanding stock options exercisable within 60 days of June 30, 2024.

(13) Consists of (i) 226,920 shares of common stock and (ii) 84,570 shares of common stock underlying outstanding stock options exercisable within 60 days of June 30, 2024.

(14) Consists of (i) 190,827 shares of common stock and (ii) 84,569 shares of common stock underlying outstanding stock options exercisable within 60 days of June 30, 2024.

(15) Consists of (i) 1,736,888 shares of common stock and (ii) 793,157 shares of common stock underlying outstanding stock options exercisable within 60 days of June 30, 2024.

Description of capital stock

The following description of our capital stock and certain provisions of our Restated Charter and Restated Bylaws as they will be in effect immediately prior to the completion of this offering are summaries and are qualified by reference to our Restated Charter and Restated Bylaws. Copies of these documents are filed as exhibits to the registration statement of which this prospectus is a part.

General

Upon the completion of this offering, our Restated Charter will authorize us to issue up to shares of common stock, $0.0001 par value per share, and shares of preferred stock, $0.0001 par value per share, all of which shares of preferred stock will be undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time.

As of June 30, 2024, we had outstanding 5,506,768 shares of common stock held by 60 stockholders of record. As of June 30, 2024, after giving effect to the automatic conversion of all of the outstanding shares of our convertible preferred stock, including 62,389,791 shares of our Series A Prime convertible preferred stock and 68,258,635 shares of our Series B convertible preferred stock into 130,648,426 shares of common stock, based on an 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 upon completion of this offering, there would have been shares of common stock issued and outstanding (including shares of unvested restricted common stock), held by stockholders of record, and no shares of preferred stock outstanding.

Common stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. An election of directors by our stockholders shall be determined by a majority of the votes cast by the stockholders entitled to vote on the election, except in the case of a contested election, in which case the election shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of any series of preferred stock that we may designate and issue in the future.

In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately our net assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock. Holders of common stock have no preemptive, subscription, redemption or conversion rights. Our outstanding shares of common stock are, and the shares offered by us in this offering will be, when issued and paid for, validly issued, fully paid and nonassessable. The rights, preferences and privileges of holders of common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of preferred stock that we may designate and issue in the future.

Options and restricted shares

As of June 30, 2024, there were options to purchase 28,044,498 shares of our common stock outstanding, of which 14,801,318 were vested and exercisable as of that date. For additional information regarding the terms of our 2016 Plan, see the sections titled “Executive and director compensation—Equity incentive plans.”

Preferred stock

As of June 30, 2024, there were 130,648,426 shares of our preferred stock outstanding, consisting of 62,389,791 shares of our Series A Prime convertible preferred stock and 68,258,635 shares of our Series B convertible preferred stock. All currently outstanding shares of convertible preferred stock will be converted into an aggregate of 130,648,426 shares of common stock immediately prior to the closing of this offering.

Under the terms of our Restated Charter that will be in effect immediately prior to the completion of this offering, our board of directors is authorized to direct us to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from seeking to acquire, a majority of our outstanding voting stock. Upon the completion of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

We have no present plans to issue any shares of preferred stock following the completion of this offering.

Warrants

As of June 30, 2024, there were outstanding immediately exercisable warrants to purchase up to 1,602 shares of our Series A Prime convertible preferred stock at an exercise price of $0.9998556 per share. Upon completion of this offering, the warrant to purchase shares of Series A Prime convertible preferred stock will become automatically exercisable for the purchase of an aggregate of 1,602 shares of our common stock, which equals the number of shares of our common stock into which 1,602 shares of our Series A Prime convertible preferred stock would have been automatically converted in connection with this offering had such shares been outstanding prior to the completion of this offering, at an exercise price of $0.9998556 per share.

Registration rights

Upon the completion of this offering, holders of shares of our common stock, which includes all of the shares of common stock issuable upon the automatic conversion of the convertible preferred stock outstanding immediately prior to the closing of this offering, will be entitled to the following rights with respect to the registration of such shares for public resale under the Securities Act, pursuant to an investors' rights agreement by and among us and certain investors. These shares are collectively referred to herein as "registrable securities." The registration of shares of common stock as a result of the following rights being exercised would enable holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective.

Demand registration rights

At any time beginning one hundred eighty (180) days following the effective date of the registration statement of which this prospectus is a part, the holders of a majority of registrable securities then outstanding have the right to demand that we file a registration statement covering at least forty percent (40%) of the registrable securities then outstanding (or a lesser percent if the anticipated aggregate offering price, net of selling expenses, would exceed $10 million). These registration rights are subject to specified conditions and limitations, including the right of the underwriters, if any, to limit the number of shares included in any such registration under specified circumstances. Upon such a request, we are required to effect the registration as soon as practicable, but in any event no later than 60 days after the receipt of such request; provided, however, that we will not be required to effect such a registration if, among other things, we have already effected two registrations for the holders of registrable securities in response to these demand registration rights. An aggregate of shares of common stock will be entitled to these demand registration rights.

Piggyback registration rights

If we propose to register any of our securities under the Securities Act either for our own account or for the account of other stockholders, the holders of registrable securities will each be entitled to notice of the registration

and will be entitled to include their shares of common stock in the registration statement. These piggyback registration rights are subject to specified conditions and limitations, including the right of the underwriters to limit the number of shares included in any such registration under specified circumstances. An aggregate of shares of common stock will be entitled to these piggyback registration rights.

Registration on Form S-3

At any time after we become eligible to file a registration statement on Form S-3, the holders of at least twenty percent (20%) of registrable securities then outstanding will be entitled to request to have such shares registered by us on a Form S-3 registration statement. These Form S-3 registration rights are subject to other specified conditions and limitations, including the condition that the anticipated aggregate offering price, net of certain selling expenses, is at least $3.0 million. Upon receipt of this request, the holders of registrable securities will each be entitled to participate in this registration. Upon such a request, we are required to effect the registration as soon as practicable, but in any event no later than 45 days after the receipt of such request; provided, however, that we will not be required to effect such a registration if, among other things, we have already effected two registrations on Form S-3 for the holders of registrable securities in response to these demand registration rights within the preceding 12 months. An aggregate of shares of common stock will be entitled to these Form S-3 registration rights.

Expenses of registration

We are required to pay all expenses, including fees and expenses of one counsel to represent the selling stockholders (up to $50,000 total), relating to any demand, piggyback or Form S-3 registration, other than underwriting discounts and commissions, stock transfer taxes and any additional fees of counsel for the selling stockholders, subject to specified conditions and limitations. We are not required to pay registration expenses if a demand registration request is withdrawn at the request of a majority of holders of registrable securities to be registered, unless holders of a majority of the registrable securities agree to forfeit their right to one demand registration.

The amended and restated investors' rights agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the applicable registration statement attributable to us, and the selling stockholders are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them, subject to certain limitations.

Termination of registration rights

The registration rights granted under the investors' rights agreement will terminate with respect to any particular stockholder upon the earlier of (a) the closing of a deemed liquidation event, as defined in our certificate of incorporation, (b) the fifth anniversary of the closing of this offering and (c) with respect to each stockholder, at such time such stockholder is able to sell all of its shares pursuant to Rule 144 or another similar exemption under the Securities Act during a three-month period without registration.

Anti-takeover effects of our Restated Charter and Restated Bylaws

Section 203 of the Delaware General Corporation Law

Our Restated Charter and Restated Bylaws, which will be in effect prior to the consummation of this offering, will contain certain provisions that are intended to enhance the likelihood of continuity and stability in the composition of our board of directors but which may have the effect of delaying, deferring or preventing a future takeover or change in control of us unless such takeover or change in control is approved by our board of directors.

These provisions include:

Classified board. Our Restated Charter will provide that our board of directors will be divided into three classes of directors, with the classes as nearly equal in number as possible. As a result, approximately one-third of our

board of directors will be elected each year. The classification of directors will have the effect of making it more difficult for stockholders to change the composition of our board of directors. Our Restated Charter will also provide that, subject to any rights of holders of preferred stock to elect additional directors under specified circumstances, the number of directors will be fixed exclusively pursuant to a resolution adopted by our board of directors. Upon completion of this offering, we expect that our board of directors will have directors.

Action by written consent; special meetings of stockholders. Our Restated Charter will provide that stockholder action can be taken only at an annual or special meeting of stockholders and cannot be taken by written consent in lieu of a meeting. Our Restated Charter and the Restated Bylaws will also provide that, except as otherwise required by law, special meetings of the stockholders can only be called pursuant to a resolution adopted by a majority of our board of directors. Except as described above, stockholders will not be permitted to call a special meeting or to require our board of directors to call a special meeting.

Removal of directors. Our Restated Charter will provide that our directors may be removed only for cause by the affirmative vote of at least a majority of the voting power of our outstanding shares of capital stock, voting together as a single class. This requirement of a supermajority vote to remove directors could enable a minority of our stockholders to prevent a change in the composition of our board of directors.

Advance notice procedures. Our Restated Bylaws will establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors. Stockholders at an annual meeting will only be able to consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a stockholder who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given our Secretary timely written notice, in proper form, of the stockholder's intention to bring that business before the meeting. Although the Restated Bylaws will not give our board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting, the Restated Bylaws may have the effect of precluding the conduct of certain business at a meeting if the proper procedures are not followed or may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect its own slate of directors or otherwise attempting to obtain control of us.

Supermajority approval requirements. The DGCL generally provides that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless either a corporation's certificate of incorporation or bylaws requires a greater percentage. Our Restated Charter and Restated Bylaws will provide that the affirmative vote of holders of at least 75% of the total votes eligible to be cast in the election of directors will be required to amend, alter, change or repeal specified provisions. This requirement of a supermajority vote to approve amendments to our Restated Charter and Restated Bylaws could enable a minority of our stockholders to exercise veto power over any such amendments.

Authorized but unissued shares. Our authorized but unissued shares of common stock and preferred stock will be available for future issuance without stockholder approval. These additional shares may be utilized for a variety of corporate purposes, including future public offerings to raise additional capital, corporate acquisitions and employee benefit plans. The existence of authorized but unissued shares of common stock and preferred stock could render more difficult or discourage an attempt to obtain control of a majority of our common stock by means of a proxy contest, tender offer, merger or otherwise.

Exclusive forum. Our Restated Charter will provide that, subject to limited exceptions, the Court of Chancery of the State of Delaware (or, if, and only if, the Court of Chancery of the State of Delaware dismisses a Covered Claim (as defined in our Restated Charter) for lack of subject matter jurisdiction, any other state or federal court in the State of Delaware that does have subject matter jurisdiction) will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for Covered Claims. This provision would not apply to claims brought to enforce a duty or liability created by the Exchange Act.

Our Restated Charter will further provide that the federal district courts of the U.S. will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act. In addition, our Restated Charter will provide that any person or entity purchasing or otherwise acquiring any interest in the shares of capital stock of the company will be deemed to have notice of and consented to these choice-of-forum provisions and waived any argument relating to the inconvenience of the forums in connection with any Covered Claim.

The choice of forum provisions to be contained in our Restated Charter may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders, which may discourage lawsuits with respect to such claims, although our stockholders will not be deemed to have waived our compliance with federal securities laws and the rules and regulations thereunder. While the Delaware courts have determined that such choice of forum provisions are facially valid, it is possible that a court of law in another jurisdiction could rule that the choice of forum provisions to be contained in our Restated Charter are inapplicable or unenforceable if they are challenged in a proceeding or otherwise, which could cause us to incur additional costs associated with resolving such action in other jurisdictions. See the section titled "Risk factors—Risks related to this offering and our common stock—Our Restated Charter will designate the state or federal courts within the State of Delaware as the 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."

Section 203 of the DGCL

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. A "business combination" includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. An "interested stockholder" is a person who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation's voting stock.

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, the corporation's board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder; 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; or at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation 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.

A Delaware corporation may "opt out" of these provisions with an express provision in its original certificate of incorporation or an express provision in its certificate of incorporation or bylaws resulting from a stockholders' amendment approved by at least a majority of the outstanding voting shares. We have not opted out of these provisions. As a result, mergers or other takeover or change in control attempts of us may be discouraged or prevented.

Transfer agent and registrar

The transfer agent and registrar for our common stock is Equiniti Trust Company, LLC. The transfer agent's address is 6201 15th Avenue, Brooklyn, New York 11219.

Listing

We have applied for listing of our common stock on the Nasdaq Global Market under the trading symbol “CAMP.”

Limitations of liability and indemnification matters

For a discussion of liability and indemnification, see the section titled “Executive and director compensation—Limitations of liability and indemnification.”

Shares eligible for future sale

Immediately prior to this offering, there was no public market for our common stock, and no predictions can be made about the effect, if any, that market sales of our common stock or the availability of such shares for sale will have on the market price prevailing from time to time. Nevertheless, future sales of our common stock in the public market, or the perception that such sales may occur, could adversely affect the market price of our common stock and could impair our ability to raise capital through future sales of our securities. See the section titled "Risk factors—Risks related to this offering and ownership of our common stock—A significant portion of our total outstanding shares is restricted from immediate resale but may be sold into the market in the near future, which could cause the market price of our common stock to decline significantly, even if our business is doing well." Furthermore, although we have applied to have our common stock approved for listing on Nasdaq, we cannot assure you that there will be an active public trading market for our common stock.

Upon the completion of this offering, based on the number of shares of our common stock outstanding as of June 30, 2024, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after giving effect to the automatic conversion of all of the shares of our convertible preferred stock into an aggregate of 130,648,426 shares of our common stock, based on an 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 immediately prior to the completion of this offering, we will have an aggregate of shares of our common stock outstanding (or shares of our common stock if the underwriters exercise in full their option to purchase additional shares). Of these shares of our common stock, all of the shares sold in this offering (or shares if the underwriters exercise in full their option to purchase additional shares) will be freely tradable without restriction or further registration under the Securities Act, except for any shares purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act, whose sales would be subject to the Rule 144 resale restrictions described below, other than the holding period requirement.

All remaining shares of common stock held by existing stockholders immediately prior to the completion of this offering will be "restricted securities" as such term is defined in Rule 144. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below. We expect that substantially all of these shares will be subject to the 180-day lock-up period under the lock-up agreements described below. Upon expiration of the lock-up period, we estimate that approximately shares of our common stock will be available for sale in the public market, subject in some cases to applicable volume limitations under Rule 144.

Lock-up agreements

We and each of our directors and executive officers and the holders of substantially all of our outstanding capital stock have entered into lock-up agreements with the underwriters or otherwise agreed, among other things and subject to certain exceptions, not to sell or transfer any common stock or securities convertible into, exchangeable for, exercisable for, or repayable with common stock, for 180 days after the date of this prospectus without first obtaining the written consent of J.P. Morgan Securities LLC and Leerink Partners LLC.

Upon the expiration of the lock-up period, substantially all of the shares subject to such lock-up restrictions will become eligible for sale, subject to the limitations discussed above. For a further description of these lock-up agreements, please see the section titled "Underwriting."

After the date of the initial public filing of the prospectus, certain of our employees, including our executive officers, and/or directors may enter into written trading plans that are intended to comply with Rule 10b5-1 under the Exchange Act. Sales under these trading plans would not be permitted until the expiration of the lock-up agreements relating to the offering described above.

Rule 144

Affiliate resales of restricted securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is an affiliate of ours, or who was an affiliate at any time during the 90 days before a sale, who has beneficially owned shares of our common stock for at least six months would be entitled to sell (subject to the lock-up agreement referred to above, if applicable) in "broker's transactions" or certain "riskless principal transactions" or to market makers, a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares (or shares if the underwriters exercise in full their option to purchase additional shares) of our common stock immediately after this offering; or
- the average weekly trading volume in shares of our common stock on Nasdaq during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

An "affiliate" is a person that directly, or indirectly through one or more intermediaries, controls or is controlled by, or is under common control with an issuer. Affiliate resales under Rule 144 are also subject to the availability of current public information about us. In addition, if the number of shares being sold under Rule 144 by an affiliate during any three-month period exceeds 5,000 shares or has an aggregate sale price in excess of $50,000, the seller must file a notice on Form 144 with the SEC concurrently with either the placing of a sale order with the broker or the execution directly with a market maker.

Non-affiliate resales of restricted securities

In general, beginning 90 days after the effective date of the registration statement of which this prospectus is a part, a person who is not an affiliate of ours at the time of sale, and has not been an affiliate at any time during the three months preceding a sale, and who has beneficially owned shares of our common stock for at least six months but less than a year, is entitled to sell such shares subject only to the availability of current public information about us (as well as the lock-up agreement referred to above, if applicable). If such person has held our shares for at least one year, such person can resell under Rule 144(b)(1) without regard to any Rule 144 restrictions, including the 90-day public company requirement and the current public information requirement.

Non-affiliate resales are not subject to the manner of sale, volume limitation or notice filing provisions of Rule 144.

Rule 701

In general, under Rule 701, any of an issuer's employees, directors, officers, consultants or advisors who purchases shares from the issuer in connection with a compensatory stock or option plan or other written agreement before the effective date of a registration statement under the Securities Act is entitled to sell such shares 90 days after such effective date in reliance on Rule 144. An affiliate of the issuer can resell shares in reliance on Rule 144 without having to comply with the holding period requirement, and non-affiliates of the issuer can resell shares in reliance on Rule 144 without having to comply with the current public information and holding period requirements.

The SEC has indicated that Rule 701 will apply to typical options granted by an issuer before it becomes subject to the reporting requirements of the Exchange Act, along with the shares acquired upon exercise of such options, including exercises after an issuer becomes subject to the reporting requirements of the Exchange Act.

Equity plans

We intend to file one or more registration statements on Form S-8 under the Securities Act to register all shares of our common stock subject to outstanding options, RSUs and shares of our common stock issued or issuable

under our incentive plans. We expect to file the registration statement covering shares offered pursuant to our incentive plans shortly after the date of this prospectus, permitting the resale of such shares by non-affiliates in the public market without restriction under the Securities Act and the sale by affiliates in the public market, subject to compliance with the resale provisions of Rule 144.

Registration rights

Upon the completion of this offering, the holders of shares of our common stock or their transferees, after giving effect to the automatic conversion of all of the shares of our convertible preferred stock into 130,648,426 shares of our common stock, will be entitled to various rights with respect to the registration of these 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, except for shares purchased by affiliates. See the section titled “Description of capital stock—Registration rights” for additional information. Shares covered by a registration statement will be eligible for sale in the public market upon the expiration or release from the terms of the lock-up agreement.

Certain material U.S. federal income tax consequences to non U.S. holders

The following is a summary of the material U.S. federal income tax considerations relating to the purchase, ownership and disposition of our common stock by Non-U.S. Holders (defined below). This summary does not purport to be a complete analysis of all the potential tax considerations relevant to Non-U.S. Holders of our common stock. This summary is based upon the Code, the Treasury regulations promulgated or proposed thereunder and administrative and judicial interpretations thereof, all as of the date hereof and all of which are subject to change at any time, possibly on a retroactive basis.

This discussion is limited to Non-U.S. Holders that hold our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). For purposes of this summary, a "Non-U.S. Holder" means a beneficial owner of common stock that for U.S. federal income tax purposes is not classified as a partnership and is not:

- an individual who is a citizen or resident of the U.S.;
- a corporation or any other organization taxable as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the U.S., any state thereof or the District of Columbia;
- an estate, the income of which is included in gross income for U.S. federal income tax purposes regardless of its source; or
- a trust if (1) a U.S. court is able to exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

This discussion does not address all U.S. federal income tax consequences relevant to a Non-U.S. Holder's particular circumstances, including the impact of the alternative minimum tax or the Medicare contribution tax on net investment income. In addition, it does not address consequences relevant to Non-U.S. Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long term residents of the U.S.;
- persons holding our common stock as part of a hedge, straddle or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies and other financial institutions;
- brokers, dealers or traders in securities;
- "controlled foreign corporations," "passive foreign investment companies," and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships or other pass-through entities for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our common stock under the constructive sale provisions of the Code;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- tax-qualified retirement plans;
- persons who hold common stock that constitutes "qualified small business stock" under Section 1202 of the Code, or "Section 1244 stock" under Section 1244 of the Code;
- persons who acquired our common stock in a transaction subject to the gain rollover provisions of the Code (including Section 1045 of the Code);

- persons that acquired our common stock pursuant to the exercise of warrants or conversion rights under convertible instruments;
- persons who have elected to mark securities to market;
- persons that own, or have owned, actually or constructively, more than 5% of our common stock;
- "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; and
- persons subject to special tax accounting rules as a result of any item of gross income with respect to our common stock being taken into account in an applicable financial statement.

If an entity that is classified as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of persons treated as its partners for U.S. federal income tax purposes will generally depend upon the status of the partner and the activities of the partnership. Partnerships and other entities that are classified as partnerships for U.S. federal income tax purposes and persons holding our common stock through a partnership or other entity classified as a partnership for U.S. federal income tax purposes are urged to consult their own tax advisors.

There can be no assurance that the IRS will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain a ruling from the IRS with respect to the U.S. federal income tax consequences to a Non-U.S. Holder of the purchase, ownership or disposition of our common stock.

THIS SUMMARY IS FOR GENERAL INFORMATION ONLY AND IS NOT INTENDED TO BE TAX ADVICE. NON-U.S. HOLDERS ARE URGED TO CONSULT THEIR TAX ADVISORS CONCERNING THE U.S. FEDERAL INCOME TAXATION, STATE, LOCAL AND NON-U.S. TAXATION AND OTHER TAX CONSEQUENCES TO THEM OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK.

Distributions of our common stock

We do not currently expect to make distributions with respect to our common stock. If we make a distribution of cash or property with respect to our common stock, any such distributions generally will constitute dividends for U.S. federal income tax purposes to the extent of our current and accumulated earnings and profits, if any, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will constitute a return of capital and will first reduce the holder's adjusted tax basis in our common stock, but not below zero. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "—Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock." Any such distribution would also be subject to the discussion below under the section titled "—Additional Withholding and Reporting Requirements."

Dividends paid to a Non-U.S. Holder generally will be subject to a 30% U.S. federal withholding tax unless such Non-U.S. Holder provides us or our agent, as the case may be, with the appropriate IRS Form W-8, such as:

- IRS Form W-8BEN or W-8BEN-E (or successor form) certifying, under penalties of perjury, a reduction in withholding under an applicable income tax treaty, or
- IRS Form W-8ECI (or successor form) certifying that a dividend paid on our common stock is not subject to withholding tax because it is effectively connected with a trade or business in the U.S. of the Non-U.S. Holder (in which case such dividend generally will be subject to regular graduated U.S. tax rates as described below).

The certification requirement described above must be provided to us or our agent prior to the payment of dividends and must be updated periodically. The certification also may require a Non-U.S. Holder that provides an IRS form or that claims treaty benefits to provide its U.S. taxpayer identification number. Special certification and other requirements apply in the case of certain Non-U.S. Holders that hold shares of our common stock through intermediaries or are pass-through entities for U.S. federal income tax purposes.

Each Non-U.S. Holder is urged to consult its own tax advisor about the specific methods for satisfying these requirements. A claim for exemption will not be valid if the person receiving the applicable form has actual knowledge or reason to know that the statements on the form are false.

If dividends are effectively connected with a trade or business in the U.S. of a Non-U.S. Holder (and, if required by an applicable income tax treaty, are attributable to a permanent establishment maintained by such Non-U.S. Holder in the U.S.), the Non-U.S. Holder, although exempt from the withholding tax described above (provided that the certifications described above are satisfied), generally will be subject to U.S. federal income tax on such dividends on a net income basis in the same manner as if it were a resident of the U.S. In addition, if a Non-U.S. Holder is treated as a corporation for U.S. federal income tax purposes, the Non-U.S. Holder may be subject to an additional "branch profits tax" equal to 30% (unless reduced by an applicable income treaty) of its earnings and profits in respect of such effectively connected dividend income.

Non-U.S. Holders that do not timely provide us or our agent with the required certification, but which are eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty, may obtain a refund or credit of any excess amount withheld by timely filing an appropriate claim for refund with the IRS.

Gain on sale, exchange or other taxable disposition of our common stock

Subject to the discussion below under the section titled "—Additional withholding and reporting requirements," in general, a Non-U.S. Holder will not be subject to U.S. federal income tax or withholding tax on gain realized upon such holder's sale, exchange or other taxable disposition of shares of our common stock, unless (1) such Non-U.S. Holder is an individual who is present in the U.S. for 183 days or more in the taxable year of disposition, and certain other conditions are met, (2) we are or have been a "United States real property holding corporation," as defined in the Code, or a USRPHC, at any time within the shorter of the five-year period preceding the disposition and the Non-U.S. Holder's holding period in the shares of our common stock, and certain other requirements are met, or (3) such gain is effectively connected with the conduct by such Non-U.S. Holder of a trade or business in the U.S. (and, if required by an applicable income tax treaty, is attributable to a permanent establishment maintained by such Non-U.S. Holder in the U.S.).

If the first exception applies, the Non-U.S. Holder generally will be subject to U.S. federal income tax at a rate of 30% (or at a reduced rate under an applicable income tax treaty) on the amount by which such Non-U.S. Holder's capital gains allocable to U.S. sources exceed capital losses allocable to U.S. sources during the taxable year of the disposition. If the third exception applies, the Non-U.S. Holder generally will be subject to U.S. federal income tax with respect to such gain on a net income basis in the same manner as if it were a resident of the U.S. and a Non-U.S. Holder that is a corporation for U.S. federal income tax purposes may also be subject to a branch profits tax with respect to any earnings and profits attributable to such gain at a rate of 30% (or at a reduced rate under an applicable income tax treaty).

With respect to the second exception, generally, a corporation is a USRPHC only if the fair market value of its U.S. real property interests (as defined in the Code) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not, and do not anticipate becoming, a USRPHC. Even if we became a USRPHC, a Non-U.S. Holder would not be subject to U.S. federal income tax on a sale, exchange or other taxable disposition of our common stock by reason of our status as USRPHC so long as our common stock is regularly traded on an established securities market at any time during the calendar year in which the disposition occurs and such Non-U.S. Holder does not own and is not deemed to own (directly, indirectly or constructively) more than 5% of our common stock at any time during the shorter of the five year period ending on the date of disposition and the holder's holding period.

Additional withholding and reporting requirements

Sections 1471 through 1474 of the Code, and related Treasury Regulations, together with other Treasury Department and IRS guidance issued thereunder, and intergovernmental agreements, legislation, rules and other official guidance adopted pursuant to such intergovernmental agreements, commonly referred to as FATCA,

impose a U.S. federal withholding tax of 30% on certain payments, including dividends paid on our common stock, paid to (1) a "foreign financial institution" (as defined under FATCA) unless such institution furnishes proper documentation (typically on IRS Form W-8BEN-E) evidencing either (i) an exemption from FATCA withholding, (ii) its compliance (or deemed compliance) with specified due diligence, reporting, withholding and certification obligations under FATCA or (iii) residence in a jurisdiction that has entered into an intergovernmental agreement with the U.S. relating to FATCA and compliance with the diligence and reporting requirements of the intergovernmental agreement and local implementing rules; or (2) a "non-financial foreign entity" (as defined under FATCA) that does not furnish proper documentation, typically on IRS Form W-8BEN-E, evidencing either (i) an exemption from FATCA or (ii) adequate information regarding substantial U.S. beneficial owners of such entity (if any). An intergovernmental agreement between the U.S. and an applicable foreign country may modify these requirements.

The IRS and the Department of Treasury have issued proposed regulations on which taxpayers may rely providing that these withholding rules will not apply to the gross proceeds of a sale or other disposition of shares of our common stock. Prospective investors should consult their own tax advisors regarding the effect of FATCA on their ownership and disposition of our common stock.

Backup withholding and information reporting

We must report annually to the IRS and to each Non-U.S. Holder the gross amount of the distributions on our common stock paid to the holder and the tax withheld, if any, with respect to the distributions. Non-U.S. Holders may have to comply with specific certification procedures (such as the provision of a properly completed W-8BEN or W-8BEN-E) to establish that the holder is not a United States person (as defined in the Code) in order to avoid backup withholding at the applicable rate, currently 24%, with respect to dividends on our common stock. Dividends paid to Non-U.S. Holders subject to the U.S. withholding tax, as described above under the section titled "—Distributions on our common stock," generally will be exempt from U.S. backup withholding.

Information reporting and backup withholding will generally apply to the proceeds of a disposition of our common stock by a Non-U.S. Holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a Non-U.S. Holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the U.S. through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Prospective investors should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them, including the availability of and procedure for obtaining an exemption from backup withholding.

Copies of information returns may be made available to the tax authorities of the country in which the Non-U.S. Holder resides or, in which the Non-U.S. Holder is incorporated, under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a Non-U.S. Holder can be refunded or credited against the Non-U.S. Holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

Underwriting

We are offering the shares of common stock described in this prospectus through a number of underwriters. J.P. Morgan Securities LLC, Leerink Partners 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	
Leerink Partners LLC	
Piper Sandler & Co.	
William Blair & Company, L.L.C.	
Total	

The underwriters are committed to purchase all the 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 common stock is 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 U.S. 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	$	$

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 also agreed to reimburse the underwriters for expenses relating to the clearance of this offering with the Financial Industry Regulatory Authority, Inc., 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 (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, or submit to, or file with, the Securities and Exchange Commission, or the SEC, a registration statement under the Securities Act relating to, any shares of our common stock or securities convertible into or exercisable or exchangeable for any shares of our common stock, or publicly disclose the intention to make any offer, sale, pledge, loan, disposition or filing, or (ii) enter into any hedging, swap or other arrangement that transfers all or a portion of the economic consequences associated with the ownership of any shares of common stock or any such other securities (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), without the prior written consent of J.P. Morgan Securities LLC and Leerink Partners LLC 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 described above do not apply to: (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 our 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 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 our common stock, or securities convertible into, exercisable for, or which are otherwise exchangeable for, our common stock, immediately following the closing 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) our 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 shareholders (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 and Leerink Partners LLC, (1) 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 securities convertible into or exercisable or exchangeable for our common stock (including, without limitation, common stock or such other securities which may be deemed to be beneficially owned by such lock-up parties 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”)), (2) 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 (1) or (2) above is to be settled by delivery of lock-up securities, in cash or otherwise, (3) make any demand for, or exercise any right with respect to, the registration of any lock-up securities, or (4) publicly disclose the intention to do any of the foregoing. Such persons or entities have further acknowledged that these undertakings preclude them from engaging, during the restricted period, 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 by 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.

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 of lock-up securities: (i) as a bona fide gift or gifts, or for bona fide estate planning purposes, or as a charitable contribution; (ii) by will, other testamentary document or intestacy; (iii) to any immediate family member of the lock-up party or any trust for the direct or indirect benefit of the lock-up party or any immediate family member, or if the lock-up party is a trust, to a trustor, trustee (or co-trustee) or beneficiary of the trust or to the estate of a beneficiary of the trust; (iv) to a corporation, partnership, limited liability company or other entity 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; (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 an affiliate (as defined in Rule 405 promulgated under the Securities Act of 1933) 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 (including, for the avoidance of doubt, where the lock-up party is a partnership, to its general partner or a successor partnership or fund, or any other funds managed by such general partnership, partnership or fund) or (B) as part of a distribution, transfer or disposition without consideration to direct or indirect members, retired members, shareholders, partners, former partners, beneficiaries or other equity holders of the lock-up party; (vii) by operation of law or pursuant to an order of a court or regulatory agency (including a qualified domestic order, divorce settlement, divorce decree or separation agreement); (viii) to us from an employee or other service provider of ours upon death, disability or termination of employment or service relationship, in each case, of such employee or service provider, including without limitation, pursuant to a right of first refusal or an option to repurchase that we have with respect to transfers of such lock-up securities or other securities of ours; (ix) as part of a sale or transfer of lock-up securities acquired in this offering or in open market transactions after the completion of this offering; (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, in each case, and without limitation, by way of “net” or “cashless” exercise), including, without limitation, for the payment of exercise price and tax and remittance payments due as a result of the vesting, settlement, or exercise of such restricted stock units, options, warrants or rights; or (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 shareholders involving a change in control, provided that if such transaction is not completed, all such lock-up securities would remain subject to the restrictions in the immediately preceding paragraph; (b) exercise of outstanding options, settlement of restricted stock units or other equity awards, or exercise of warrants pursuant to plans or other equity compensation arrangements described 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) 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; and (d) the establishment or modification of trading plans under Rule 10b5-1 under the Exchange Act for the transfer of lock-up securities, provided that (1) such plans do not provide for the transfer of lock-up securities during the restricted period and (2) any public announcement or filing under the Exchange Act regarding such plan includes the restrictions set forth in the immediately preceding paragraph.

J.P. Morgan Securities LLC and Leerink Partners LLC, 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 have applied to have our common stock approved for listing on the Nasdaq Global Market under the symbol “CAMP.”

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.

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 the Nasdaq Global Market, 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 our common stock, or that the shares will trade in the public market at or above the initial public offering price.

Other than in the U.S., 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 of our common stock 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 of our common stock 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 other than at any time under the following exemptions under the Prospectus Regulation:

(a) to any legal entity which is a qualified investor as defined under the Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under the Prospectus Regulation), subject to obtaining the prior consent of the underwriters for any such offer; or

(c) in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of shares of common stock shall require us or any underwriter to publish a prospectus pursuant to Article 3 the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation and each person who initially acquires any shares of common stock or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and us that it is a “qualified investor” within the meaning of Article 2(e) of the Prospectus Regulation.

In the case of any shares of common stock 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 of common stock 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 of common stock 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 has 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 any shares of common stock 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 of common stock 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 of our common stock which either (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 share of our common stock may be offered to the public in the United Kingdom at any time:

(a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of representatives for any such offer; or

(c) in any other circumstances falling within Section 86 of the FSMA,

provided that no such offer of the share of our common stock shall require us or any representative 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 of our common stock 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 of our common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of our common stock 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, or 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 of common stock 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 of common stock 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, or 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

The shares of common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This document does not constitute a prospectus within the meaning of, and has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or

marketing material relating to the shares of common stock or the offering may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this document nor any other offering or marketing material relating to the offering, us, or the shares of common stock have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares of common stock will not be supervised by, the Swiss Financial Market Supervisory Authority, or FINMA, and the offer of shares of common stock has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares of common stock.

Notice to prospective investors in Hong Kong

The shares of common stock 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), or the SFO, 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, or 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 of common stock 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 of common stock 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 representative has acknowledged that this prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each representative has represented and agreed that it has not offered or sold any shares of common stock or caused the shares of common stock to be made the subject of an invitation for subscription or purchase and will not offer or sell any shares of common stock or cause the shares of common stock 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 of common stock, whether directly or indirectly, to any person in Singapore other than:

(a) 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, or the SFA) pursuant to Section 274 of the SFA;

(b) 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

(c) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the shares of common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

(a) 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

(b) 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 of common stock 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)(i)(B) 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 the shares of 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 Japan

The shares of common stock 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 of common stock 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 the United Arab Emirates

The shares of common stock have not been, and are not being, publicly offered, sold, promoted or advertised in the United Arab Emirates (including the Dubai International Financial Centre, or the DIFC) other than in compliance with the laws of the United Arab Emirates (and the DIFC) 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 DIFC) 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 or the Dubai Financial Services Authority, or the DFSA.

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 of common stock 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.

Notice to prospective investors in Australia

This prospectus:

(a) does not constitute a disclosure document or a prospectus under Chapter 6D.2 of the Corporations Act 2001 (Cth), or the Corporations Act;

(b) has not been, and will not be, lodged with the Australian Securities and Investments Commission, or 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

(c) 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, or Exempt Investors, available under section 708 of the Corporations Act.

The shares of common stock may not be directly or indirectly offered for subscription or purchased or sold, and no invitations to subscribe for or buy the shares of common stock may be issued, and no draft or definitive offering memorandum, advertisement or other offering material relating to any shares of common stock 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 of common stock, you represent and warrant to us that you are an Exempt Investor.

As any offer of shares of common stock under this document 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 common stock you undertake to us that you will not, for a period of 12 months from the date of issue of the shares of common stock, offer, transfer, assign or otherwise alienate those shares of 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 China

This prospectus will not be circulated or distributed in the PRC and the shares of common stock 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 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 of common stock 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, or the FSCMA, and the shares of common stock have been and will be offered in Korea as a private placement under the FSCMA. None of the shares of common stock 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, or FETL. Furthermore, the purchaser of the shares of common stock shall comply with all applicable regulatory requirements (including but not limited to requirements under the FETL) in connection with the purchase of the shares of common stock. By the purchase of the shares of common stock,

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 of common stock pursuant to the applicable laws and regulations of Korea.

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 Offers of Securities Regulations as issued by the board of the Saudi Arabian Capital Market Authority, or CMA, pursuant to resolution number 2-11-2004 dated 4 October 2004 as amended by resolution number 1-28-2008, as amended, or 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 authorized financial adviser.

Notice to prospective investors in the Dubai International Financial Centre

This document relates to an Exempt Offer in accordance with the Markets Rules 2012 of the DFSA. This document is intended for distribution only to persons of a type specified in the Markets Rules 2012 of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus 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 Bermuda

Shares of common stock 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 the British Virgin Islands

The shares of common stock 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 the company. The shares of common stock may be offered to companies incorporated under the BVI Business Companies Act, 2004 (British Virgin Islands), or the 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 Malaysia

No prospectus or other offering material or document in connection with the offer and sale of the shares of common stock has been or will be registered with the Securities Commission of Malaysia, or the 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 of common stock may not be circulated or distributed, nor may the shares of common stock 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 of common stock, as principal, if the offer is on terms that the shares of common stock 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 of common stock is made by a holder of a Capital Markets Services Licence 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 of common stock 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 authorized to offer, sell, give advice regarding or otherwise intermediate the offering and sale of the shares of common stock in Taiwan.

Notice to prospective investors in South Africa

Due to restrictions under the securities laws of South Africa, the shares of common stock are not offered, and the offer shall not be transferred, sold, renounced or delivered, in South Africa or to a person with an address in South Africa, unless one or other of the following exemptions applies:

Section 96(1)(a): the offer, transfer, sale, renunciation or delivery is to:

(a) persons whose ordinary business, or part of whose ordinary business, is to deal in securities, as principal or agent;

(b) the South African Public Investment Corporation;

(c) persons or entities regulated by the Reserve Bank of South Africa;

(d) authorised financial service providers under South African law;

(e) financial institutions recognised as such under South African law;

(f) a wholly-owned subsidiary of any person or entity contemplated in (iii), (iv) or (v), acting as agent in the capacity of an authorized 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

(g) any combination of the persons in (i) to (vi); or

Section 96(1)(b): the total contemplated acquisition cost of the securities, for a 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.

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.

Legal matters

The validity of the shares of common stock offered by this prospectus will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. Certain legal matters will be passed upon for the underwriters by Paul Hastings LLP, New York, New York.

Experts

The consolidated financial statements of CAMP4 Therapeutics Corporation as of December 31, 2023 and 2022 and for the years then ended appearing in this prospectus and registration statement have been audited by Ernst & Young, LLP, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements) appearing elsewhere herein, and are included in reliance upon such report given upon the authority of such firm as experts in accounting and auditing.

Where you can find more information

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information with respect to our company and the common stock offered by this prospectus, we refer you to the registration statement and the exhibits and schedules filed thereto.

Statements contained in this prospectus as to the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. The SEC also maintains an internet website that contains reports, proxy statements and other information about registrants, like us, that file electronically with the SEC. The address of that site is www.sec.gov.

Upon the effectiveness of the registration statement, we will be subject to the informational requirements of the Exchange Act and, in accordance with the Exchange Act, will file reports, proxy and information statements and other information with the SEC. Such annual, quarterly and special reports, proxy and information statements and other information can be accessed at the SEC's website referenced above. We also intend to make this information available on the investor relations section of our website, which is located at www.camp4tx.com. Information contained on or accessible through our website is not a part of this prospectus, and the inclusion of our website address in this prospectus is an inactive textual reference only.

CAMP4 Therapeutics Corporation
Index to consolidated financial statements

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of CAMP4 Therapeutics Corporation.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of CAMP4 Therapeutics Corporation (the Company) as of December 31, 2023 and 2022, the related consolidated statements of operations and comprehensive loss, convertible preferred stock and stockholders' deficit and cash flows for the years then ended, and 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 consolidated financial position of the Company at December 31, 2023 and 2022, and the results of its operations and its cash flows for the years then ended, in conformity with U.S. generally accepted accounting principles.

The Company's Ability to Continue as a Going Concern

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has suffered recurring losses from operations and has stated that substantial doubt exists about the Company's ability to continue as a going concern. Management's evaluation of the events and conditions and management's plans regarding these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2017.

Boston, Massachusetts
June 14, 2024

CAMP4 Therapeutics Corporation
Consolidated balance sheets
(In thousands, except share and per share amounts)

	December 31,	
Assets	**2023**	**2022**
Current assets:		
Cash and cash equivalents	$ 38,380	$ 83,190
Prepaid expenses and other current assets	1,633	1,219
Total current assets	40,013	84,409
Restricted cash	1,624	1,346
Property and equipment, net	4,797	5,648
Operating lease right-of-use assets	7,764	10,770
Finance lease right-of-use assets	748	376
Total assets	$ 54,946	$ 102,549
Liabilities, Convertible Preferred Stock and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 1,042	$ 2,151
Accrued expenses and other current liabilities	3,302	3,425
Operating lease liabilities, current portion	2,704	2,227
Finance lease liabilities, current portion	354	143
Financing liability, current portion	405	—
Total current liabilities	7,807	7,946
Operating lease liabilities, net of current portion	8,487	9,880
Finance lease liabilities, net of current portion	148	145
Financing liability, net of current portion	85	—
Other long-term liabilities	2	2
Total liabilities	16,529	17,933
Commitments and contingencies (Note 7)		
Convertible preferred stock, $0.0001 par value per share; 149,673,284 shares authorized as of December 31, 2023 and 2022, 130,648,426 shares issued and outstanding as of December 31, 2023 and 2022; liquidation value of $162,885 as of December 31, 2023 and 2022	162,147	162,147
Stockholders' deficit:		
Common stock, $0.0001 par value per share; 210,000,000 shares authorized as of December 31, 2023 and 2022; 11,509,269, and 11,559,826 shares issued, 5,168,193 and 4,002,103 shares outstanding as of December 31, 2023 and 2022, respectively	1	1
Additional paid-in capital	36,231	33,139
Accumulated deficit	(159,962)	(110,671)
Total stockholders' deficit	(123,730)	(77,531)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 54,946	$ 102,549

The accompanying notes are an integral part of these consolidated financial statements.

CAMP4 Therapeutics Corporation
Consolidated statements of operations and comprehensive loss
(In thousands, except for share and per share data)

	Year ended December 31,	
	2023	2022
Revenue		
Research and collaboration revenue	$ 350	$ —
Operating expenses		
Research and development	40,616	34,771
General and administrative	11,613	10,230
Total operating expenses	52,229	45,001
Loss from operations	(51,879)	(45,001)
Other income (expense), net:		
Interest income	2,808	904
Other expense	(220)	(95)
Total other income (expense), net	2,588	809
Net loss attributable to common stockholders and comprehensive loss	$ (49,291)	(44,192)
Net loss per share attributable to common stockholders, basic and diluted	$ (11.13)	$ (12.61)
Weighted average shares of common stock outstanding, basic and diluted	4,429,564	3,503,242

The accompanying notes are an integral part of these consolidated financial statements.

CAMP4 Therapeutics Corporation
Consolidated statements of convertible preferred stock and stockholders' deficit
(In thousands, except share amounts)

	Convertible preferred stock		Common stock		Additional paid-in capital	Accumulated deficit	Total stockholders' deficit
	Shares	Amount	Shares	Amount			
Balance at January 1, 2022	62,389,791	$ 61,952	3,017,624	$ 1	$ 31,707	$ (66,479)	$ (34,771)
Issuance of common stock	—	—	224,245	—	55	—	55
Issuance of Series B convertible preferred stock, net of issuance costs of $309	68,258,635	100,195	—	—	—	—	—
Vesting of restricted common stock	—	—	760,234	—	—	—	—
Stock-based compensation expense	—	—	—	—	1,377	—	1,377
Net loss	—	—	—	—	—	(44,192)	(44,192)
Balance at January 1, 2023	130,648,426	$ 162,147	4,002,103	$ 1	$ 33,139	$ (110,671)	$ (77,531)
Vesting of restricted common stock	—	—	683,390	—	—	—	—
Issuance of common stock	—	—	482,700	—	185	—	185
Stock-based compensation expense	—	—	—	—	2,907	—	2,907
Net loss	—	—	—	—	—	(49,291)	(49,291)
Balance at December 31, 2023	130,648,426	$ 162,147	5,168,193	$ 1	$ 36,231	$ (159,962)	$ (123,730)

The accompanying notes are an integral part of these consolidated financial statements.

CAMP4 Therapeutics Corporation
Consolidated statements of cash flows
(In thousands)

	Year ended December 31,	
	2023	2022
Operating Activities		
Net loss	$ (49,291)	$ (44,192)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,678	878
Stock-based compensation expense	2,907	1,377
Non-cash lease expense	1,728	1,678
Non-cash interest expense	92	12
Changes in operating assets and liabilities:		
Prepaid and other current assets	(420)	(630)
Accounts payable	(1,115)	1,331
Accrued expenses and other liabilities	(136)	1,891
Operating lease assets and liabilities	402	(888)
Net cash used in operating activities	(44,155)	(38,543)
Investing Activities		
Purchases of property and equipment	(678)	(4,025)
Net cash used in investing activities	(678)	(4,025)
Financing Activities		
Proceeds from issuance of convertible preferred stock, net of issuance costs	—	100,195
Proceeds from exercise of common stock options	185	55
Proceeds from financing obligation, net of issuance costs	706	—
Principal payments on financing obligation	(268)	—
Principal payments on finance leases	(322)	(93)
Net cash provided by financing activities	301	100,157
Net (decrease) increase in cash, cash equivalent and restricted cash	(44,532)	57,589
Cash, cash equivalents and restricted cash at beginning of year	84,536	26,947
Cash, cash equivalents and restricted cash at end of period	$ 40,004	$ 84,536
Supplemental disclosure of cash flow information:		
Operating lease right-of-use asset obtained in exchange for lease liabilities	$ 1,397	$ 12,449
Finance lease right-of-use asset obtained in exchange for lease liabilities	$ 504	$ 369
Purchases of property and equipment in accounts payable and accrued expenses	$ 12	$ 295

The accompanying notes are an integral part of these consolidated financial statements.

CAMP4 Therapeutics Corporation
Notes to consolidated financial statements

1. Description of business and basis of presentation

Description of business

CAMP4 Therapeutics Corporation, formerly Marauder Therapeutics, Inc., and its subsidiary (collectively, the "Company"), is a clinical-stage biopharmaceutical company pioneering the discovery and development of regulatory RNA-based therapeutics with the goal of upregulating gene expression and restoring healthy protein levels to treat a broad range of genetic diseases. The Company is initially focusing on genetic diseases of the central nervous system and liver. The Company was organized in September 2015 and began operations in 2016.

Basis of presentation and principles of consolidation

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("US GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative standards of US GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

The Company's consolidated financial statements include the accounts of CAMP4 Therapeutics Corporation and its wholly owned subsidiary, CAMP4 Therapeutics Pty Ltd ("CAMP4 AUS"), which was established on September 15, 2023. All intercompany balances and transactions have been eliminated in consolidation.

Liquidity and going concern

As of December 31, 2023, the Company had approximately $38.4 million of cash and cash equivalents and working capital of approximately $32.2 million. The Company has a relatively limited operating history, and the revenue and income potential of the Company's business and market are unproven. The Company has experienced net losses and negative cash flows from operations since its inception and, as of December 31, 2023, the Company had an accumulated deficit of $160.0 million. During the year ended December 31, 2023, the Company incurred a net loss of $49.3 million and had negative cash flows from operations of $44.2 million. The Company will continue to incur significant costs and expenses related to its ongoing operations until it successfully develops, obtains regulatory approval for and gains market acceptance of a product candidate and achieves revenues adequate to support the Company's operations.

From inception to December 31, 2023, the Company has funded its operations primarily through the issuance of convertible preferred stock and revenues from its license and collaboration agreements. The Company's current capital resources, which consist of cash and cash equivalents, will not be sufficient to fund operations through at least the next twelve months from the date the accompanying consolidated financial statements are issued based on its current operating plan. As the Company continues to pursue its business plan, it expects to finance its operations through potential public or private equity offerings, debt financings or other capital sources, including current or potential future collaborations, licenses and other similar arrangements. However, there can be no assurance that any additional financing or strategic arrangements will be available to the Company on acceptable terms, if at all. If events or circumstances occur such that the Company does not obtain additional funding, it may be necessary to significantly reduce its scope of operations to reduce the current rate of spending through actions such as reductions in staff and the need to delay, limit, reduce or terminate product development or future commercialization efforts or grant rights to develop and market product candidates that it would otherwise prefer to develop and market itself, which could have a material adverse effect on the Company's business, results of operations or financial condition.

The accompanying consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the ordinary course of business. The financial

statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

2. Summary of significant accounting policies

Use of estimates

The preparation of consolidated financial statements in conformity with US GAAP requires management to make estimates assumptions, and judgments that affect the reported amounts of assets, liabilities, expenses and related disclosures in the accompanying notes. The Company bases its estimates, assumptions and judgments on historical experience when available and on various factors that it believes to be reasonable under the circumstances as of the date of the accompanying consolidated financial statements, including the fair value of common stock, stock-based compensation expense, accrued expenses, lease accounting and the recoverability of the Company's net deferred tax assets and related valuation allowance. In addition, other factors may affect estimates, including the expected business and operational changes, the sensitivity and volatility associated with the assumptions used in developing estimates, and whether historical trends are expected to be representative of future trends. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes, and management must select an amount that falls within that range of reasonable estimates. Actual results could differ materially from the estimates and assumptions used in the preparation of the accompanying consolidated financial statements under different assumptions or conditions.

Cash and cash equivalents

The Company considers all highly liquid investments and instruments with original maturities of 90 days or less that can be liquidated without prior notice or penalty to be cash equivalents. Cash equivalents primarily represent funds invested in readily available money market accounts. As of December 31, 2023 and 2022, the Company had cash and cash equivalents balances deposited at one major financial institution.

Restricted cash

In connection with its operating leases, the Company is required to maintain security deposits totaling $1.5 million, which were issued in the form of letters of credit with a bank. As of December 31, 2023 and 2022, the Company held cash in this amount in separate restricted bank accounts as collateral for the letters of credit. The restricted cash balance is classified as long-term restricted cash on the accompanying consolidated balance sheets. In addition, the Company held less than $0.1 million of cash in money market accounts as of each of December 31, 2023 and 2022 as collateral for the Company's credit card obligation and increased letter of credit due to an amendment to the leases.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported in the consolidated balance sheets to the corresponding amounts shown in the consolidated statements of cash flows:

	December 31,	
	2023	2022
Cash and cash equivalents	$38,380	$83,190
Restricted cash	1,624	1,346
Total cash, cash equivalents and restricted cash	$40,004	$84,536

Concentration of credit risks

Financial instruments that subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents. The Company deposits cash and cash equivalents with high credit quality financial institutions in the United States. These deposits are held in checking and money market accounts and may, from time to time, exceed the federally insured amounts. The Company has not experienced any losses in such accounts.

The Company believes it is not exposed to any significant risk in its cash and cash equivalents. The primary objectives of the Company's investment portfolio are the preservation of capital and maintenance of liquidity.

The Company is subject to risks common to companies in the biopharmaceutical industry, including, but not limited to, risks related to the successful development and commercialization of product candidates, fluctuations in operating results and financial risks, the ability to successfully raise additional funds when needed, protection of proprietary rights and patent risks, patent litigation, compliance with government regulations, dependence on key personnel and collaboration partners, dependence on third-party manufacturers and competition from competing products in the marketplace.

Fair value measurements

The Company applies fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Fair value is measured as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market. A framework is used for measuring fair value utilizing a three-tier hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3).

The three levels of the fair value hierarchy are as follows:

***Level* 1—**Observable inputs such as unadjusted quoted prices in active markets that are accessible at the measurement date for identical unrestricted assets or liabilities the Company has the ability to access;

***Level* 2—**Inputs (other than quoted prices included within Level 1) that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active; and

***Level* 3—**Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

Financial instruments are categorized in their entirety based on the lowest level of input that is significant to the fair value measurement. The assessment of the significance of a particular input to the fair value measurement requires judgment and considers factors specific to the investment. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. The Company reviews the fair value hierarchy classification at each reporting date. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain assets or liabilities within the fair value hierarchy. The Company did not have any transfers of assets and liabilities between the levels of the fair value measurement hierarchy during the years presented.

Foreign currency remeasurement

The Company's reporting currency and the functional currency of its foreign subsidiary, CAMP4 AUS, is the United States Dollar ("USD"). At the date a foreign currency denominated transaction is recognized, each asset, liability, revenue, expense, gain or loss arising from the transaction is measured initially in USD based on the exchange rate in effect at that date. Subsequently, at each balance sheet date, balances related to monetary assets and liabilities are adjusted to reflect the current exchange rate, which is the rate at which the related receivable or payable could be settled at that date.

Foreign exchange transaction gains and losses are included in other income (expense), net in the accompanying consolidated statements of operations and comprehensive loss and were immaterial for the years ended December 31, 2023 and 2022.

Comprehensive loss

There were no differences between net loss and comprehensive loss presented in the consolidated statements of operations for the years ended December 31, 2023 and 2022.

Property and equipment, net

Property and equipment are stated at cost less accumulated depreciation. Expenditures for maintenance and repairs are charged to expense as incurred, whereas major betterments are capitalized as additions to property and equipment. Depreciation is calculated using the straight-line method over the following estimated useful lives of the assets:

Description	Useful life
Computer and software	Three years
Laboratory equipment	Five years
Furniture and fixtures	Seven years
Leasehold improvements	Shorter of asset life or remaining lease term

Impairment of long-lived assets

The Company evaluates its long-lived assets, which consist of property and equipment, operating lease right-of-use assets, and finance lease right-of-use assets, for impairment at least annually and whenever events or changes in circumstances indicate that the carrying value of an asset 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 the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset. The Company recognized no impairment losses for the years ended December 31, 2023 and 2022.

Commitments and contingencies

Contractual commitments

The Company enters into contracts in the normal course of business with contract research organizations (“CROs”), contract manufacturing organizations (“CMOs”), academic institutions and other third parties for preclinical and clinical research studies, testing and manufacturing services. These contracts generally do not contain minimum purchase commitments and are cancellable by the Company upon prior written notice, although purchase orders for preclinical materials are generally non-cancellable. Payments due upon cancellation consist primarily of payments for services provided or expenses incurred, including non-cancellable obligations from the Company’s service providers, up to the date of cancellation or upon the completion of a manufacturing run.

Guarantees and indemnifications

Indemnification obligations

The Company has entered into indemnification agreements with its officers and directors that require the Company to indemnify such individuals for certain events or occurrences while each such officer or director is, or was, serving at the Company’s request in such capacity. The maximum potential future payments the Company could be required to make is, in many cases, unlimited. The Company has directors’ and officers’ liability insurance coverage that limits its exposure and enables the Company to recover a portion of any future amounts paid.

The Company leases office and laboratory space under operating leases. The Company has standard indemnification arrangements under the leases that require it to indemnify the landlords against all costs, expenses, fines, suits, claims, demands, liabilities and actions directly resulting from any breach, violation or nonperformance of any covenant or condition of the Company’s leases.

In the ordinary course of its business, the Company enters into indemnification agreements with certain suppliers and business partners pursuant to which the Company has certain indemnification obligations limited to the costs, expenses, fines, suits, claims, demands, liabilities and actions directly resulting from the Company's gross negligence or willful misconduct, and in certain instances, breaches, violations or nonperformance of covenants or conditions under the agreements.

As of December 31, 2023 and 2022, the Company had not experienced any material losses related to these indemnification obligations, and no material claims with respect thereto were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible, and no related reserves were established.

The Company is subject to the possibility of loss contingencies arising in the ordinary course of business. Management considers the likelihood of loss related to an asset, or the incurrence of a liability, as well as its ability to reasonably estimate the amount of the loss, in determining loss contingencies. An estimated loss contingency is accrued when it is probable that an asset has been impaired, or a liability has been incurred and the amount of loss can be reasonably estimated. The Company regularly evaluates current information available to determine whether such accruals should be adjusted and whether new accruals are required.

Legal proceedings

From time to time, the Company may become involved in litigation relating to claims arising from the ordinary course of business. Management believes that there are no claims or actions pending against the Company currently, the ultimate disposition of which would have a material adverse effect on the Company's consolidated results of operations, financial condition or cash flows.

Leases

In accordance with ASC 842, *Leases*, the Company determines if an arrangement is or contains a lease at inception. A contract is or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Company classifies leases at the lease commencement date as operating or finance leases and records a right-of-use asset and a lease liability on the consolidated balance sheet for all leases with an initial lease term of greater than 12 months. Leases with an initial term of 12 months or less are not recorded in the balance sheet, but payments are recognized as expense on a straight-line basis over the lease term.

A lease qualifies as a finance lease if any of the following criteria are met at the inception of the lease: (i) there is a transfer of ownership of the leased asset to the Company by the end of the lease term, (ii) the Company holds an option to purchase the leased asset that it is reasonably certain to exercise, (iii) the lease term is for a major part of the remaining economic life of the leased asset, (iv) the present value of the sum of lease payments equals or exceeds substantially all of the fair value of the leased asset, or (v) the nature of the leased asset is specialized to the point that it is expected to provide the lessor no alternative use at the end of the lease term. All other leases are recorded as operating leases.

The Company enters into contracts that contain both lease and non-lease components. Non-lease components may include maintenance, utilities and other operating costs. The Company combines the lease and non-lease components of fixed costs in its lease arrangements as a single lease component. Variable costs, such as utilities or maintenance costs, are not included in the measurement of right-of-use assets and lease liabilities, but rather are expensed when the event determining the amount of variable consideration to be paid occurs.

Finance and operating lease assets and liabilities are recognized at the lease commencement date based on the present value of the lease payments over the lease term using the discount rate implicit in the lease. If the rate implicit is not readily determinable, the Company utilizes an estimate of its incremental borrowing rate based upon the available information at the lease commencement date. Operating lease assets are further adjusted for prepaid or accrued lease payments. Operating lease assets are expensed using the straight-line method as an operating expense over the lease term. Finance lease assets are amortized to depreciation expense using the

straight-line method. Finance lease payments are bifurcated into (i) a portion that is recorded as imputed interest expense and (ii) a portion that reduces the finance liability associated with the lease.

Certain of the Company's leases provide a lease incentive in the form of reimbursable leasehold improvements. Due to the unpredictability of the payout of leasehold improvement reimbursements, the Company recognizes a reduction to the right-of-use asset and the lease liability once it has incurred costs that qualify as reimbursable by the lessor. The reduction to the right-of-use asset is recognized prospectively over the remainder of the lease term.

Certain of the Company's leases include options to extend or terminate the lease. The amounts determined for the Company's right-of-use assets and lease liabilities generally do not assume that renewal options or early-termination provisions, if any, are exercised, unless it is reasonably certain that the Company will exercise such options.

In addition, the Company examines other contracts with suppliers, vendors and outside parties to identify whether such contracts contain an embedded lease and, as applicable, records such embedded leases in accordance with ASC 842, *Leases*.

Financing obligation (failed sale-leaseback)

In accordance with ASC 842, *Leases*, for potential sale-leaseback transactions, the Company assesses the contract to identify if a sale occurred in accordance with ASC 606. Sale-and-leaseback transactions occur when the Company sells assets to a third-party and simultaneously leases them back. The resulting leases that qualify for sale-and-leaseback accounting are evaluated and accounted for as operating leases. A transaction that does not qualify for sale-and-leaseback accounting as a result of finance lease classification or the failure to meet certain revenue recognition criteria is accounted for as a financing transaction. For a financing transaction, the Company will retain the assets sold within Property, plant and equipment, net and record a financing obligation equal to the amount of cash proceeds received. Rental payments under such transactions are recognized as a reduction of the financing obligation and as interest expense using an effective interest method. To date, the Company has entered into one failed sale-leaseback transaction. See additional discussion in *Note 7. Commitments and Contingencies*.

Revenue recognition and accounting for collaboration agreements

Revenue from contracts with customers

The Company recognizes revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. In determining the appropriate amount of revenue to be recognized as it fulfills its obligations under its agreements, the Company performs the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation.

As part of the accounting for revenue from contracts with customers, the Company uses judgment to determine: (a) the performance obligations based on the determination under step (ii) above; (b) the transaction price under step (iii) above; and (c) the recognition of revenue as services are performed under step (v) above. The Company also uses judgment to determine whether development milestones or other variable consideration, with the exception of royalties and sales-based milestones, should be included in the transaction price as described further below.

The Company applies the five-step model to contracts when the arrangement is not a collaboration pursuant to ASC Topic 808, *Collaborative Arrangements* ("ASC 808"), and it is probable that the Company will collect the

consideration it is entitled to in exchange for the goods or services it transfers to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, the Company assesses the goods or services promised within each contract and determines those that are performance obligations. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Collaborative agreements

The Company analyzes its collaboration agreements to assess whether they are within the scope of ASC 808 by determining whether such arrangements involve joint operating activities performed by parties that are both active participants in the activities and exposed to significant risks and rewards that are dependent on the commercial success of such activities. To the extent the arrangement is within the scope of ASC 808, the Company assesses whether aspects of the arrangement between the Company and the collaboration partner are within the scope of other accounting literature. If the Company concludes that some or all aspects of the arrangement represent a transaction with a customer, the Company accounts for those aspects of the arrangement within the scope of ASC 606. If the Company concludes that some or all aspects of the arrangement are within the scope of ASC 808 and do not represent a transaction with a customer, the Company recognizes the Company's share of the allocation of the shared costs incurred with respect to the jointly conducted activities as a component of the related expense in the period incurred.

Research and development expenses

Research and development ("R&D") expenses consist of costs incurred for R&D of its lead product candidate, CMP-CPS-001, and are recorded to operating expenses when incurred. The Company's R&D expenses consist primarily of costs incurred in performing R&D activities, including personnel-related expenses such as salaries, stock-based compensation and benefits, facilities costs, depreciation and external costs of outside vendors engaged to conduct clinical and preclinical development activities and to manufacture CMP-CPS-001. The Company accrues expenses related to development activities performed by third parties based on an evaluation of services received and efforts expended pursuant to the terms of the contractual arrangements. Payments under some of these contracts depend on preclinical trial milestones. Non-refundable advance payments for goods and services that will be used over time for research and development are deferred and capitalized as research and development prepaid expenses on our consolidated balance sheets. The capitalized amounts are recognized as an expense as the goods are delivered or as the related services are performed. In accruing service fees, the Company estimates the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, the Company will adjust the accrual or prepaid expense accordingly. Costs to acquire technologies to be used in R&D that have not reached technological feasibility and have no alternative future use are also expensed as incurred.

General and administrative expenses

General and administrative ("G&A") expenses consist primarily of personnel-related expenses, including salaries, bonuses, benefits, travel and stock-based compensation expenses for employees in executive, accounting and finance, business development, human resources, legal, and other administrative functions. Other significant G&A expenses include allocated facility-related costs, legal fees relating to corporate and intellectual property matters, professional fees for accounting, audit and tax services, consulting fees and insurance costs. G&A costs are expensed as incurred.

Patent costs

All patent-related costs incurred in connection with filing and prosecuting patent applications are expensed as incurred due to the uncertainty about the recovery of the expenditure. Amounts are classified as G&A expenses.

Offering costs

The Company complies with the requirements of ASC 340, *Other Assets and Deferred Costs*, with regards to offering costs. Prior to the completion of an offering of common stock, direct offering costs are capitalized as deferred offering costs. The deferred offering costs are charged to additional paid-in capital for offerings of common stock or as a reduction in the carrying value of preferred stock for offerings of preferred stock. As of December 31, 2023 and 2022, the Company had no deferred offering costs recorded. During the year ended December 31, 2022, the Company recorded $0.3 million of offering costs related to the Series B convertible stock issuance and recognized this amount as a reduction in the carrying value of the Series B convertible preferred stock.

Stock-based compensation

The Company periodically grants equity-based payment awards in the form of stock options to employees, directors and non-employees and records stock-based compensation expenses for awards of stock-based payments based on their estimated fair value at the grant date. The Company recognizes stock-based compensation expense for all equity-based payments, including stock options. Stock-based compensation costs are calculated based on the estimated fair value of the underlying option using the Black-Scholes option-pricing model on the date of grant for stock options and are recognized as expense in the accompanying consolidated statements of operations and comprehensive loss on a straight-line basis over the requisite service period, which is typically the vesting period. Determining the appropriate fair value model and related input assumptions requires judgment, including estimating the fair value of the Company's common stock and stock price volatility.

Given the absence of a public trading market, the fair value of the Company's common stock is determined by the Company's Board of Directors (the "Board") at the time of each option grant by considering a number of objective and subjective factors. These factors include the valuation of a select group of representative public companies within the industry that focus on biotechnology that the Board believes is comparable to the Company's operations; operating and financial performance; the lack of liquidity of the common stock and trends in the broader economy and biotechnology industry also impact the determination of the fair value of the common stock.

The other inputs to the Black-Scholes option-pricing model include the following:

- The risk-free interest rate used is based on the published U.S. Department of Treasury interest rates in effect at the time of stock option grant for zero coupon U.S. Treasury notes with maturities approximating each grant's expected term;
- The dividend yield is zero as the Company has not paid dividends and does not anticipate paying a cash dividend in the foreseeable future;
- The expected term for options granted is calculated using the simplified method and represents the average time that options are expected to be outstanding based on the mid-point between the vesting date and the end of the contractual term of the award; and
- Expected volatility is derived from the historical volatilities of a select group of representative companies, for a look-back period commensurate with the expected term of the stock options, as the Company has no trading history of common stock.

The Company recognizes forfeitures related to stock-based compensation awards as they occur.

The Company classifies stock-based compensation expense in the consolidated statement of operations and comprehensive loss in the same manner in which the award recipients' payroll costs are classified or in which the award recipients' service payments are classified.

Income taxes

The Company accounts for income taxes in accordance with ASC 740, *Income Taxes* ("ASC 740"). ASC 740 requires the use of the asset and liability method of accounting for income taxes. The current or deferred tax

consequences of a transaction are measured by applying the provisions of enacted tax laws to determine the amount of taxes payable currently or in future years. Deferred tax assets and liabilities are determined based on the difference between the consolidated financial statements and tax basis of assets and liabilities and expected future tax consequences of events that have been included in the consolidated financial statements or tax returns using enacted tax rates in effect for the year in which the differences are expected to reverse. Under this method, a valuation allowance is used to offset deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets may not be realized. Management evaluates the recoverability of deferred taxes and the adequacy of the valuation allowance at each reporting period (see Note 11, *Income Taxes*).

The Company follows the provisions of ASC 740 relative to accounting for uncertain tax positions. These provisions provide guidance on the recognition, de-recognition and measurement of potential tax benefits associated with tax positions. For those benefits to be recognized, a tax position must be more likely than not to be sustained upon examination by taxing authorities. The Company had no reserves related to uncertain tax positions as of December 31, 2023 and 2022. As applicable, the Company recognizes accrued penalties and interest related to unrecognized tax benefits in the provision for income taxes. At December 31, 2023 and 2022, the Company did not accrue any potential interest or penalties.

The Company is required to file federal and state income tax returns in the U.S. and foreign income tax returns in Australia. The preparation of tax returns requires the Company to interpret the applicable tax laws and regulations in effect in such jurisdictions, which could affect the amount of tax paid by the Company.

The Company's income tax returns are based on calculations and assumptions that are subject to examination by the Internal Revenue Service and other tax authorities. In addition, the calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax regulations.

Classification of convertible preferred stock

The Company's convertible preferred stock is classified as temporary equity in the accompanying consolidated balance sheets and is excluded from stockholders' deficit as the potential redemption of such stock is outside the Company's control. The convertible preferred stock is not redeemable except for in the event of a liquidation, dissolution or winding up of the Company. Costs incurred in connection with the issuance of convertible preferred stock are recorded as a reduction of gross proceeds from issuance. The Company does not accrete the carrying values of the preferred stock to the redemption values since the occurrence of these events was not considered probable as of December 31, 2023 and 2022. Subsequent adjustments of the carrying values to the ultimate redemption values will be made only when it becomes probable that these events will occur.

Net loss per share attributable to common stockholders

The Company determined all of its convertible preferred stock qualifies as participating securities, as defined in ASC 260, *Earnings Per Share* ("ASC 260"). Under ASC 260, securities are considered participating securities if the securities may participate in undistributed earnings with common stock, whether that participation is conditioned upon the occurrence of a specified event or not. In accordance with ASC 260, a company is required to use the two-class method when computing net income (loss) per share when a company has securities that qualify as participating securities. The two-class method is an earnings allocation formula that determines net income (loss) per share for each class of common stock and participating security according to dividends declared (or accumulated) and participation rights in undistributed earnings. Diluted net income (loss) per share for the Company's common stock is computed using the more dilutive of the two-class method or the if-converted method.

Basic net income (loss) per share attributable to common stockholders is computed by dividing the net income (loss) attributable to common stockholders by the weighted average number of shares of common stock outstanding for the period. Diluted net income (loss) attributable to common stockholders is computed by adjusting net income (loss) per share attributable to common stockholders to reallocate undistributed earnings based on the potential impact of dilutive securities. Diluted net income (loss) per share attributable to common stockholders is

computed by dividing the diluted net income (loss) attributable to common stockholders by the weighted average number of shares of common stock outstanding for the period, including potential dilutive common shares. For purpose of this calculation, outstanding options to purchase common stock, unvested restricted stock awards, and shares of convertible preferred stock are considered potential dilutive common shares. The Company has generated a net loss in all periods presented, and therefore the basic and diluted net loss per share attributable to common stockholders are the same as the inclusion of the potentially dilutive securities would be anti-dilutive.

Segment information

Operating segments are defined as components of an enterprise (business activity from which it earns revenue and incurs expenses) about which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker is its Chief Executive Officer. The chief operating decision maker reviews consolidated operating results to make decisions about allocating resources and assessing performance for the entire company. The Company views its operations and manages its business as one operating segment.

Emerging growth company status

The Company is an emerging growth company ("EGC") as defined in the Jumpstart Our Business Startups Act of 2012, as amended (the "JOBS Act"), and may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not EGCs. The Company may take advantage of these exemptions until it is no longer an EGC under Section 107 of the JOBS Act and has elected to use the extended transition period for complying with new or revised accounting standards. As a result of this election, the Company's consolidated financial statements may not be comparable to companies that comply with public company FASB standards' effective dates.

Recently adopted accounting pronouncements

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments — Credit Losses (Topic 326): *Measurement of Credit Losses on Financial Instruments*, which has been subsequently amended by ASU No. 2018-19, ASU No. 2019-04, ASU No. 2019-05, ASU No. 2019-10, ASU No. 2019-11, ASU No. 2020-02, and ASU 2022-02 ("ASU 2016-1"3). The Company adopted ASU 2016-13 on January 1, 2023 using the modified retrospective approach. The Company's consolidated financial statements for prior-year periods have not been revised and are reflective of the credit loss requirements which were in effect for that period. The adoption of ASU 2016-13 did not have a material impact on the Company's consolidated financial statements and related disclosures.

Recently issued accounting standards

Accounting standards not listed below were assessed and determined not to be applicable or are expected to have minimal impact on the Company's consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, Income Taxes ("Topic 740"): *Improvements to Income Tax Disclosures*. The guidance includes the requirement that public business entities, on an annual basis, disclose specific categories in the rate reconciliation and provide additional information for reconciling items that meet a quantitative 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). It also requires that all entities disclose, on an annual basis, the amount of income taxes paid (net of refunds received) disaggregated by federal (national), state, and foreign taxes and the amount of income taxes paid (net of refunds received) disaggregated by individual jurisdictions in which income taxes paid (net of refunds received) is equal to or greater than 5% of total income taxes paid (net of refunds received) and requires that all entities disclose income (or loss) from continuing operations before income tax expense (or benefit) disaggregated between domestic and foreign and income tax expense (or benefit) from continuing operations disaggregated by federal (national), state, and foreign. Lastly, the guidance eliminates the requirement for all entities to disclose the nature and estimate of the range of the reasonably possible change in the unrecognized tax benefits balance in the

next 12 months or make a statement that an estimate of the range cannot be made. For public business entities, the guidance is effective for annual periods beginning after December 15, 2024. Early adoption is permitted for annual consolidated financial statements that have not yet been issued or made available for issuance. The guidance should be applied on a prospective basis. Retrospective application is permitted. The Company is currently evaluating the impact that this guidance may have on its consolidated financial statements.

3. Fair value measurements

The following tables present the financial instruments carried at fair value on a recurring basis as of December 31, 2023 and 2022, respectively, in accordance with the ASC 820 hierarchy (in thousands):

	Fair value measurements at December 31, 2023			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents	$ 37,074	$ —	$ —	$ 37,074

	Fair value measurements at December 31, 2022			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents	$ 82,377	$ —	$ —	$ 82,377

The Company's carrying amounts reflected in the consolidated balance sheet for prepaid expenses and other current assets, accounts payable and accrued expenses and other liabilities are shown at their historical values which approximate their fair values.

4. Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	December 31,	
	2023	2022
Variable lease expenses	$ 105	$ 16
Federal R&D tax credit receivable	442	678
Software and subscriptions	287	158
Research and development (R&D)	480	162
Other	318	206
Prepaid expenses and other current assets	$1,633	$1,219

5. Property and equipment, net

Property and equipment consisted of the following (in thousands):

	December 31,	
	2023	2022
Laboratory equipment	$ 3,322	$ 2,757
Computer and software	938	921
Furniture and fixtures	524	492
Leasehold improvements	4,518	4,518
Total property and equipment	9,302	8,687
Less: accumulated depreciation and amortization	(4,505)	(3,039)
Property and equipment, net	$ 4,797	$ 5,648

The Company incurred depreciation and amortization expense of $1.7 million and $0.9 million for the years ended December 31, 2023 and 2022, respectively. Depreciation and amortization expense for the years ended December 31, 2023 and 2022 includes $0.1 million and less than $0.1 million of finance lease right-of-use asset amortization, respectively. See additional discussion in *Note 7. Commitments and Contingencies*.

6. Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	December 31,	
	2023	2022
External research and development expenses	$ 601	$ 571
Employee compensation and benefits	1,937	1,777
Professional fees and other general and administrative expenses	475	818
Other	289	259
	$3,302	$3,425

7. Commitments and contingencies

Operating leases

The Company currently leases approximately 30,000 square feet of office space and laboratory space in Cambridge, Massachusetts and approximately 5,300 square feet of office and lab space in Boulder, Colorado. The office and laboratory space lease in Cambridge, Massachusetts expires on June 30, 2027. The lease provides a lease incentive in the form of reimbursable leasehold improvements of up to $3.6 million. As of December 31, 2023, the Company had capitalized $4.5 million of leasehold improvement costs to date under this lease, of which $3.6 million was reimbursed through the lease incentive. During the years ended December 2023 and 2022, the Company received $2.7 million and $0.9 million, respectively, as reimbursements of improvement costs. Amounts received for lease incentives are included in the changes in operating lease assets and liabilities line in the consolidated statement of cash flows. As of December 31, 2023, this operating lease accounted for $6.4 million of operating lease right-of-use assets, $2.5 million of current operating lease liabilities and $7.4 million of non-current operating lease liabilities.

In September 2023, the Company leased certain office and laboratory space under an operating lease in Boulder, Colorado for approximately 5,300 square feet of space. The five-year lease commenced on September 1, 2023. The office and laboratory space in Boulder, Colorado expires on September 30, 2028. As the rate implicit in this lease agreement was not readily determinable, the Company used its incremental borrowing rate of 7.12% as of the commencement date of the lease. At commencement of the lease, the Company recorded $1.4 million of operating right-of-use assets, $0.2 million of current operating lease liabilities and $1.2 million of non-current operating lease liabilities As of December 31, 2023, this operating lease accounted for $1.3 million of operating lease right-of-use assets, $0.2 million of current operating lease liabilities and $1.1 million of non-current operating lease liabilities.

The table below summarizes the Company's operating lease costs for the years ended December 31, 2023 and 2022 (in thousands except for lease terms and borrowing rates):

	Year ended December 31,	
	2023	2022
Lease cost		
Operating lease cost	$ 2,489	$ 2,629
Short-term lease cost	119	46
Variable lease expense	1,213	1,018
Total lease cost	$ 3,821	$ 3,693
Other information		
Cash paid for amounts included in the measurement of lease liabilities, included in operating cash flows	$ 601	$ 1,972
Weighted-average remaining lease term	3.7	4.5
Weighted-average incremental borrowing rate	6.72%	6.66%

Maturities of lease liabilities as of December 31, 2023 were as follows (in thousands):

Year ending December 31,	
2024	$ 3,356
2025	3,455
2026	3,558
2027	1,980
2028	263
Total lease payment	12,612
Less: amount representing imputed interest	(1,421)
Total future minimum lease obligations	$11,191

Finance leases

The Company leases certain specialized lab equipment under several finance lease agreements with maturities ranging from November 2024 to November 2028. As of December 31, 2023, these finance leases account for $0.7 million of finance lease right-of-use assets, $0.4 million of current finance lease liabilities and $0.1 million of non-current finance lease liabilities.

The table below summarizes the Company's finance lease costs for the years ended December 31, 2023 and 2022 (in thousands except for lease terms and borrowing rates):

		Year ended December 31,	
	Classification	2023	2022
Finance lease cost			
Amortization of right-of-use assets	Depreciation and amortization	$ 146	$ 69
Interest on lease liabilities	Other Expense	33	12
Total finance lease cost		$ 179	$ 81
Other information			
Cash paid for amounts included in the measurement of lease liabilities, included in operating cash flows		$ 322	$ 94
Weighted-average remaining lease term		1.8	2.0
Weighted-average incremental borrowing rate		8.14%	6.62%

Maturities of finance lease liabilities as of December 31, 2023 were as follows (in thousands):

Year ending December 31,	
2024	$381
2025	98
2026	31
2027	31
Total lease payment	541
Less: amount representing imputed interest	(39)
Total future minimum lease obligations	$502

Financing obligation

In April 2023, the Company (seller-lessee) sold certain laboratory equipment to an unrelated third-party (buyer-lessor) and simultaneously entered into a 26-month lease agreement for the laboratory equipment with the buyer-lessor through June 2025. The lease requires monthly payments of less than $0.1 million and provides a fixed price repurchase option at the end of the lease term of $0.1 million.

The repurchase option precludes accounting for the transfer of the asset to the buyer-lessor as a sale under ASC 842 since the exercise price of the repurchase option is fixed and, therefore, is not the fair value of the asset on the exercise date of the option. Thus, the agreement is considered a financing transaction (i.e., failed sale-leaseback) as the Company is reasonably certain to exercise the repurchase option at the end of the lease. The net proceeds received amounted to $0.7 million, which is recorded as a financing liability in the Company's consolidated balance sheet. The Company imputes interest at a rate of 0.86% on a monthly basis. For the year ended December 31, 2023, the Company recorded less than $0.1 million of interest expense related to this financing transaction in other expense in the consolidated statement of operations and comprehensive loss.

Legal proceedings

A liability for loss contingencies arising from claims, assessments, litigation, fines, penalties and other sources is recorded in the consolidated financial statements if it is determined that it is probable that a loss has been incurred and the amount (or range) of the loss can be reasonably estimated. There are no matters currently outstanding for which any liabilities have been accrued or require disclosure.

8. Collaboration and license agreements

In-license agreements

Children's Medical Center Corporation

In April 2018, the Company entered into a development and license agreement (the "CMCC Agreement") with Children's Medical Center Corporation ("CMCC"). The agreement allows the Company to use CMCC's proprietary intellectual property to conduct research, development and commercialization of products utilizing CMCC's proprietary intellectual property in return for specified payments. The proprietary intellectual property licensed pursuant to this agreement is related to certain legacy programs the Company is not pursuing and was subsequently sublicensed to Fulcrum Therapeutics, Inc. ("Fulcrum"), as described below. As part of the agreement, the Company issued a total of 169,624 shares of common stock to CMCC and its affiliates based on the fair value of the common stock on the date of issuance.

The Company is obligated to pay potential development milestone payments under the terms of the CMCC Agreement of up to $7.7 million for the first licensed target, $3.9 million for the second licensed target and $1.9 million for the third licensed target upon the achievement of certain specified contingent events. If commercial sales of a licensed product commence, the Company will pay CMCC royalties at percentage rates ranging in the

low- to mid-single digits on net sales of licensed products in countries where such product is protected by patent rights. The Company incurred $0.03 million of royalties owed to CMCC in both 2023 and 2022 under the agreement and recorded the amounts in R&D expense in the consolidated statement of operations and comprehensive loss. Further, under the terms of the CMCC Agreement, the Company is required to pay 10% of any upfront payment received under a sublicensing agreement entered into prior to the initiation of the first investigational new drug study. As such, the Company recorded $0.04 million of sublicense costs for the year ended December 31, 2023, which is presented in R&D expenses on the consolidated statements of operations and comprehensive loss. The Company re-evaluates the likelihood of achieving future milestones at the end of each reporting period. As of December 31, 2023, the Company determined that the likelihood of achieving future milestones was not probable.

Whitehead Institute for Biomedical Research

In October 2019, the Company entered into a patent license agreement with the Whitehead Institute for Biomedical Research, or the Whitehead Institute, which was subsequently amended on December 14, 2021, or the Whitehead First Amendment, and on November 7, 2023, or the Whitehead Second Amendment. Under the agreement, the Company was granted a worldwide, royalty-bearing, sublicensable license under certain patent rights owned or controlled by the Whitehead Institute. As part of the agreement, the Company paid an initial $0.1 million license issuance fee, and the Company is obligated to pay annual license maintenance fees of up to $0.07 million for the term of the agreement. In addition, with each of the Whitehead First Amendment and Whitehead Second Amendment, the Company paid the Whitehead Institute license amendment issuance fees of $0.02 million. The Company is obligated to pay potential development milestone payments under the terms of the agreement upon the achievement of certain specified contingent events. The Company is also obligated to pay tiered royalties at percentage rates ranging from less than one percent to the mid-single digits of net sales or of running royalties of net sales, subject to specified reductions, upon the achievement of certain contingent events. The Company incurred $0.06 million and $0.04 million of license maintenance fees and $0.02 million and $0 of license amendment issuance fees owed to the Whitehead Institute in 2023 and 2022, respectively, under the amended agreement and recorded the amounts in our research and development expense in our consolidated statement of operations and comprehensive loss.

Sublicense agreement

Fulcrum Therapeutics, Inc.

In July 2023, the Company entered into a license agreement (the “Fulcrum Agreement”) with Fulcrum. Under the Fulcrum Agreement, the Company granted an exclusive license related to the Company’s intellectual property (“IP”) and granted a sublicense for IP obtained through the CMCC Agreement. In exchange for the license rights, Fulcrum paid the Company a $0.35 million upfront payment. In the event that Fulcrum achieves certain development and commercial milestones, Fulcrum will be obligated to pay the Company one-time milestone payments ranging from $1.0 million to $20.0 million (with respect to a Tier 1 Product, as defined in the Fulcrum Agreement) or $0.6 million to $12.0 million (with respect to a Tier 2 Product, as defined in the Agreement), depending on the milestone achieved. In addition, the Fulcrum Agreement includes both potential nominal minimum annual royalty payments as well as sales-based royalties upon commercialization of up to the low-double digits.

The Company assessed this arrangement in accordance with ASC 606 and concluded that the contract counterparty, Fulcrum, is a customer. In accordance with ASC 606, the Company determined that there is one performance obligation in the Fulcrum Agreement, consisting of the exclusive and non-exclusive license rights to Fulcrum. The transaction price was comprised of the fixed consideration of $0.35 million and was recognized upon transfer of control of the licenses at a point in time upon contract execution. The arrangement includes significant variable consideration primarily in the form of milestone payments, which is fully constrained at the inception of the contract. All variable consideration is remeasured at each financial reporting date. At December 31, 2023, the Company determined the variable consideration was fully constrained. The related constraint on each element of variable consideration is reassessed each reporting period.

The sales-based royalty fee is considered variable consideration and will be recognized as revenue as such sales occur. The sales-based royalty fee qualifies for the royalty constraint exception and does not require an estimate of the future transaction price.

During the year ended December 31, 2023, the Company recorded $0.35 million in license revenue pursuant to the Fulcrum Agreement.

Collaborative arrangement

Eli Lilly and Company

In July 2023, the Company executed a Material Transfer Agreement ("MTA") with Eli Lilly and Company ("Eli Lilly"). As part of the MTA, the Company and Eli Lilly agreed to perform research and development activities to generate up to three antisense oligonucleotides ("ASOs") in accordance with a prescribed workplan. For the year ended December 31, 2023, the Company received $0.4 million from Eli Lilly related to the MTA. The Company evaluated the MTA under ASC 808 and concluded that it is a collaboration arrangement. The Company and Eli Lilly are jointly overseeing the research and development activities under the MTA and are active participants in the research and development activities. In addition, both parties are exposed to the significant risks and potential rewards under the MTA. During the year ended December 31, 2023, the Company recorded $0.5 million as a reduction in R&D expense in the consolidated statement of operations and comprehensive loss. Additionally, the Company had an unbilled receivable of $0.1 million recorded within prepaid expenses and other current assets on the consolidated balance sheet as of December 31, 2023.

9. Convertible preferred stock and stockholders' deficit

Convertible preferred stock

As of December 31, 2023 and 2022, the Company's Series A Prime convertible preferred stock and Series B convertible preferred stock have been classified as temporary equity in the accompanying consolidated balance sheets.

Convertible preferred stock consisted of the following as of December 31, 2023 and 2022 (in thousands, except share amounts):

	Authorized shares	Shares issued and outstanding	Liquidation Value	Common stock issuable upon conversion
Series A Prime	68,173,692	62,389,791	$ 62,381	62,389,791
Series B	81,499,592	68,258,635	$ 100,504	68,258,635

Series B Convertible Preferred Stock

In 2022, the Company entered into a securities purchase agreement (the "Series B Agreement") to sell shares of Series B convertible preferred stock (the "Series B Preferred Stock") at $1.4724 per share. From June through July 2022, the Company issued 68,258,635 shares of Series B convertible preferred stock to existing and new investors for gross cash proceeds of $100.5 million, less issuance costs of $0.3 million, resulting in net proceeds of $100.2 million.

Rights, preferences, privileges and restrictions

Voting rights

Each preferred stockholder is 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 at the time of such

vote**.** All preferred stockholders are entitled to vote on all matters upon which holders of common stock have the right to vote, other than matters that must by law be voted by class or series vote.

Conversion rights

Each share of convertible preferred stock is convertible at the option of the holder at any time into a share of common stock. Each share of convertible preferred stock is convertible into that number of common shares as is determined by dividing the applicable initial purchase price) of such share by the applicable conversion price. The conversion rate is subject to adjustment upon the occurrence of certain events, including diluting issues of shares, stock splits, stock combinations, certain dividends and distributions, a merger and a reorganization.

All shares of the convertible preferred stock are automatically convertible into shares of common stock, in a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of common stock for the account of the Company which results in at least $75.0 million of gross proceeds to the Company.

Dividend rights

Preferred stockholders are entitled to receive, when and as declared by the Board of Directors, preferential non-cumulative cash dividends at a rate of 6% per annum of the original issue price per share. Such dividends are payable only when and if declared by the Company's board of directors. No such dividends have been declared or paid through December 31, 2023.

Liquidation preference

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, the holders of shares of the preferred stock shall be paid an amount per share first out of the assets and legally available funds of the Company available for distribution to holders of the Company's capital stock of all classes, an amount equal to the greater of the original issue price, plus all declared dividends accrued but unpaid with respect to each such shares, as adjusted for any stock dividend, stock split, recapitalization, or other similar event. After payment of all preferential amounts to the holders of preferred shares, any assets and funds of the Company that remain available for distribution shall be distributed ratably among the holders of the common stock.

Redemption rights

The holders of the shares of the Preferred Stock may redeem their shares for the original issue price per share and any declared dividends upon a Deemed Liquidation Event, as defined per the terms of the applicable preferred stock agreement.

Common stock

The Company is authorized to issue up to 210,000,000 shares of common stock at December 31, 2023 and 2022, respectively, of which 11,509,269 and 11,559,826 shares were issued at December 31, 2023 and 2022, respectively; 5,168,193 and 4,002,103 shares were outstanding as of December 31, 2023 and 2022, respectively.

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 convertible preferred stock.

Voting

Each holder of outstanding shares of common stock is entitled to one vote in respect of each share. The holders of outstanding shares of common stock, voting together as a single class, are entitled to elect one director. The number of authorized shares of common stock may be increased or decreased by the affirmative vote of a majority of the outstanding shares of common stock and preferred stock voting together as a single class.

Dividends

Subject to the payment in full of all preferential dividends to which the holders of the preferred stock are entitled, the holders of common stock are entitled to receive dividends out of funds legally available therefor at such times and in such amounts as the board of directors may determine in its sole discretion, with holders of preferred stock and common stock sharing pari passu in such dividends.

Liquidation rights

After payment in full of all preferential amounts to which the holders of preferred stock are entitled upon any voluntary or involuntary liquidation, dissolution or winding-up of the Company or deemed liquidation event of the Company, all of the remaining assets of the Company available for distribution to the stockholders shall be distributed among the holders of the preferred stock and common stock, pro rata based on the number of shares held by each such holder on an as converted to common stock basis.

Reserved shares

As of December 31, 2023, the Company reserved the following shares of common stock for issuance upon conversion of the outstanding convertible preferred stock and exercise of stock options:

	December 31, 2023
Conversion of convertible preferred stock	130,648,426
Stock options available for issuance	13,195,448
Stock options outstanding	25,514,335
Warrants	1,602
Restricted stock vesting	832,840
Total	170,192,651

10. Stock-based compensation

In 2016, the Company adopted the Marauder Therapeutics, Inc. 2016 Stock Option and Grant Plan (the “Plan”). All of the Company’s employees, officers, directors, consultants and advisors are eligible to be granted options, restricted stock units and other stock-based awards under the terms of the Plan. When the Plan was initially established, it provided for the grant of 212,030 shares of common stock. During 2018, the Board of Directors approved an increase to 15,884,027 shares of common stock available under the Plan. During 2021, the Board of Directors approved an increase to 17,070,142 shares of common stock available under the Plan. During 2022, the Board of Directors approved another increase to 42,656,671 shares of common stock available under the Plan. During the year ended December 31, 2023, there were 13,195,448 shares of common stock remaining and available for issuance under the 2016 Plan.

The Company may grant options to purchase authorized but unissued shares of the Company’s common stock. Options granted under the 2016 Plan include incentive stock options that can be granted only to the Company’s employees and non-statutory stock options that can be granted to the Company’s employees, consultants, advisors and directors.

The exercise prices, vesting and other restrictions of the awards to be granted under the 2016 Plan is determined by the board of directors, except that no stock option may be issued with an exercise price less than the fair market value of the common stock at the date of the grant or have a term in excess of ten years. Options granted under the 2016 Plan are exercisable in whole or in part at any time subsequent to vesting, which is typically over a four-year period.

Stock options

The Company estimated the fair value of stock options using the Black-Scholes valuation model. The weighted-average assumptions used in the Black-Scholes option pricing model to determine the fair value of the stock options granted were as follows:

	Year ended December 31,	
	2023	2022
Expected volatility	92.24%	84.73%
Risk-free interest rate	3.84%	3.45%
Expected dividend yield	0%	0%
Expected term (in years)	5.97	5.92

The weighted average fair value of stock options granted during the years ended December 31, 2023 and 2022 as determined by the Black-Scholes option pricing model was $0.60 and $0.51 per share, respectively. The total intrinsic value of options exercised during the years ended December 31, 2023 and 2022 was $203 and $52, respectively.

The Company issued $1.0 million of promissory notes to certain executives during the year ended December 31, 2021 in order for them to early exercise stock options. Management concluded the promissory notes are recourse in form but non-recourse in substance as the Company does not intend to seek repayment beyond the shares issued. The promissory notes are therefore treated as an option for accounting purposes and are not recorded on the consolidated balance sheet. Stock-based compensation expense is recorded, accordingly. The exercise price used in determining the fair value of the stock options includes the interest earned on the notes and the expected term is five years, reflecting the term of the notes. The early exercised shares are not outstanding for accounting purposes before repayment of the notes.

The following table summarizes stock option activity for the year ended December 31, 2023 (in thousands, except share and per share amounts):

	Number of outstanding options	Weighted average exercise price	Weighted average remaining contractual term	Aggregate intrinsic value
			(Years)	
Balance at December 31, 2022	27,496,583	$ 0.58	9.19	6,140
Granted	2,144,445	$ 0.78		
Forfeited	(3,643,993)	$ 0.60		203
Exercises	(482,700)	$ 0.38		
Balance at December 31, 2023	25,514,335	$ 0.54	8.05	$ 6,893
Vested and expected to vest at December 31, 2022	25,514,335	$ 0.54	8.05	$ 6,893
Exercisable at December 31, 2023	11,717,871	$ 0.41	7.33	$ 4,678

The Company has recorded stock-based compensation expense related to stock options of $2.8 million and $1.2 million for the years ended December 31, 2023 and 2022, respectively. The Company has an aggregate $6.4 million of gross unrecognized stock-based compensation expense as of December 31, 2023 remaining to be recognized over a weighted average period of 2.6 years.

A summary of restricted stock award activity for the year ended December 31, 2023 is a follows:

	Number of shares	Weighted average fair value
Unvested at December 31, 2022	1,516,230	$ 0.20
Granted	—	—
Vested	(683,390)	0.22
Forfeited	—	—
Balance at December 31, 2023	832,840	$ 0.18

All restricted common stock awards were initially issued at a price determined to be fair value on the date of grant. The Company recognizes forfeitures of restricted common stock as they occur. As of December 31, 2023, total unrecognized stock-based compensation expense relating to unvested restricted common stock was $0.2 million. This amount is expected to be recognized over a weighted average period of 1.3 years. The fair value of shares that vested during the years ended December 31, 2023 and 2022 was $0.5 million and $0.5 million, respectively.

Stock-based compensation expense related to stock options and restricted stock recorded in the accompanying consolidated statements of operations is as follows (in thousands):

	Year ended December 31,	
	2023	2022
Research and development	$ 1,555	$ 676
General and administrative	1,352	701
	$ 2,907	$ 1,377

The Company has not recognized and does not expect to recognize in the near future, any tax benefit related to employee stock-based compensation expense as a result of the full valuation allowance related to its net deferred tax assets.

11. Income taxes

A reconciliation of the expected income tax benefit computed using the federal statutory income tax rate to the Company's effective income tax rate is as follows for the years ended December 31, 2023 and 2022:

	Year ended December 31,	
	2023	2022
Income tax computed at federal statutory rate	21.00%	21.00%
State taxes, net of federal benefit	7.49	6.72
Foreign rate differential	0.04	—
Research and development credit	4.03	3.08
Valuation allowance	(31.99)	(30.30)
Permanent differences	(0.57)	(0.50)
Effective income tax rate	(0.00)%	(0.00)%

The Company's deferred tax assets at December 31, 2023 and 2022, consisted of the following (in thousands):

	Year ended December 31,	
	2023	2022
Deferred tax assets:		
Net operating losses	$ 18,936	$ 15,927
R&D credit	7,239	4,555
Capitalized Sec. 59 (e) R&D expenditures	2,337	2,822
Operating lease liabilities	3,052	3,353
Capitalized research and development costs	17,413	8,281
Other	2,735	1,930
Total gross deferred tax assets	51,712	36,868
Deferred tax liabilities:		
Operating lease right-of-use assets	(2,118)	(3,025)
Other	—	(19)
Total gross deferred tax liabilities	(2,118	(3,044)
Net deferred tax assets	49,594	33,824
Valuation allowance	(49,594)	(33,824)
Net deferred tax asset	$ —	$ —

As of December 31, 2023 and 2022, the Company had a federal net operating loss carryforward of $69.8 million and $58.8 million, respectively, which may be available to offset future income tax liabilities. Of the $69.8 million of federal net operating loss carryforwards, approximately $4.8 million will begin to expire in 2036 and approximately $64.9 million are carried forward indefinitely. As of December 31, 2023 and 2022, the Company had state net operating loss ("NOL") carryforwards of $66.7 million and $56.7 million, respectively, which will begin to expire in 2036.

As of December 31, 2023 and 2022, the Company had federal research and development tax credit carryforwards of $5.2 million and $3.2 million, respectively, which begin to expire in 2036. As of December 31, 2023 and 2022, the Company had state research and development tax credit carryforwards of $2.6 million and $1.7 million, respectively, which begin to expire in 2032. As of December 31, 2023 and 2022, the Company had capitalized research and development costs of $17.4 million and $8.3 million, respectively, as required by the Tax Cuts and Jobs Act of 2017.

Future realization of the tax benefits of existing temporary differences and NOL carryforwards ultimately depends on the existence of sufficient taxable income within the carryforward period. As of December 31, 2023, the Company performed an evaluation to determine whether a valuation allowance was needed. The Company considered all available evidence, both positive and negative, which included the results of operations for the current and preceding years. The Company determined that it is more likely than not that all of the deferred tax assets will not be realized. Accordingly, the Company maintained a full valuation allowance as of December 31, 2023. The valuation allowance increased in fiscal years 2023 and 2022 by $15.8 million and $13.4 million, respectively, due to the increase in the deferred tax assets by the same amount, primarily due to NOL carryforwards and capitalized research and development costs.

The utilization of NOLs and tax credit carryforwards to offset future taxable income may be subject to an annual limitation as a result of ownership changes that have occurred previously or may occur in the future. Under Sections 382 and 383 of the Internal Revenue Code of 1986 ("IRC"), a corporation that undergoes an ownership change may be subject to limitation on its ability to utilize its pre-change NOLs and other tax attributes otherwise available to offset future taxable income and / or tax liability. An ownership change is defined as a cumulative change of more than 50% in the ownership positions of certain stockholders during a rolling three- year period.

The Company has not completed a formal study to determine if any ownership changes within the meaning of IRC Section 382 and 383 have occurred as of December 31, 2023. An ownership change would restrict its ability to use its NOLs or tax credit carryforwards and could require the Company to pay federal or state income taxes earlier than would be required if such limitation were not in effect.

For the year ended December 31, 2023, the Company generated research credits but has not conducted a study to document the qualified activities. This study may result in an adjustment to the Company's research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amounts have been recognized as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits and, if an adjustment is required, this adjustment would be offset by an adjustment to the deferred income tax asset established for the research and development credit carryforwards and the valuation allowance.

12. Net loss per share attributable to common stockholders

Basic and diluted net loss per share was calculated as follows (in thousands, except share and per share amounts):

	Year ended December 31,	
	2023	2022
Numerator:		
Net loss attributable to common stockholders	$ (49,291)	$ (44,192)
Denominator:		
Weighted-average common shares outstanding, basic and diluted	4,429,564	3,503,242
Net loss per share attributable to common stockholders, basic and diluted	$ (11.13)	$ (12.61)

The Company's potentially dilutive securities, which include convertible preferred stock, outstanding stock options, unvested restricted common stock, and convertible preferred stock warrants, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. 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 Company excluded the following from the computation of diluted net loss per share attributable to common stockholders at December 31, 2023 and 2022 because including them would have had an anti-dilutive effect:

	Years ended December 31,	
	2023	2022
Conversion of preferred stock	130,648,426	130,648,426
Stock options outstanding	25,514,335	27,496,583
Conversion of preferred stock warrant	1,602	1,602
Unvested restricted common stock	832,840	1,516,230
	156,997,203	159,662,841

13. Employee benefit plan

On January 1, 2017, the Company's board of directors approved the Company's 401(k) retirement plan (the "401(k) Plan"). Employees of the Company are eligible to participate in the 401(k) Plan. Participants may contribute up to 100% of their annual compensation to the 401(k) Plan, subject to statutory limitations. Effective January 1, 2022, under the 401(k) Plan "Safe Harbor Match", the Company matches one hundred percent (100%) of the first three percent (3%) of employee contributions and these contributions vest in full at the time of match.

For the year ended December 31, 2023 and 2022, the Company made matching contributions of $0.4 million and $0.3 million, respectively.

14. Related parties

In September 2015, the Company entered into consulting agreements with its two founders, related parties who hold shares of the Company's common stock, to provide R&D and strategic planning services. For the years ended December 31, 2023 and 2022, the Company recognized R&D expense totaling $0.3 million and $0.3 million, respectively, related to work performed under the founder agreements. The Company had no amounts due to the founders at both December 31, 2023 and 2022, respectively. For the years ended December 31, 2023 and 2022, the Company recognized stock-based compensation expense totaling $0.2 million and less than $0.1 million, related to the consulting agreements, respectively.

In March 2019, the Company entered into a consulting agreement with an executive consultant, a related party who holds shares of the Company's common stock. For the years ended December 31, 2023 and 2022, the Company recognized G&A expense totaling $0.1 million and $0.1 million, respectively, related to work performed under the consulting agreement. The Company had no amounts due to the consultant at both December 31, 2023 and 2022, respectively. For the years ended December 31, 2023 and 2022, the Company recognized stock-based compensation expense totaling $0.2 million and less than $0.1 million, respectively, related to the consulting agreement.

15. Subsequent events

The Company evaluated subsequent events through June 14, 2024, the date on which the December 31, 2023 consolidated financial statements were issued. No subsequent events requiring disclosure were identified.

CAMP4 Therapeutics Corporation
Condensed consolidated balance sheets
(In thousands, except share and per share amounts)

	As of June 30, 2024	As of December 31, 2023
	(Unaudited)	
Current assets:		
Cash and cash equivalents	$ 12,607	$ 38,380
Prepaid expenses and other current assets	2,179	1,633
Total current assets	14,786	40,013
Restricted cash	1,624	1,624
Deferred offering costs	1,754	—
Property and equipment, net	4,201	4,797
Operating lease right-of-use assets, net	6,928	7,764
Finance lease right-of-use assets, net	651	748
Total assets	$ 29,944	$ 54,946
Current liabilities:		
Accounts payable	$ 1,461	$ 1,042
Accrued expenses	2,930	3,302
Operating lease liabilities, current portion	2,846	2,704
Finance lease liabilities, current portion	255	354
Financing liability, current portion	293	405
Total current liabilities	7,785	7,807
Long-term liabilities:		
Operating lease liabilities, net of current portion	7,039	8,487
Finance lease liabilities, net of current portion	85	148
Financing liability, net of current portion	—	85
Other long-term liabilities	2	2
Total liabilities	14,911	16,529
Commitments and contingencies (Note 7)		
Convertible preferred stock, $0.0001 par value; 149,673,284 shares authorized as of June 30, 2024 and December 31, 2023; 130,648,426 shares issued and outstanding as of June 30, 2024 and December 31, 2023; liquidation preference of $162,885 as of June 30, 2024 and December 31, 2023	162,147	162,147
Stockholders' deficit:		
Common stock, $0.0001 par, 210,000,000 shares authorized as of June 30, 2024 and December 31, 2023, 11,521,191 and 11,509,269 shares issued, 5,506,768 and 5,168,193 shares outstanding as of June 30, 2024 and December 31, 2023, respectively	1	1
Additional paid-in capital	37,875	36,231
Accumulated deficit	(184,990)	(159,962)
Total stockholders' deficit	(147,114)	(123,730)
Total liabilities, convertible preferred stock, and stockholders' deficit	$ 29,944	$ 54,946

The accompanying notes are an integral part of these condensed consolidated financial statements.

CAMP4 Therapeutics Corporation
Unaudited condensed consolidated statements of operations and comprehensive loss
(In thousands, except for share and per share data)

	Six Months ended June 30,	
	2024	2023
Operating Expenses:		
Research and development	$ 19,129	$ 20,136
General and administrative	6,408	5,930
Total operating expenses	25,537	26,066
Loss from operations	(25,537)	(26,066)
Other income (expense), net:		
Interest income	626	1,550
Other expense	(117)	(90)
Total other income (expense), net	509	1,460
Net loss attributable to common stockholders and comprehensive loss	$ (25,028)	$ (24,606)
Net loss per share attributable to common stockholders, basic and diluted	$ (4.69)	$ (5.85)
Weighted-average shares of common stock outstanding, basic and diluted	5,341,728	4,208,243

The accompanying notes are an integral part of these condensed consolidated financial statements.

CAMP4 Therapeutics Corporation
Unaudited condensed consolidated statements of convertible preferred stock and stockholders' deficit
(In thousands, except share amounts)

	Convertible preferred stock		Common stock		Additional paid-in capital	Accumulated deficit	Total stockholders' deficit
	Shares	Amount	Shares	Amount			
Balance at December 31, 2022	130,648,426	$ 162,147	4,002,103	$ 1	$ 33,139	(110,671)	$ (77,531)
Issuance of common stock	—	—	51,320	—	11	—	11
Vesting of restricted common stock	—	—	352,796	—	—	—	—
Stock-based compensation expense	—	—	—	—	1,549	—	1,549
Net loss	—	—	—	—	—	(24,606)	(24,606)
Balance at June 30, 2023	130,648,426	$ 162,147	4,406,219	$ 1	34,699	(135,277)	(100,577)
Balance at December 31, 2023	130,648,426	$ 162,147	5,168,193	$ 1	$ 36,231	$ (159,962)	$ (123,730)
Issuance of common stock	—	—	11,922	—	2	—	2
Vesting of restricted common stock	—	—	326,653	—	—	—	—
Stock-based compensation expense	—	—	—	—	1,642	—	1,642
Net loss	—	—	—	—	—	(25,028)	(25,028)
Balance at June 30, 2024	130,648,426	$ 162,147	5,506,768	$ 1	$ 37,875	$ (184,990)	$ (147,114)

The accompanying notes are an integral part of these condensed consolidated financial statements.

CAMP4 Therapeutics Corporation
Unaudited condensed consolidated statements of cash flows
(In thousands)

	Six Months ended June 30,	
	2024	2023
Operating activities		
Net loss	$ (25,028)	$ (24,606)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	860	813
Stock-based compensation expense	1,642	1,549
Non-cash lease expense	835	940
Non-cash interest expense	49	29
Change in operating assets and liabilities:		
Prepaid expenses and other current assets	(546)	(1,209)
Accounts payable	(59)	(1,416)
Accrued expenses and other liabilities	(1,028)	(845)
Operating lease assets and liabilities	(1,307)	(1,073)
Net cash used in operating activities	(24,581)	(25,818)
Investing activities		
Purchases of property and equipment	(178)	(228)
Net cash used in financing activities	(178)	(228)
Financing activities		
Proceeds from issuance of common stock	2	11
Proceeds from financing obligation, net of transaction costs	—	706
Principal payments on financing obligation	(230)	(38)
Principal payments on finance leases	(178)	(112)
Payments of deferred offering costs	(608)	—
Net cash (used in) provided by financing activities	(1,014)	567
Net decrease in cash, cash equivalents and restricted cash	(25,773)	(25,479)
Cash, cash equivalents and restricted cash – beginning of year	40,004	84,536
Cash, cash equivalents and restricted cash – end of period	$ 14,231	$ 59,057
Supplemental disclosure of cash flow information:		
Finance lease right-of-use asset obtained in exchange for lease liabilities	$ —	$ 368
Deferred offering costs in accounts payable and accrued expenses	$ 1,147	$ —
Purchase of property and equipment in accounts payable and accrued expenses	$ —	$ 10

The accompanying notes are an integral part of these condensed consolidated financial statements.

CAMP4 Therapeutics Corporation
Notes to unaudited condensed consolidated financial statements

1. Description of business and basis of presentation

Description of business

CAMP4 Therapeutics Corporation, formerly Marauder Therapeutics, Inc., and its subsidiary (collectively, the "Company"), is a clinical-stage biopharmaceutical company pioneering the discovery and development of regulatory RNA-based therapeutics with the goal of upregulating gene expression and restoring healthy protein levels to treat a broad range of genetic diseases. The Company is initially focusing on genetic diseases of the central nervous system and liver. The Company was organized in September 2015 and began operations in 2016.

Basis of presentation and principles of consolidation

The accompanying consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("US GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative standards of US GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASU") of the Financial Accounting Standards Board ("FASB").

The Company's consolidated financial statements include the accounts of CAMP4 Therapeutics Corporation and its wholly owned subsidiary, CAMP4 Therapeutics Pty Ltd ("CAMP4 AUS"), which was established on September 15, 2023. All intercompany balances and transactions have been eliminated in consolidation.

Unaudited interim financial information

The condensed consolidated balance sheet as of June 30, 2024, the condensed consolidated statements of operations and comprehensive loss for the six months ended June 30, 2024 and 2023, the condensed consolidated statements of convertible preferred stock and stockholders' deficit for the six months ended June 30, 2024 and 2023, and the condensed consolidated statements of cash flows for the six months ended June 30, 2024 and 2023 are unaudited. These unaudited condensed consolidated financial statements have been prepared on the same basis as the annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to present fairly the Company's consolidated financial position, consolidated results of operations, and consolidated cash flows for the interim periods presented. The financial data and the other financial information contained in these notes to the condensed consolidated financial statements for the six months ended June 30, 2024 and 2023 are also unaudited. The results of operations for the six months ended June 30, 2024 are not necessarily indicative of the results to be expected for the year ending December 31, 2024 or for any other future annual or interim period.

The condensed consolidated balance sheet as of December 31, 2023 included herein was derived from the audited consolidated financial statements as of that date which are included elsewhere in this Registration Statement. These unaudited condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements for the year ended December 31, 2023.

Liquidity and going concern

As of June 30, 2024, the Company had approximately $12.6 million of unrestricted cash and cash equivalents and working capital of approximately $8.6 million. The Company has a relatively limited operating history, and the revenue and income potential of the Company's business and market are unproven. The Company has experienced net losses and negative cash flows from operations since its inception and, as of June 30, 2024, the Company had an accumulated deficit of $185.0 million. During the six months ended June 30, 2024, the Company incurred a net loss of $25.0 million and had negative cash flows from operations of $25.8 million. The Company will continue to incur significant costs and expenses related to its ongoing operations until it successfully develops,

obtains regulatory approval for and gains market acceptance of a product candidate and achieves revenues adequate to support the Company's operations.

From inception to June 30, 2024, the Company has funded its operations primarily through the issuance of convertible preferred stock and revenues from its license and collaboration agreements. The Company's current capital resources, which consist of cash and cash equivalents, will not be sufficient to fund operations through at least the next twelve months from the date the accompanying condensed consolidated financial statements are issued based on its current operating plan. As the Company continues to pursue its business plan, it expects to finance its operations through potential public or private equity offerings, debt financings or other capital sources, including current or potential future collaborations, licenses and other similar arrangements. However, there can be no assurance that any additional financing or strategic arrangements will be available to the Company on acceptable terms, if at all. If events or circumstances occur such that the Company does not obtain additional funding, it may be necessary to significantly reduce its scope of operations to reduce the current rate of spending through actions such as reductions in staff and the need to delay, limit, reduce or terminate product development or future commercialization efforts or grant rights to develop and market product candidates that it would otherwise prefer to develop and market itself, which could have a material adverse effect on the Company's business, results of operations or financial condition.

The accompanying condensed consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and satisfaction of liabilities in the ordinary course of business. The financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

2. Summary of significant accounting policies

Use of estimates

The preparation of condensed consolidated financial statements in conformity with US GAAP requires management to make estimates assumptions, and judgments that affect the reported amounts of assets, liabilities, expenses and related disclosures in the accompanying notes. The Company bases its estimates, assumptions and judgments on historical experience when available and on various factors that it believes to be reasonable under the circumstances as of the date of the accompanying condensed consolidated financial statements, including the fair value of common stock, stock-based compensation expense, accrued expenses, lease accounting and the recoverability of the Company's net deferred tax assets and related valuation allowance. In addition, other factors may affect estimates, including the expected business and operational changes, the sensitivity and volatility associated with the assumptions used in developing estimates, and whether historical trends are expected to be representative of future trends. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes, and management must select an amount that falls within that range of reasonable estimates. Actual results could differ materially from the estimates and assumptions used in the preparation of the accompanying condensed consolidated financial statements under different assumptions or conditions.

Cash and cash equivalents

The Company considers all highly liquid investments and instruments with original maturities of 90 days or less that can be liquidated without prior notice or penalty to be cash equivalents. Cash equivalents primarily represent funds invested in readily available money market accounts. As of June 30, 2024 and December 31, 2023, the Company had cash and cash equivalents balances deposited at one major financial institution.

Restricted cash

In connection with its operating leases, the Company is required to maintain security deposits totaling $1.5 million, which were issued in the form of letters of credit with a bank. As of June 30, 2024 and December 31, 2023, the

Company held cash in this amount in separate restricted bank accounts as collateral for the letters of credit. The restricted cash balance is classified as long-term restricted cash on the accompanying condensed consolidated balance sheets. In addition, the Company held cash of $0.1 million as of June 30, 2024 and December 31, 2023 in money market accounts as collateral for the Company's credit card obligation and increased letter of credit due to an amendment to the lease.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported in the condensed consolidated balance sheets to the corresponding amounts shown in the condensed consolidated statements of cash flows (in thousands):

	June 30, 2024	June 30, 2023
Cash and cash equivalents	$ 12,607	$ 57,433
Restricted cash	1,624	1,624
Total cash, cash equivalents, and restricted cash	$ 14,231	$ 59,057

Concentration of credit risks

Financial instruments that subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents. The Company deposits cash and cash equivalents with high credit quality financial institutions in the United States. These deposits are held in checking and money market accounts and may, from time to time, exceed the federally insured amounts. The Company has not experienced any losses in such accounts. The Company believes it is not exposed to any significant risk in its cash and cash equivalents. The primary objectives of the Company's investment portfolio are the preservation of capital and maintenance of liquidity.

The Company is subject to risks common to companies in the biopharmaceutical industry, including, but not limited to, risks related to the successful development and commercialization of product candidates, fluctuations in operating results and financial risks, the ability to successfully raise additional funds when needed, protection of proprietary rights and patents, patent litigation, compliance with government regulations, dependence on key personnel and collaboration partners, dependence on third-party manufacturers and competition from other products in the marketplace.

Fair value measurements

The Company applies fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Fair value is measured as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A fair value measurement assumes that the transaction to sell the asset or transfer the liability occurs in the principal market for the asset or liability or, in the absence of a principal market, the most advantageous market. A framework is used for measuring fair value utilizing a three-tier hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3).

The three levels of the fair value hierarchy are as follows:

***Level* 1—**Observable inputs such as unadjusted quoted prices in active markets that are accessible at the measurement date for identical unrestricted assets or liabilities the Company has the ability to access;

***Level* 2—**Inputs (other than quoted prices included within Level 1) that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active; and

***Level* 3—**Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

Financial instruments are categorized in their entirety based on the lowest level of input that is significant to the fair value measurement. The assessment of the significance of a particular input to the fair value measurement requires judgment and considers factors specific to the investment. To the extent that the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. The Company reviews the fair value hierarchy classification at each reporting date. Changes in the ability to observe valuation inputs may result in a reclassification of levels for certain assets or liabilities within the fair value hierarchy. The Company did not have any transfers of assets and liabilities between the levels of the fair value measurement hierarchy during the periods presented.

Foreign currency remeasurement

The Company's reporting currency and the functional currency of its foreign subsidiary, CAMP4 AUS, is the United States Dollar ("USD"). At the date a foreign currency denominated transaction is recognized, each asset, liability, revenue, expense, gain or loss arising from the transaction is measured initially in USD based on the exchange rate in effect at that date. Subsequently, at each balance sheet date, balances related to monetary assets and liabilities are adjusted to reflect the current exchange rate, which is the rate at which the related receivable or payable could be settled at that date.

Foreign exchange transaction gains and losses are included in other income (expense), net in the accompanying condensed consolidated statements of operations and comprehensive loss and were immaterial for the six months ended June 30, 2024 and 2023.

Comprehensive loss

There were no differences between net loss and comprehensive loss presented in the condensed consolidated statements of operations for the six months ended June 30, 2024 and 2023.

Property and equipment, net

Property and equipment are stated at cost less accumulated depreciation. Expenditures for maintenance and repairs are charged to expense as incurred, whereas major betterments are capitalized as additions to property and equipment. Depreciation is calculated using the straight-line method over the following estimated useful lives of the assets:

Description	Useful life
Computer and software	Three years
Laboratory equipment	Five years
Furniture and fixtures	Seven years
Leasehold improvements	Shorter of asset life or remaining lease term

Impairment of long-lived assets

The Company evaluates its long-lived assets, which consist of property and equipment, operating lease right-of-use assets, and finance lease right-of-use assets, for impairment at least annually and whenever events or changes in circumstances indicate that the carrying value of an asset 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 the asset is considered to be impaired, the amount of any impairment is measured as the difference between the carrying value and the fair value of the impaired asset. The Company recognized no impairment losses for the six months ended June 30, 2024 and 2023.

Commitments and contingencies

Contractual commitments

The Company enters into contracts in the normal course of business with contract research organizations ("CROs"), contract manufacturing organizations ("CMOs"), academic institutions and other third parties for preclinical and clinical research studies, testing and manufacturing services. These contracts generally do not contain minimum purchase commitments and are cancellable by the Company upon prior written notice, although purchase orders for preclinical materials are generally non-cancellable. Payments due upon cancellation consist primarily of payments for services provided or expenses incurred, including non-cancellable obligations from the Company's service providers, up to the date of cancellation or upon the completion of a manufacturing run.

Guarantees and indemnifications

Indemnification obligations

The Company has entered into indemnification agreements with its officers and directors that require the Company to indemnify such individuals for certain events or occurrences while each such officer or director is, or was, serving at the Company's request in such capacity. The maximum potential future payments the Company could be required to make is, in many cases, unlimited. The Company has directors' and officers' liability insurance coverage that limits its exposure and enables the Company to recover a portion of any future amounts paid.

The Company leases office and laboratory space under operating leases. The Company has standard indemnification arrangements under the leases that require it to indemnify the landlords against all costs, expenses, fines, suits, claims, demands, liabilities and actions directly resulting from any breach, violation or nonperformance of any covenant or condition of the Company's leases.

In the ordinary course of its business, the Company enters into indemnification agreements with certain suppliers and business partners pursuant to which the Company has certain indemnification obligations limited to the costs, expenses, fines, suits, claims, demands, liabilities and actions directly resulting from the Company's gross negligence or willful misconduct, and in certain instances, breaches, violations or nonperformance of covenants or conditions under the agreements.

As of June 30, 2024 and December 31, 2023, the Company had not experienced any material losses related to these indemnification obligations, and no material claims with respect thereto were outstanding. The Company does not expect significant claims related to these indemnification obligations and, consequently, concluded that the fair value of these obligations is negligible, and no related reserves were established.

The Company is subject to the possibility of loss contingencies arising in the ordinary course of business. Management considers the likelihood of loss related to an asset, or the incurrence of a liability, as well as its ability to reasonably estimate the amount of the loss, in determining loss contingencies. An estimated loss contingency is accrued when it is probable that an asset has been impaired, or a liability has been incurred and the amount of loss can be reasonably estimated. The Company regularly evaluates current information available to determine whether such accruals should be adjusted and whether new accruals are required.

Legal proceedings

From time to time, the Company may become involved in litigation relating to claims arising from the ordinary course of business. Management believes that there are no claims or actions pending against the Company currently, the ultimate disposition of which would have a material adverse effect on the Company's condensed consolidated results of operations, financial condition or cash flows.

Leases

In accordance with ASC 842, *Leases*, the Company determines if an arrangement is or contains a lease at inception. A contract is or contains a lease if the contract conveys the right to control the use of an identified

asset for a period of time in exchange for consideration. The Company classifies leases at the lease commencement date as operating or finance leases and records a right-of-use asset and a lease liability on the condensed consolidated balance sheet for all leases with an initial lease term of greater than 12 months. Leases with an initial term of 12 months or less are not recorded in the condensed consolidated balance sheet, but payments are recognized as expense on a straight-line basis over the lease term.

A lease qualifies as a finance lease if any of the following criteria are met at the inception of the lease: (i) there is a transfer of ownership of the leased asset to the Company by the end of the lease term, (ii) the Company holds an option to purchase the leased asset that it is reasonably certain to exercise, (iii) the lease term is for a major part of the remaining economic life of the leased asset, (iv) the present value of the sum of lease payments equals or exceeds substantially all of the fair value of the leased asset, or (v) the nature of the leased asset is specialized to the point that it is expected to provide the lessor no alternative use at the end of the lease term. All other leases are recorded as operating leases.

The Company enters into contracts that contain both lease and non-lease components. Non-lease components may include maintenance, utilities and other operating costs. The Company combines the lease and non-lease components of fixed costs in its lease arrangements as a single lease component. Variable costs, such as utilities or maintenance costs, are not included in the measurement of right-of-use assets and lease liabilities, but rather are expensed when the event determining the amount of variable consideration to be paid occurs.

Finance and operating lease assets and liabilities are recognized at the lease commencement date based on the present value of the lease payments over the lease term using the discount rate implicit in the lease. If the rate implicit is not readily determinable, the Company utilizes an estimate of its incremental borrowing rate based upon the available information at the lease commencement date. Operating lease assets are further adjusted for prepaid or accrued lease payments. Operating lease assets are expensed using the straight-line method as an operating expense over the lease term. Finance lease assets are amortized to depreciation expense using the straight-line method. Finance lease payments are bifurcated into (i) a portion that is recorded as imputed interest expense and (ii) a portion that reduces the finance liability associated with the lease.

Certain of the Company's leases provide a lease incentive in the form of reimbursable leasehold improvements. Due to the unpredictability of the payout of leasehold improvement reimbursements, the Company recognizes a reduction to the right-of-use asset and the lease liability once it has incurred costs that qualify as reimbursable by the lessor. The reduction to the right-of-use asset is recognized prospectively over the remainder of the lease term.

Certain of the Company's leases include options to extend or terminate the lease. The amounts determined for the Company's right-of-use assets and lease liabilities generally do not assume that renewal options or early-termination provisions, if any, are exercised, unless it is reasonably certain that the Company will exercise such options.

In addition, the Company examines other contracts with suppliers, vendors and outside parties to identify whether such contracts contain an embedded lease and, as applicable, records such embedded leases in accordance with ASC 842, *Leases*.

Financing obligation (failed sale-leaseback)

In accordance with ASC 842, *Leases*, for potential sale-leaseback transactions, the Company assesses the contract to identify if a sale occurred in accordance with ASC 606. Sale-and-leaseback transactions occur when the Company sells assets to a third-party and simultaneously leases them back. The resulting leases that qualify for sale-and-leaseback accounting are evaluated and accounted for as operating leases. A transaction that does not qualify for sale-and-leaseback accounting as a result of finance lease classification or the failure to meet certain revenue recognition criteria is accounted for as a financing transaction. For a financing transaction, the Company will retain the assets sold within Property, plant and equipment, net and record a financing obligation equal to the amount of cash proceeds received. Rental payments under such transactions are recognized as a reduction of

the financing obligation and as interest expense using an effective interest method. To date, the Company has entered into one failed sale-leaseback transaction. See additional discussion in *Note 7. Commitments and contingencies*.

Revenue recognition and accounting for collaboration agreements

Revenue from contracts with customers

The Company recognizes revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). Under ASC 606, an entity recognizes revenue when its customer obtains control of promised goods or services, in an amount that reflects the consideration that the entity expects to receive in exchange for those goods or services. In determining the appropriate amount of revenue to be recognized as it fulfills its obligations under its agreements, the Company performs the following steps: (i) identification of the promised goods or services in the contract; (ii) determination of whether the promised goods or services are performance obligations, including whether they are distinct in the context of the contract; (iii) measurement of the transaction price, including the constraint on variable consideration; (iv) allocation of the transaction price to the performance obligations; and (v) recognition of revenue when (or as) the Company satisfies each performance obligation.

As part of the accounting for revenue from contracts with customers, the Company uses judgment to determine: (a) the performance obligations based on the determination under step (ii) above; (b) the transaction price under step (iii) above; and (c) the recognition of revenue as services are performed under step (v) above. The Company also uses judgment to determine whether development milestones or other variable consideration, with the exception of royalties and sales-based milestones, should be included in the transaction price as described further below.

The Company applies the five-step model to contracts when the arrangement is not a collaboration pursuant to ASC Topic 808, *Collaborative Arrangements* ("ASC 808"), and it is probable that the Company will collect the consideration it is entitled to in exchange for the goods or services it transfers to the customer. At contract inception, once the contract is determined to be within the scope of ASC 606, the Company assesses the goods or services promised within each contract and determines those that are performance obligations. The Company then recognizes as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

During the six months ended June 30, 2024 and 2023, the Company did not recognize any revenue under ASC 606.

Collaborative agreements

The Company analyzes its collaboration agreements to assess whether they are within the scope of ASC 808 by determining whether such arrangements involve joint operating activities performed by parties that are both active participants in the activities and exposed to significant risks and rewards that are dependent on the commercial success of such activities. To the extent the arrangement is within the scope of ASC 808, the Company assesses whether aspects of the arrangement between the Company and the collaboration partner are within the scope of other accounting literature. If the Company concludes that some or all aspects of the arrangement represent a transaction with a customer, the Company accounts for those aspects of the arrangement within the scope of ASC 606. If the Company concludes that some or all aspects of the arrangement are within the scope of ASC 808 and do not represent a transaction with a customer, the Company recognizes the Company's share of the allocation of the shared costs incurred with respect to the jointly conducted activities as a component of the related expense in the period incurred.

Research and development expenses

Research and development ("R&D") expenses consist of costs incurred for R&D of its lead product candidate, CMP-CPS-001, and are recorded to operating expenses when incurred. The Company's R&D expenses consist

primarily of costs incurred in performing R&D activities, including personnel-related expenses such as salaries, stock-based compensation and benefits, facilities costs, depreciation and external costs of outside vendors engaged to conduct clinical and preclinical development activities and to manufacture CMP-CPS-001. The Company accrues expenses related to development activities performed by third parties based on an evaluation of services received and efforts expended pursuant to the terms of the contractual arrangements. Payments under some of these contracts depend on preclinical trial milestones. Non-refundable advance payments for goods and services that will be used over time for R&D are deferred and capitalized as R&D prepaid expenses on the Company's condensed consolidated balance sheets. The capitalized amounts are recognized as an expense as the goods are delivered or as the related services are performed. In accruing service fees, the Company estimates the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from the estimate, the Company will adjust the accrual or prepaid expense accordingly. Costs to acquire technologies to be used in R&D that have not reached technological feasibility and have no alternative future use are also expensed as incurred.

General and administrative expenses

General and administrative ("G&A") expenses consist primarily of personnel-related expenses, including salaries, bonuses, benefits, travel and stock-based compensation expenses for employees in executive, accounting and finance, business development, human resources, legal, and other administrative functions. Other significant G&A expenses include allocated facility-related costs, legal fees relating to corporate and intellectual property matters, professional fees for accounting, audit and tax services, consulting fees and insurance costs. G&A costs are expensed as incurred.

Patent costs

All patent-related costs incurred in connection with filing and prosecuting patent applications are expensed as incurred due to the uncertainty about the recovery of the expenditure. Amounts are classified as G&A expenses.

Offering costs

The Company complies with the requirements of ASC 340, *Other Assets and Deferred Costs*, with regards to offering costs. Prior to the completion of an offering of common stock, direct offering costs are capitalized as deferred offering costs. The deferred offering costs are charged to additional paid-in capital for offerings of common stock or as a reduction in the carrying value of preferred stock for offerings of preferred stock. Pursuant to ASC 340-10-S99-1, initial public offering ("IPO") costs directly attributable to an offering of equity securities are deferred and would be charged against the gross proceeds of the offering as a reduction of additional paid-in capital. Deferred offering costs consist of professional and registration fees that are directly related to the proposed IPO. Should the in-process equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the Company's consolidated statements of operations and comprehensive loss. As of June 30, 2024 and December 31, 2023, the Company recorded deferred offering costs of $1.8 million and $0, respectively, as presented on the condensed consolidated balance sheets.

Stock-based compensation

The Company periodically grants equity-based payment awards in the form of stock options to employees, directors and non-employees and records stock-based compensation expenses for awards of stock-based payments based on their estimated fair value at the grant date. The Company recognizes stock-based compensation expense for all equity-based payments, including stock options. Stock-based compensation costs are calculated based on the estimated fair value of the underlying option using the Black-Scholes option-pricing model on the date of grant for stock options and are recognized as expense in the accompanying condensed consolidated statements of operations and comprehensive loss on a straight-line basis over the requisite service period, which is typically the vesting period. Determining the appropriate fair value model and related input assumptions requires judgment, including estimating the fair value of the Company's common stock and stock price volatility.

Given the absence of a public trading market, the fair value of the Company's common stock is determined by the Company's Board of Directors (the "Board") at the time of each option grant by considering a number of objective and subjective factors. These factors include the valuation of a select group of representative public companies within the industry that focus on biotechnology that the Board believes is comparable to the Company's operations; operating and financial performance; the lack of liquidity of the common stock and trends in the broader economy and biotechnology industry also impact the determination of the fair value of the common stock.

The other inputs to the Black-Scholes option-pricing model include the following:

- The risk-free interest rate used is based on the published U.S. Department of Treasury interest rates in effect at the time of stock option grant for zero coupon U.S. Treasury notes with maturities approximating each grant's expected term;
- The dividend yield is zero as the Company has not paid dividends and does not anticipate paying a cash dividend in the foreseeable future;
- The expected term for options granted is calculated using the simplified method and represents the average time that options are expected to be outstanding based on the mid-point between the vesting date and the end of the contractual term of the award; and
- Expected volatility is derived from the historical volatilities of a select group of representative companies, for a look-back period commensurate with the expected term of the stock options, as the Company has no trading history of common stock.

The Company recognizes forfeitures related to stock-based compensation awards as they occur.

The Company classifies stock-based compensation expense in the condensed consolidated statement of operations and comprehensive loss in the same manner in which the award recipients' payroll costs are classified or in which the award recipients' service payments are classified.

Income taxes

The Company accounts for income taxes in accordance with ASC 740, *Income Taxes* ("ASC 740"). ASC 740 requires the use of the asset and liability method of accounting for income taxes. The current or deferred tax consequences of a transaction are measured by applying the provisions of enacted tax laws to determine the amount of taxes payable currently or in future years. Deferred tax assets and liabilities are determined based on the difference between the condensed consolidated financial statements and tax basis of assets and liabilities and expected future tax consequences of events that have been included in the condensed consolidated financial statements or tax returns using enacted tax rates in effect for the year in which the differences are expected to reverse. Under this method, a valuation allowance is used to offset deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets may not be realized. Management evaluates the recoverability of deferred taxes and the adequacy of the valuation allowance at each reporting period (see Note 11, *Income Taxes*).

The Company follows the provisions of ASC 740 relative to accounting for uncertain tax positions. These provisions provide guidance on the recognition, de-recognition and measurement of potential tax benefits associated with tax positions. For those benefits to be recognized, a tax position must be more likely than not to be sustained upon examination by taxing authorities. The Company had no reserves related to uncertain tax positions as of June 30, 2024 and December 31, 2023. As applicable, the Company recognizes accrued penalties and interest related to unrecognized tax benefits in the provision for income taxes. At June 30, 2024 and December 31, 2023, the Company did not accrue any potential interest or penalties.

The Company is required to file federal and state income tax returns in the U.S. and foreign income tax returns in Australia. The preparation of tax returns requires the Company to interpret the applicable tax laws and regulations in effect in such jurisdictions, which could affect the amount of tax paid by the Company.

The Company's income tax returns are based on calculations and assumptions that are subject to examination by the Internal Revenue Service and other tax authorities. In addition, the calculation of the Company's tax liabilities involves dealing with uncertainties in the application of complex tax regulations.

Classification of convertible preferred stock

The Company's convertible preferred stock is classified as temporary equity in the accompanying condensed consolidated balance sheets and is excluded from stockholders' deficit as the potential redemption of such stock is outside the Company's control. The convertible preferred stock is not redeemable except for in the event of a liquidation, dissolution or winding up of the Company. Costs incurred in connection with the issuance of convertible preferred stock are recorded as a reduction of gross proceeds from issuance. The Company does not accrete the carrying values of the preferred stock to the redemption values since the occurrence of these events was not considered probable as of June 30, 2024 and December 31, 2023. Subsequent adjustments of the carrying values to the ultimate redemption values will be made only when it becomes probable that these events will occur.

Net loss per share attributable to common stockholders

The Company determined all of its convertible preferred stock qualifies as participating securities, as defined in ASC 260, *Earnings Per Share* ("ASC 260"). Under ASC 260, securities are considered participating securities if the securities may participate in undistributed earnings with common stock, whether that participation is conditioned upon the occurrence of a specified event or not. In accordance with ASC 260, a company is required to use the two-class method when computing net income (loss) per share when a company has securities that qualify as participating securities. The two-class method is an earnings allocation formula that determines net income (loss) per share for each class of common stock and participating security according to dividends declared (or accumulated) and participation rights in undistributed earnings. Diluted net income (loss) per share for the Company's common stock is computed using the more dilutive of the two-class method or the if-converted method.

Basic net income (loss) per share attributable to common stockholders is computed by dividing the net income (loss) attributable to common stockholders by the weighted average number of shares of common stock outstanding for the period. Diluted net income (loss) attributable to common stockholders is computed by adjusting net income (loss) per share attributable to common stockholders to reallocate undistributed earnings based on the potential impact of dilutive securities. Diluted net income (loss) per share attributable to common stockholders is computed by dividing the diluted net income (loss) attributable to common stockholders by the weighted average number of shares of common stock outstanding for the period, including potential dilutive common shares. For purpose of this calculation, outstanding options to purchase common stock, unvested restricted stock awards, and shares of convertible preferred stock are considered potential dilutive common shares. The Company has generated a net loss in all periods presented, and therefore the basic and diluted net loss per share attributable to common stockholders are the same as the inclusion of the potentially dilutive securities would be anti-dilutive.

Segment information

Operating segments are defined as components of an enterprise (business activity from which it earns revenue and incurs expenses) about which discrete financial information is available and regularly reviewed by the chief operating decision maker in deciding how to allocate resources and in assessing performance. The Company's chief operating decision maker is its Chief Executive Officer. The chief operating decision maker reviews consolidated operating results to make decisions about allocating resources and assessing performance for the entire company. The Company views its operations and manages its business as one operating segment.

Emerging growth company status

The Company is an emerging growth company ("EGC") as defined in the Jumpstart Our Business Startups Act of 2012, as amended (the "JOBS Act"), and may take advantage of certain exemptions from various reporting requirements that are applicable to other public companies that are not EGCs. The Company may take advantage of these exemptions until it is no longer an EGC under Section 107 of the JOBS Act and has elected to use the

extended transition period for complying with new or revised accounting standards. As a result of this election, the Company's condensed consolidated financial statements may not be comparable to companies that comply with public company FASB standards' effective dates.

Recently adopted accounting pronouncements

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments — Credit Losses (Topic 326): *Measurement of Credit Losses on Financial Instruments*, which has been subsequently amended by ASU No. 2018-19, ASU No. 2019-04, ASU No. 2019-05, ASU No. 2019-10, ASU No. 2019-11, ASU No. 2020-02, and ASU 2022-02 ("ASU 2016-1"3). The Company adopted ASU 2016-13 on January 1, 2023 using the modified retrospective approach. The Company's condensed consolidated financial statements for prior-year periods have not been revised and are reflective of the credit loss requirements which were in effect for that period. The adoption of ASU 2016-13 did not have a material impact on the Company's condensed consolidated financial statements and related disclosures.

Recently issued accounting standards

Accounting standards not listed below were assessed and determined not to be applicable or are expected to have minimal impact on the Company's condensed consolidated financial statements.

In December 2023, the FASB issued ASU 2023-09, Income Taxes ("Topic 740"): *Improvements to Income Tax Disclosures*. The guidance includes the requirement that public business entities, on an annual basis, disclose specific categories in the rate reconciliation and provide additional information for reconciling items that meet a quantitative 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). It also requires that all entities disclose, on an annual basis, the amount of income taxes paid (net of refunds received) disaggregated by federal (national), state, and foreign taxes and the amount of income taxes paid (net of refunds received) disaggregated by individual jurisdictions in which income taxes paid (net of refunds received) is equal to or greater than 5% of total income taxes paid (net of refunds received) and requires that all entities disclose income (or loss) from continuing operations before income tax expense (or benefit) disaggregated between domestic and foreign and income tax expense (or benefit) from continuing operations disaggregated by federal (national), state, and foreign. Lastly, the guidance eliminates the requirement for all entities to disclose the nature and estimate of the range of the reasonably possible change in the unrecognized tax benefits balance in the next 12 months or make a statement that an estimate of the range cannot be made. For public business entities, the guidance is effective for annual periods beginning after December 15, 2024. Early adoption is permitted for annual consolidated financial statements that have not yet been issued or made available for issuance. The guidance should be applied on a prospective basis. Retrospective application is permitted. The Company is currently evaluating the impact that this guidance may have on its consolidated financial statements.

3. Fair value measurements

The following tables present the financial instruments carried at fair value on a recurring basis as of June 30, 2024 and December 31, 2023, respectively, in accordance with the ASC 820 hierarchy (in thousands):

	Fair value measurements at June 30, 2024			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents	$ 10,659	$ —	$ —	$ 10,659

	Fair value measurements at December 31, 2023			
	Level 1	Level 2	Level 3	Total
Assets				
Cash equivalents	$ 37,074	$ —	$ —	$ 37,074

The Company's carrying amounts reflected in the condensed consolidated balance sheet for prepaid expenses and other current assets, accounts payable and accrued expenses and other liabilities are shown at their historical values which approximate their fair values.

4. Prepaid expenses and other current assets

Prepaid expenses and other current assets consisted of the following (in thousands):

	June 30, 2024	December 31, 2023
Variable lease expenses	$ 115	$ 105
Federal R&D tax credit receivable	345	442
Software and subscriptions	369	287
Research and development (R&D)	961	480
Other	389	318
Total prepaid expenses and other current assets	$ 2,179	$ 1,633

5. Property and equipment, net

Property and equipment consisted of the following (in thousands):

	June 30, 2024	December 31, 2023
Laboratory equipment	$ 3,489	$ 3,322
Computer and software	938	938
Furniture and fixtures	524	524
Leasehold improvements	4,518	4,518
Total property and equipment	9,469	9,302
Less: accumulated depreciation and amortization	(5,268)	(4,505)
Total property and equipment, net	$ 4,201	$ 4,797

The Company incurred depreciation and amortization expense of $0.9 million and $0.8 million for the six months ended June 30, 2024 and 2023, respectively. Depreciation and amortization expense for the six months ended June 30, 2024 and 2023 included $0.1 million and less than $0.1 million of finance lease right-of-use asset amortization, respectively. See additional discussion in *Note 7. Commitments and Contingencies*.

6. Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	June 30, 2024	December 31, 2023
Payroll and employee related expenses	$ 1,071	$ 1,937
Professional fees and other general and administrative expenses	1,233	475
Research and development (R&D) expenses	333	601
Other	293	289
Total accrued expenses	$ 2,930	$ 3,302

7. Commitments and contingencies

Operating leases

The Company currently leases approximately 30,000 square feet of office space and laboratory space in Cambridge, Massachusetts and approximately 5,300 square feet of office and lab space in Boulder, Colorado. The

office and laboratory space lease in Cambridge, Massachusetts expires on June 30, 2027. The lease provides a lease incentive in the form of reimbursable leasehold improvements of up to $3.6 million. As of June 30, 2024 and December 31, 2023, the Company had capitalized $4.5 million of leasehold improvement costs to date under this lease, of which $3.6 million was reimbursed through the lease incentive. Amounts received for lease incentives are included in the changes in operating lease assets and liabilities line in the condensed consolidated statement of cash flows. As of June 30, 2024, this operating lease accounted for $5.7 million of operating lease right-of-use assets, $2.6 million of current operating lease liabilities and $6.0 million of non-current operating lease liabilities.

In September 2023, the Company leased certain office and laboratory space under an operating lease in Boulder, Colorado for approximately 5,300 square feet of space. The five-year lease commenced on September 1, 2023. The lease for this office and laboratory space in Boulder, Colorado expires on September 30, 2028. As of June 30, 2024, this operating lease accounted for $1.2 million of operating lease right-of-use assets, $0.2 million of current operating lease liabilities and $1.0 million of non-current operating lease liabilities.

The table below summarizes the Company's operating lease costs for the six months ended June 30, 2024 and 2023 (in thousands except for lease terms and borrowing rates):

	Six months ended June 30,	
	2024	2023
Lease costs:		
Lease expense	$ 1,218	$ 1,326
Short-term lease expense	27	57
Variable lease expense	673	575
Total operating lease costs	$ 1,917	$ 1,959
Other information:		
Cash paid for amounts included in the measurement of lease liabilities, including in operating cash flows	$ 1,753	$ 1,701
Weighted-average remaining lease term	3.2	4.0
Weighted-average incremental borrowing rate	6.72%	6.66%

Maturities of operating lease liabilities as of June 30, 2024 were as follows (in thousands):

Maturity of operating lease liabilities	
2024 remaining	$ 1,701
2025	3,455
2026	3,558
2027	1,980
2028	264
Total lease payments	10,958
Less: amount representing imputed interest	(1,072)
Total future minimum lease obligations	$ 9,885

Finance leases

The Company leases certain specialized lab equipment under several finance lease agreements with maturities ranging from November 2024 to November 2028.

The table below summarizes the Company's finance lease costs for the six months ended June 30, 2024 and 2023 (in thousands except for lease terms and borrowing rates):

	Classification	Six months ended June 30, 2024	2023
Lease costs:			
Amortization of right-of-use assets	Depreciation and amortization	$ 98	$ 58
Interest on lease liabilities	Other expense	16	13
Total operating lease costs		$ 114	$ 72
Other information:			
Cash paid for amounts included in the measurement of lease liabilities, including in operating cash flows		$ 178	$ 112
Weighted-average remaining lease term		1.7	1.7
Weighted-average incremental borrowing rate		8.19%	8.19%

Maturities of finance lease liabilities as of June 30, 2024 were as follows (in thousands):

Maturity of finance lease liabilities	
2024 remaining	$203
2025	98
2026	31
2027	31
Total lease payments	$363
Less: amount representing imputed interest	(23)
Total future minimum lease obligations	$340

Financing obligation

In April 2023, the Company (seller-lessee) sold certain laboratory equipment to an unrelated third-party (buyer-lessor) and simultaneously entered into a 26-month lease agreement for the laboratory equipment with the buyer-lessor through June 2025. The lease requires monthly payments of less than $0.1 million and provides a fixed price repurchase option at the end of the lease term of $0.1 million.

The repurchase option precludes accounting for the transfer of the asset to the buyer-lessor as a sale under ASC 842 since the exercise price of the repurchase option is fixed and, therefore, is not the fair value of the asset on the exercise date of the option. Thus, the agreement is considered a financing transaction (i.e., failed sale-leaseback) as the Company is reasonably certain to exercise the repurchase option at the end of the lease. The net proceeds received amounted to $0.7 million, which is recorded as a financing liability in the Company's condensed consolidated balance sheet. The Company imputes interest at a rate of 0.86% on a monthly basis. For the six months ended June 30, 2024 and 2023, the Company recorded less than $0.1 million, respectively, of interest expense related to this financing transaction in other expense in the condensed consolidated statements of operations and comprehensive loss.

Legal proceedings

A liability for loss contingencies arising from claims, assessments, litigation, fines, penalties and other sources is recorded in the consolidated financial statements if it is determined that it is probable that a loss has been incurred and the amount (or range) of the loss can be reasonably estimated. There are no matters currently outstanding for which any liabilities have been accrued or require disclosure.

8. Collaboration and license agreements

In-license agreements

Children's Medical Center Corporation

In April 2018, the Company entered into a development and license agreement (the "Children's Medical Center Corporation Agreement") with Children's Medical Center Corporation ("CMCC"). The agreement allows the Company to use CMCC's proprietary intellectual property to conduct research, development and commercialization of products utilizing CMCC's proprietary intellectual property in return for specified payments. The proprietary intellectual property licensed pursuant to this agreement is related to certain legacy programs the Company is not pursuing and was subsequently sublicensed to Fulcrum Therapeutics, Inc., or Fulcrum, as described below. As part of the agreement, the Company issued a total of 169,624 shares of common stock to CMCC and its affiliates based on the fair value of the common stock on the date of issuance.

The Company is obligated to pay potential development milestone payments under the terms of the Children's Medical Center Corporation Agreement of up to $7.7 million for the first licensed target, $3.9 million for the second licensed target and $1.9 million for the third licensed target upon the achievement of certain specified contingent events. If commercial sales of a licensed product commence, the Company will pay CMCC royalties at percentage rates ranging in the low- to mid-single digits on net sales of licensed products in countries where such product is protected by patent rights. The Company incurred less than $0.1 million of royalties owed to CMCC under the agreement during the six months ended June 30, 2024 and 2023, respectively, and recorded the amounts in R&D expense in the condensed consolidated statements of operations and comprehensive loss.. The Company re-evaluates the likelihood of achieving future milestones at the end of each reporting period. As of June 30, 2024, the Company determined that the likelihood of achieving future milestones was not probable.

Whitehead Institute for Biomedical Research

In October 2019, the Company entered into a patent license agreement with the Whitehead Institute for Biomedical Research, or the Whitehead Institute, which was subsequently amended on December 14, 2021, or the Whitehead First Amendment, and on November 7, 2023, or the Whitehead Second Amendment. Under the agreement, the Company was granted a worldwide, royalty-bearing, sublicensable license under certain patent rights owned or controlled by the Whitehead Institute. As part of the agreement, the Company paid an initial $0.1 million license issuance fee, and de minimis additional fees in connection with each of the Whitehead First Amendment and Whitehead Second Amendment that were recorded as R&D expense in the Company's condensed consolidated statement of operations and comprehensive loss. The Company is also obligated to pay annual license maintenance fees for the term of the agreement, pursuant to which the Company has paid an aggregate of $0.19 million through June 30, 2024. In addition, the Company is obligated to pay certain filing, prosecution and maintenance fees with respect to certain patent rights licensed to us under the agreement, pursuant to which the Company has paid an aggregate of $0.26 million through June 30, 2024. The Company is obligated to pay potential development milestone payments of up to an aggregate of the low single-digit millions of dollars under the terms of the agreement upon the achievement of certain specified contingent events to the Whitehead Institute. In addition, if the Company successfully commercializes a product under the agreement, the Company is also obligated to pay tiered royalties at percentage rates ranging from less than one percent to the mid-single digits of net sales or of running royalties of net sales, subject to specified reductions, until either the last to-expire valid claim of a Whitehead Institute patent covering the product or a duration in the late single digit years after the first commercial sale, in each case on a product-by-product and country-by-country basis. The Company incurred de minimis amounts of license maintenance and amendment issuance fees during the six months ended June 30, 2024 and 2023, respectively, under the amended agreement and recorded the amounts in the Company's R&D expense in its condensed consolidated statements of operations and comprehensive loss.

Sublicense agreement

Fulcrum Therapeutics, Inc.

In July 2023, the Company entered into a license agreement (the "Fulcrum Agreement") with Fulcrum. Under the Fulcrum Agreement, the Company granted an exclusive license related to the Company's intellectual property ("IP") and granted a sublicense for IP obtained through the Children's Medical Center Corporation Agreement. In exchange for the license rights, Fulcrum paid the Company a $0.35 million upfront payment. In the event that Fulcrum achieves certain development and commercial milestones, Fulcrum will be obligated to pay the Company one-time milestone payments ranging from $1.0 million to $20.0 million (with respect to a Tier 1 Product, as defined in the Fulcrum Agreement) or $0.6 million to $12.0 million (with respect to a Tier 2 Product, as defined in the Agreement), depending on the milestone achieved. In addition, the Fulcrum Agreement includes both potential nominal minimum annual royalty payments as well as sales-based royalties upon commercialization of up to the low-double digits.

The Company assessed this arrangement in accordance with ASC 606 and concluded that the contract counterparty, Fulcrum, is a customer. In accordance with ASC 606, the Company determined that there is one performance obligation in the Fulcrum Agreement, consisting of the exclusive and non-exclusive license rights to Fulcrum. The transaction price was comprised of the fixed consideration of $0.35 million and was recognized upon transfer of control of the licenses at a point in time upon contract execution. The arrangement includes significant variable consideration primarily in the form of milestone payments, which is fully constrained at the inception of the contract. All variable consideration is remeasured at each financial reporting date. At June 30, 2024, the Company determined the variable consideration was fully constrained. The related constraint on each element of variable consideration is reassessed each reporting period.

The sales-based royalty fee is considered variable consideration and will be recognized as revenue as such sales occur. The sales-based royalty fee qualifies for the royalty constraint exception and does not require an estimate of the future transaction price.

During the six months ended June 30, 2024 and 2023, the Company did not record any license revenue pursuant to the Fulcrum Agreement.

Collaborative arrangement

Eli Lilly and Company

In July 2023, the Company executed a Material Transfer Agreement ("MTA") with Eli Lilly and Company ("Eli Lilly"). As part of the MTA, the Company and Eli Lilly agreed to perform research and development activities to generate up to three antisense oligonucleotides ("ASOs") in accordance with a prescribed workplan. For the six months ended June 30, 2024, the Company received $0.2 million from Eli Lilly related to the MTA. The Company evaluated the MTA under ASC 808 and concluded that it is a collaboration arrangement. The Company and Eli Lilly are jointly overseeing the research and development activities under the MTA and both parties are exposed to the significant risks and potential rewards under the MTA. During the six months ended June 30, 2024, the Company recorded $0.2 million as a reduction in R&D expense in the condensed consolidated statement of operations and comprehensive loss. Additionally, the Company had an unbilled receivable of $0.1 million recorded within prepaid expenses and other current assets on the condensed consolidated balance sheet as of June 30, 2024 and December 31, 2023, respectively.

9. Convertible preferred stock and stockholders' deficit

Convertible preferred stock

As of June 30, 2024 and December 31, 2023, the Company's Series A Prime and Series B convertible preferred stock have been classified as temporary equity in the accompanying condensed consolidated balance sheets.

Convertible preferred stock consisted of the following as of June 30, 2024 and December 31, 2023 (in thousands, except share amounts):

	Authorized shares	Shares issued and outstanding	Liquidation value	Common stock issuable upon conversion
Series A Prime	68,173,692	62,389,791	$ 62,381	62,389,791
Series B	81,499,592	68,258,635	$ 100,504	68,258,635

Series B convertible preferred stock

In 2022, the Company entered into a securities purchase agreement (the "Series B Agreement") to sell shares of Series B convertible preferred stock (the "Series B Preferred Stock") at $1.4724 per share. From June through July 2022, the Company issued 68,258,635 shares of Series B Preferred Stock to existing and new investors for gross cash proceeds of $100.5 million, less issuance costs of $0.3 million, resulting in net proceeds of $100.2 million.

Rights, preferences, privileges and restrictions

Voting rights

Each preferred stockholder is 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 at the time of such vote**.** All preferred stockholders are entitled to vote on all matters upon which holders of common stock have the right to vote, other than matters that must by law be voted by class or series vote.

Conversion rights

Each share of convertible preferred stock is convertible at the option of the holder at any time into a share of common stock. Each share of convertible preferred stock is convertible into that number of common shares as is determined by dividing the applicable initial purchase price) of such share by the applicable conversion price. The conversion rate is subject to adjustment upon the occurrence of certain events, including diluting issues of shares, stock splits, stock combinations, certain dividends and distributions, a merger and a reorganization.

All shares of the convertible preferred stock are automatically convertible into shares of common stock, in a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, covering the offer and sale of common stock for the account of the Company which results in at least $75.0 million of gross proceeds to the Company.

Dividend rights

Preferred stockholders are entitled to receive, when and as declared by the Board of Directors, preferential non-cumulative cash dividends at a rate of 6% per annum of the original issue price per share. Such dividends are payable only when and if declared by the Company's board of directors. No such dividends have been declared or paid through June 30, 2024.

Liquidation preference

In the event of any voluntary or involuntary liquidation, dissolution, or winding up of the Company, the holders of shares of the preferred stock shall be paid an amount per share first out of the assets and legally available

funds of the Company available for distribution to holders of the Company's capital stock of all classes, an amount equal to the greater of the original issue price, plus all declared dividends accrued but unpaid with respect to each such shares, as adjusted for any stock dividend, stock split, recapitalization, or other similar event. After payment of all preferential amounts to the holders of preferred shares, any assets and funds of the Company that remain available for distribution shall be distributed ratably among the holders of the common stock.

Redemption rights

The holders of the shares of the Preferred Stock may redeem their shares for the original issue price per share and any declared dividends upon a Deemed Liquidation Event, as defined per the terms of the applicable preferred stock agreement.

Common stock

The Company is authorized to issue up to 210,000,000 shares of common stock at June 30, 2024 and December 31, 2023, respectively, of which 11,521,191 and 11,509,269 shares were issued at June 30, 2024 and December 31, 2023, respectively; 5,506,768 and 5,168,193 shares were outstanding as of June 30, 2024 and December 31, 2023, respectively.

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 convertible preferred stock.

Voting

Each holder of outstanding shares of common stock is entitled to one vote in respect of each share. The holders of outstanding shares of common stock, voting together as a single class, are entitled to elect one director. The number of authorized shares of common stock may be increased or decreased by the affirmative vote of a majority of the outstanding shares of common stock and preferred stock voting together as a single class.

Dividends

Subject to the payment in full of all preferential dividends to which the holders of the preferred stock are entitled, the holders of common stock are entitled to receive dividends out of funds legally available therefor at such times and in such amounts as the board of directors may determine in its sole discretion, with holders of preferred stock and common stock sharing pari passu in such dividends.

Liquidation rights

After payment in full of all preferential amounts to which the holders of preferred stock are entitled upon any voluntary or involuntary liquidation, dissolution or winding-up of the Company or deemed liquidation event of the Company, all of the remaining assets of the Company available for distribution to the stockholders shall be distributed among the holders of the preferred stock and common stock, pro rata based on the number of shares held by each such holder on an as converted to common stock basis.

Reserved shares

As of June 30, 2024, the Company reserved the following shares of common stock for issuance upon conversion of the outstanding convertible preferred stock and exercise of stock options:

	As of June 30, 2024
Shares reserved for convertible preferred stock	130,648,426
Shares reserved for future issuance under the 2016 Stock Incentive Plan	10,746,586
Shares reserved for stock option exercises	28,044,498
Shares reserved for warrants	1,602
Shares reserved for restricted stock vesting	506,187
Total	169,947,299

10. Stock-based compensation

In 2016, the Company adopted the Marauder Therapeutics, Inc. 2016 Stock Option and Grant Plan (the "Plan"). All of the Company's employees, officers, directors, consultants and advisors are eligible to be granted options, restricted stock units and other stock-based awards under the terms of the Plan. When the Plan was initially established, it provided for the grant of 212,030 shares of common stock. During 2018, the Board of Directors approved an increase to 15,884,027 shares of common stock available under the Plan. During 2021, the Board of Directors approved an increase to 17,070,142 shares of common stock available under the Plan. During 2022, the Board of Directors approved another increase to 42,656,671 shares of common stock available under the Plan. As of June 30, 2024, there were 10,746,586 shares of common stock remaining and available for issuance under the 2016 Plan.

The Company may grant options to purchase authorized but unissued shares of the Company's common stock. Options granted under the 2016 Plan include incentive stock options that can be granted only to the Company's employees and non-statutory stock options that can be granted to the Company's employees, consultants, advisors and directors.

The exercise prices, vesting and other restrictions of the awards to be granted under the 2016 Plan is determined by the board of directors, except that no stock option may be issued with an exercise price less than the fair market value of the common stock at the date of the grant or have a term in excess of ten years. Options granted under the 2016 Plan are exercisable in whole or in part at any time subsequent to vesting, which is typically over a four-year period.

Stock options

The following table summarizes stock option activity for the six months ended June 30, 2024 (in thousands, except share and per share amounts):

	Number of options	Weighted-average exercise price	Weighted-average remaining contractual term	Aggregate intrinsic value
Balance at December 31, 2023	25,514,335	$ 0.54	8.05	$ 6,893
Options granted	2,976,360	$ 0.81		
Options cancelled	(434,275)	$ 0.69		
Options exercised	(11,922)	$ 0.21		$ 7
Balance at June 30, 2024	28,044,498	$ 0.57	7.77	$ 13,568
Vested and expected to vest as of June 30, 2024	28,044,498	$ 0.57	7.77	$ 13,568
Exercisable at June 30, 2024	14,801,318	$ 0.49	7.09	$ 8,868

The Company has recorded stock-based compensation expense related to stock options of $1.6 million and $1.5 million for the six months ended June 30, 2024 and 2023, respectively. The Company has an aggregate $6.9 million of gross unrecognized stock-based compensation expense as of June 30, 2024 remaining to be recognized over a weighted average period of 2.5 years.

A summary of restricted stock award activity for the six months ended June 30, 2024 is a follows:

	Number of shares	Weighted average fair value
Unvested at December 31, 2023	832,840	$ 0.18
Granted	—	—
Vested	(326,653)	$ 0.19
Forfeited	—	—
Unvested at June 30, 2024	506,187	$ 0.17

All restricted common stock awards were initially issued at a price determined to be fair value on the date of grant. The Company recognizes forfeitures of restricted common stock as they occur. As of June 30, 2024, total unrecognized stock-based compensation expense relating to unvested restricted common stock was $0.1 million. This amount is expected to be recognized over a weighted average period of 0.8 years. The fair value of shares that vested during the six months ended June 30, 2024 was $0.3 million.

Stock-based compensation expense related to stock options and restricted stock recorded in the accompanying condensed consolidated statements of operations is as follows (in thousands):

	Six months ended June 30,	
	2024	2023
Research and development	$ 905	$ 861
General and administrative	738	688
Total	$ 1,642	$ 1,549

The Company has not recognized and does not expect to recognize in the near future, any tax benefit related to employee stock-based compensation expense as a result of the full valuation allowance related to its net deferred tax assets.

11. Income taxes

No provision for federal, state, or foreign income taxes has been recorded for the six months ended June 30, 2024 and 2023. The Company has incurred net operating losses for all the periods presented and has not reflected any benefit for such net operating loss carryforwards in the accompanying condensed consolidated financial statements due to uncertainty around utilizing these tax attributes within their respective carryforward periods. The Company has recorded a full valuation allowance against all of its deferred tax assets as it is not more likely than not that such assets will be realized in the near future. The Company's policy is to recognize interest expense and penalties related to income tax matters as tax expense. For the six months ended June 30, 2024 and 2023, the Company has not recognized any interest or penalties related to income taxes.

12. Net loss per share attributable to common stockholders

Basic and diluted net loss per share was calculated as follows (in thousands, except share and per share amounts):

	Six months ended June 30,	
	2024	2023
Numerator:		
Net loss attributable to common stockholders	$ (25,028)	$ (24,606)
Denominator:		
Weighted-average common shares outstanding, basic and diluted	5,341,728	4,208,243
Net loss per share attributable to common stockholders, basic and diluted	$ (4.69)	$ (5.85)

The Company's potentially dilutive securities, which include convertible preferred stock, outstanding stock options, unvested restricted common stock, and convertible preferred stock warrants, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. 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 Company excluded the following from the computation of diluted net loss per share attributable to common stockholders at June 30, 2024 and 2023 because including them would have had an anti-dilutive effect:

	Six months ended June 30,	
	2024	2023
Conversion of outstanding convertible preferred stock	130,648,426	130,648,426
Options to purchase common stock	28,044,498	26,230,420
Unvested restricted common stock	506,187	1,163,434
Conversion of preferred stock warrant	1,602	1,602
Total	159,200,713	158,043,882

13. Employee benefit plan

On January 1, 2017, the Company's board of directors approved the Company's 401(k) retirement plan (the "401(k) Plan"). Employees of the Company are eligible to participate in the 401(k) Plan. Participants may contribute up to 100% of their annual compensation to the 401(k) Plan, subject to statutory limitations. Effective January 1, 2022, under the 401(k) Plan "Safe Harbor Match", the Company matches one hundred percent (100%) of the first three percent (3%) of employee contributions and these contributions vest in full at the time of match.

For the six months ended June 30, 2024 and 2023, the Company made matching contributions of $0.2 million.

14. Related parties

In September 2015, the Company entered into consulting agreements with its two founders, related parties who hold shares of the Company's common stock, to provide R&D and strategic planning services. For the six months ended June 30, 2024 and 2023, the Company recognized R&D expense totaling $0.1 million, related to work performed under the founder agreements. The Company had no amounts due to the founders at June 30, 2024. For both the six months ended June 30, 2024 and 2023, the Company recognized stock-based compensation expense totaling $0.1 million related to the consulting agreements.

In March 2019, the Company entered into a consulting agreement with an executive consultant, a related party who holds shares of the Company's common stock. For each of the six months ended June 30, 2024 and 2023, the Company recognized G&A expense totaling less than $0.1 million related to work performed under the consulting agreement. The Company had no amounts due to the consultant at June 30, 2024. For each of the six months ended June 30, 2024 and 2023, the Company recognized stock-based compensation expense totaling $0.1 million related to the consulting agreement.

15. Subsequent events

The Company evaluated subsequent events through August 1, 2024, the date on which the June 30, 2024 condensed consolidated financial statements were available to be issued. No subsequent events requiring disclosure were identified.

Through and including , 2024 (the 25th day after the commencement of this offering), all dealers that buy, sell or trade shares of our common stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to the dealers' obligation to deliver a prospectus when acting as underwriters and with respect to their unsold allotments or subscriptions.

shares

Common Stock

J.P. Morgan **Leerink Partners** **Piper Sandler**

William Blair

Part II

Information not required in prospectus

Item 13. Other expenses of issuance and distribution.

The following table indicates the costs and expenses, other than the underwriting discounts and commissions, payable by the registrant in connection with the offering described in this registration statement. All amounts are estimated except the Securities and Exchange Commission, or the SEC, registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and the Nasdaq Global Market initial listing fee.

	Amount
SEC registration fee	$11,070
FINRA filing fee	11,100
Nasdaq Global Market initial listing fee	*
Accountants' fees and expenses	*
Legal fees and expenses	*
Blue sky fees and expenses	*
Transfer agent's fees and expenses	*
Printing and engraving expenses	*
Miscellaneous	*
Total expenses	**$** *

* To be provided by amendment

Item 14. Indemnification of directors and officers.

As permitted by Section 102(b)(7) of the DGCL, we plan to include in our Restated Charter a provision to eliminate the personal liability of our directors for monetary damages for breach of their fiduciary duties as directors, subject to certain exceptions. In addition, our Restated Charter and Restated Bylaws will provide that we are required to indemnify our officers and directors under certain circumstances, including those circumstances in which indemnification would otherwise be discretionary, and we are required to advance expenses to our officers and directors as incurred in connection with proceedings against them for which they may be indemnified, in each case except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145(a) of the DGCL provides that a corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interest of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person's conduct was unlawful.

Section 145(b) of the DGCL provides that a corporation shall have the power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the

right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

We have entered into indemnification agreements with our directors and, prior to the completion of this offering, intend to enter into indemnification agreements with certain of our officers. These indemnification agreements will provide broader indemnity rights than those provided under the DGCL and our Restated Charter. These indemnification agreements are not intended to deny or otherwise limit third-party or derivative suits against us or our directors or officers, but to the extent a director or officer were entitled to indemnity or contribution under the indemnification agreement, the financial burden of a third-party suit would be borne by us, and we would not benefit from derivative recoveries against the director or officer. Such recoveries would accrue to our benefit but would be offset by our obligations to the director or officer under the indemnification agreement.

The underwriting agreement will provide that the underwriters are obligated, under certain circumstances, to indemnify our directors, officers and controlling persons against certain liabilities, including liabilities under the Securities Act.

We maintain directors' and officers' liability insurance for the benefit of our directors and officers.

Item 15. Recent sales of unregistered securities.

The following list sets forth information regarding all unregistered securities sold by us in the three years preceding the filing of this registration statement. None of the following transactions involved any underwriters, underwriting discounts or commissions, or any public offering. Unless otherwise specified above, we believe these transactions were exempt from registration under the Securities Act in reliance on Sections 3(a)(9) and 4(a)(2) of the Securities Act (and Regulation D or Regulation S promulgated thereunder) or Rule 701 promulgated under Section 3(b) of the Securities Act as transactions by an issuer not involving any public offering or under benefit plans and contracts relating to compensation as provided under Rule 701. The recipients of the securities in each of these transactions represented their intentions to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were placed on the share certificates issued in these transactions. All recipients had adequate access, through their relationships with us, to information about us. The sales of these securities were made without any general solicitation or advertising.

(a) Issuances of common stock, stock options and restricted shares pursuant to our equity compensation plans

In 2021, we granted stock options to purchase an aggregate of 8,203,100 shares of our common stock at a weighted-average exercise price of $0.21 to employees, directors and consultants. We also issued 64,259 shares of our common stock upon the exercise of stock options at a weighted-average exercise price of $0.29 per share.

In 2022, we granted stock options to purchase an aggregate of 17,562,710 shares of our common stock at a weighted-average exercise price of $0.71 to employees, directors and consultants. We also issued 224,245 shares of our common stock upon the exercise of stock options at a weighted-average exercise price of $0.19 per share.

In 2023, we granted stock options to purchase an aggregate of 2,144,445 shares of our common stock at a weighted-average exercise price of $0.78 to employees, directors and consultants. We also issued 482,700 shares of our common stock upon the exercise of stock options at a weighted-average exercise price of $0.38 per share.

Since January 1, 2024, we have granted stock options to purchase an aggregate of 4,466,785 shares of our common stock at a weighted-average exercise price of $0.92 to employees, directors and consultants.

In 2021, we issued 2,416,085 shares of restricted stock to certain directors and consultants for services rendered to the Company. The restricted stock awards vest in equal monthly installments over 48 months, starting on March 31, 2021. We also issued 190,827 shares of restricted stock to Ravi I. Thadhani, a member of our board of directors, for services. 25% of the restricted stock award vested on March 31, 2022, and the remaining 75% vests in equal monthly installments over the 36-month period that follows.

(b) Issuances of preferred stock

In March 2021 with subsequent closings through October 2021, we issued and sold an aggregate of 212,264,148 shares of our Series A Prime convertible preferred stock at a purchase price of $0.2120 per share for aggregate gross proceeds of $45.0 million.

In June 2022 and July 2022, we issued and sold an aggregate of 68,258,635 shares of our Series B convertible preferred stock at a purchase price of $1.4724 per share for aggregate gross proceeds of $100.5 million.

Item 16. Exhibits and financial statement schedules.

(a) Exhibits.

The exhibits listed below are filed as part of this registration.

Exhibit no.	Description of exhibit
1.1*	Form of Underwriting Agreement.
3.1*	Form of Amended and Restated Certificate of Incorporation of the Registrant (to be effective prior to the completion of this offering).
3.2*	Form of Amended and Restated Bylaws of the Registrant (to be effective prior to the completion of this offering).
4.1	Third Amended and Restated Investors' Rights Agreement, by and among the Registrant and certain of its stockholders, dated June 3, 2022.
4.2	Warrant to Purchase Stock, by and between Silicon Valley Bank and CAMP4 Therapeutics Corporation (f/k/a Marauder Therapeutics, Inc.), dated January 4, 2017.
5.1*	Opinion of Ropes & Gray LLP.
10.1+	Patent License Agreement by and between CAMP4 Therapeutics Corporation and the Whitehead Institute for Biomedical Research, dated as of October 23, 2019.
10.2+	First Amendment to Patent License Agreement by and between CAMP4 Therapeutics Corporation and the Whitehead Institute for Biomedical Research, dated as of December 14, 2021.
10.3+	Second Amendment to Patent License Agreement by and between CAMP4 Therapeutics Corporation and the Whitehead Institute for Biomedical Research, dated as of November 7, 2023.
10.4#	CAMP4 Therapeutics Corporation Amended and Restated 2016 Stock Option and Grant Plan, as amended, and form of award agreements thereunder.
10.5#*	CAMP4 Therapeutics Corporation 2024 Equity Incentive Plan.
10.6#*	Form of Non-Qualified Stock Option Award Agreement for Non-Employee Directors under the 2024 Equity Incentive Plan.
10.7#*	Form of Incentive Stock Option Award Agreement under the 2024 Equity Incentive Plan.
10.8#*	Form of Non-Qualified Stock Option Award Agreement under the 2024 Equity Incentive Plan.
10.9#*	Form of Restricted Stock Unit Award Agreement under the 2024 Equity Incentive Plan.
10.10#*	CAMP4 Therapeutics Corporation 2024 Employee Stock Purchase Plan.
10.11#*	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers.

Exhibit no.	Description of exhibit
10.12#*	CAMP4 Therapeutics Corporation Severance and Change in Control Plan.
10.13#*	CAMP4 Therapeutics Corporation Non-Employee Director Compensation Policy.
10.14	Amended Lease agreement by and between CAMP4 Therapeutics Corporation and ARE-MA Region 59, LLC, dated October 3, 2019.
10.15	Lease by and between CAMP4 Therapeutics Corporation and BCSP Pearl East Property LLC, dated January 3, 2023.
21.1	Subsidiaries of the Registrant.
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm
23.2*	Consent of Ropes & Gray LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature page).
107	Filing Fee Table.

* To be filed by amendment.

\# Indicates management contract or compensatory plan.

\+ Portions of this exhibit (indicated by asterisks) have been redacted pursuant to Item 601 of Regulation S-K because they are both not material and the registrant customarily and actually treats such information as private or confidential.

(b) Financial statement schedules.

Schedules not listed above have been omitted because the information required to be set forth therein is not applicable or is shown in the financial statements or notes thereto.

Item 17. Undertakings.

The undersigned Registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement, certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this Registration Statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this Registration Statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Signatures

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized in the City of Cambridge, Commonwealth of Massachusetts, on this 20th day of September, 2024.

CAMP4 Therapeutics Corporation

By: /s/ Josh Mandel-Brehm

Josh Mandel-Brehm
President and Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Josh Mandel-Brehm and Kelly Gold, and each of them, as his or her true and lawful agents, proxies and attorneys-in-fact, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Josh Mandel-Brehm Josh Mandel-Brehm	President, Chief Executive Officer and Director *(Principal Executive Officer)*	September 20, 2024
/s/ Kelly Gold Kelly Gold	Chief Financial Officer (*Principal Financial Officer and Principal Accounting Officer*)	September 20, 2024
/s/ Steven Holtzman Steven Holtzman	Director and Chair	September 20, 2024
/s/ James Boylan James Boylan	Director	September 20, 2024
/s/ Jorge Conde Jorge Conde	Director	September 20, 2024

Signature	Title	Date
/s/ Ingo Chakravarty Ingo Chakravarty	Director	September 20, 2024
/s/ Michael Higgins Michael Higgins	Director	September 20, 2024
/s/ Amir Nashat Amir Nashat, ScD	Director	September 20, 2024
/s/ Paula Ragan Paula Ragan, PhD	Director	September 20, 2024
/s/ Andrew J. Schwab Andrew J. Schwab	Director	September 20, 2024
/s/ Ravi I. Thadhani Ravi I. Thadhani, MD, MPH	Director	September 20, 2024
/s/ Richard Young Richard Young, PhD	Director	September 20, 2024

Exhibit 4.1

THIRD AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT

THIS THIRD AMENDED AND RESTATED INVESTORS' RIGHTS AGREEMENT (this "**Agreement**"), is made as of June 3, 2022, by and among Camp4 Therapeutics Corporation, a Delaware corporation (the "**Company**"), and each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor**".

RECITALS

WHEREAS, certain of the Investors (the "**Existing Investors**") hold shares of Registrable Securities (as defined in the Prior Agreement) and possess registration rights, information rights, rights of first offer, and other rights pursuant to a Second Amended and Restated Investors' Rights Agreement dated as of March 5, 2021, by and among the Company and the other parties thereto (the "**Prior Agreement**");

WHEREAS, Section 6.6 of the Prior Agreement provides that the Prior Agreement may be amended in its entirety by the written consent of the Company and the Requisite Preferred (as defined in the Prior Agreement);

WHEREAS, the undersigned parties who are Existing Investors constitute the Requisite Preferred (as defined in the Prior Agreement) and desire to amend and restate the Prior Agreement in its entirety and to accept the rights created pursuant to this Agreement in lieu of the rights granted to them under the Prior Agreement, and such undersigned parties have the right and authority to amend and restate the Prior Agreement to read in its entirety as set forth herein and be binding on all parties hereto; and

WHEREAS, certain of the Investors are parties to that certain Series B Preferred Stock Purchase Agreement dated as of the date hereof between the Company and certain of the Investors (the "**Purchase Agreement**"), under which certain of the Company's and such Investors' obligations are conditioned upon the execution and delivery of this Agreement by the parties hereto.

NOW, THEREFORE, in consideration of these premises and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree to amend and restate the Prior Agreement in its entirety as set forth herein, and the parties hereto further agree as follows:

1. Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means, with respect to any specified Person, any other Person who, directly or indirectly, controls, is controlled by, or is under common control with such Person, including without limitation any general partner, managing member, officer or director of such Person or any venture capital fund now or hereafter existing that is controlled by one or more general partners or managing members of, or shares the same management company with, such Person.

1.2 "**Board of Directors**" means the board of directors of the Company.

1.3 "**Certificate of Incorporation**" means the Company's Fourth Amended and Restated Certificate of Incorporation, as amended and/or restated from time to time.

1.4 "**Common Stock**" means shares of the Company's common stock, par value $0.0001 per share.

1.5 "**Competitor**" means a Person engaged, directly or indirectly (including through any partnership, limited liability company, corporation, joint venture or similar arrangement (whether now existing or formed hereafter)), in the research, development, or commercialization of technologies directed to the (a) control or regulation of gene expression or (b) analysis or mapping of signaling pathways responsible for gene expression, but shall not include (i) any financial investment firm or collective investment vehicle that, together with its Affiliates, holds less than twenty percent (20)% of the outstanding equity of any Competitor and does not, nor do any of its Affiliates, have a right to designate any members of the Board of Directors of any Competitor or (ii) any of AH Bio Fund I, L.P. ("**a16z**"), Polaris Partners VII, L.P. ("**Polaris**"), Kraft Group, 5AM Ventures VI, L.P. ("**5AM**"), Northpond Ventures II, LP ("**Northpond**") or Everest Aggregator, LP ("**Patient Square**") each for itself or as nominee, or any of their respective Affiliates.

1.6 "**Damages**" means any loss, damage, claim or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim or liability (or any action in respect thereof) arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.7 "**Derivative Securities**" means any securities or rights convertible into, or exercisable or exchangeable for (in each case, directly or indirectly), Common Stock, including options and warrants.

1.8 "**DPA**" means Section 721 of the Defense Production Act, as amended, including all implementing regulations thereof.

1.9 "**DPA Triggering Rights**" means (i) "control" (as defined in the DPA); (ii) access to any "material non-public technical information" (as defined in the DPA) in the possession of the Company; (iii) membership or observer rights on the Board of Directors or equivalent governing body of the Company or the right to nominate an individual to a position on the Board of Directors or equivalent governing body of the Company; (iv) any involvement, other than through the voting of shares, in substantive decision-making of the Company regarding (x) the use, development, acquisition or release of any Company "critical technology" (as defined in the DPA); (y) the use, development, acquisition, safekeeping, or release of "sensitive personal data" (as defined in the DPA) of U.S. citizens maintained or collected by the Company, or (z) the management, operation, manufacture, or supply of "covered investment critical infrastructure" (as defined in the DPA).

1.10 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.11 "**Excluded Registration**" means (i) a registration relating to the sale or grant of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, equity incentive or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

1.12 "**Foreign Person**" means either (i) a Person or government that is a "foreign person" within the meaning of the DPA or (ii) a Person through whose investment a "foreign person" within the meaning of the DPA would obtain any DPA Triggering Rights.

1.13 "**Form S-1**" means such form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.14 "**Form S-3**" means such form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits forward incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.15 "**GAAP**" means generally accepted accounting principles in the United States as in effect from time to time.

1.16 "**Holder**" means any holder of Registrable Securities who is a party to this Agreement.

1.17 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including, adoptive relationships, of a natural person referred to herein.

1.18 "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.19 "**IPO**" means the Company's first underwritten public offering of its Common Stock under the Securities Act.

1.20 "**Major Investor**" means each Investor that together with its Affiliates, holds at least 10,187,449 shares of Common Stock issued or issuable upon shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization of such shares); provided that each Investor, together with its Affiliates, shall constitute a single "Major Investor" for purposes hereof.

1.21 "**New Securities**" means, collectively, equity securities of the Company, whether or not currently authorized, as well as rights, options, or warrants to purchase such equity securities, or securities of any type whatsoever that are, or may become, convertible or exchangeable into or exercisable for such equity securities.

1.22 "**Person**" means any individual, corporation, partnership, trust, limited liability company, association or other entity.

1.23 "**Preferred Stock**" means, collectively, shares of the Company's Series A Prime Preferred Stock and Series B Preferred Stock.

1.24 "**Preferred Stock Directors**" means any director of the Company that the holders of record of a class of Preferred Stock, exclusively and as a separate class, are entitled to elect pursuant to the Certificate of Incorporation.

1.25 "**Registrable Securities**" means the following shares held by any of the Investors: (i) the Common Stock issuable or issued upon conversion of the Preferred Stock; (ii) any Common Stock, or any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company, acquired by the Investors; and (iii) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i) and (ii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Subsection 6.1, and excluding for purposes of Section 2 and Subsection 6.6 any shares for which registration rights have terminated pursuant to Subsection 2.13 of this Agreement.

1.26 "**Registrable Securities then outstanding**" means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.27 "**Restricted Securities**" means the securities of the Company required to be notated with the legend set forth in Subsection 2.12(b) hereof.

1.28 "**SEC**" means the Securities and Exchange Commission.

1.29 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.30 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.31 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.32 "**Selling Expenses**" means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel borne and paid by the Company as provided in Subsection 2.6.

1.33 "**Series A Prime Preferred Stock**" means shares of the Company's Series A Prime Preferred Stock, par value $0.0001 per share.

1.34 **Series B Preferred Stock**" means shares of the Company's Series B Preferred Stock, par value $0.0001 per share.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after the earlier of (i) five (5) years after the date of this Agreement or (ii) one hundred eighty (180) days after the effective date of the registration statement for the IPO, the Company receives a request from the holders of a majority of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement with respect to at least forty percent (40%) of the Registrable Securities then outstanding (or a lesser percent if the anticipated aggregate offering price, net of Selling Expenses, would exceed $10 million), then the Company shall (x) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (y) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsections 2.1(c) and 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least twenty percent (20%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price, net of Selling Expenses, of at least $3 million, then the Company shall (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days of the date the Demand Notice is given, and in each case, subject to the limitations of Subsections 2.1(c) and 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Subsection 2.1 a certificate signed by the Company's chief executive officer stating that in the good faith judgment of the Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than one hundred twenty (120) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than once in any twelve (12) month period; and provided further that the Company shall not register any securities for its own account or that of any other stockholder during such one hundred twenty (120) day period other than an Excluded Registration.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(a)(i) during the period that is sixty (60) days before the Company's good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration, provided that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) after the Company has effected two registrations pursuant to Subsection 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Subsection 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Subsection 2.1(b) (i) during the period that is thirty (30) days before the Company's good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration, provided that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (ii) if the Company has effected two registrations pursuant to Subsection 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Subsection 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one demand registration statement pursuant to Subsection 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Subsection 2.1(d); provided that if such withdrawal is during a period the Company has deferred taking action pursuant to Section 2.1(c), then the Initiating Holders may withdraw their request for registration and such registration will not be counted as "effected" for purposes of this Section 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its securities under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Subsection 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Subsection 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Subsection 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Subsection 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Subsection 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Subsection 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting; provided, however, that no Holder (or any of their assignees) shall be required to make any representations, warranties or indemnities except as they relate to such Holder's ownership of shares and authority to enter into the underwriting agreement and to such Holder's intended method of distribution, and the liability of such Holder shall be several and not joint, and limited to an amount equal to the net proceeds from the offering received by such Holder. Notwithstanding any other provision of this Subsection 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Subsection 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering, or (ii) the number of Registrable Securities included in the offering be reduced below twenty five percent (25%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering For purposes of the provision in this Subsection 2.3(b) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Subsection 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Subsection 2.3(a), fewer than fifty percent (50%) of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to sixty (60) days, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements, not to exceed $50,000, of one counsel for the selling Holders selected by Holders of a majority of the Registrable Securities to be registered ("**Selling Holder Counsel**"), shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Subsection 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Subsections 2.1(a) or 2.1(b), as the case may be; provided further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Subsections 2.1(a) or 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 (other than fees and disbursements of counsel to any Holder, other than the Selling Holder Counsel, which shall be borne solely by the Holder engaging such counsel) shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Subsection 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Subsections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Subsection 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Subsection 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Subsection 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Subsection 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either: (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Subsection 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Subsection 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Subsection 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided further that in no event shall a Holder's liability pursuant to this Subsection 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Subsection 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Subsection 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement or any provision(s) of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); and (ii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent from the holders of at least 67% of the then outstanding shares of Preferred Stock (the "**Requisite Preferred**"), enter into any agreement with any holder or prospective holder of any securities of the Company that would provide to such holder or prospective holder the right to include securities in any registration on other than either a pro rata basis with respect to the Registrable Securities or on a subordinate basis after all Holders have had the opportunity to include in the registration and offering all shares of Registrable Securities that they wish to so include; provided that this limitation shall not apply to Registrable Securities acquired by any additional Investor that becomes a party to this Agreement in accordance with Subsection 6.9.

2.11 "Market Stand-off" Agreement. Each Investor hereby agrees that it 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 registration by the Company for its own behalf of shares of its Common Stock or any other equity securities under the Securities Act on a registration statement on Form S-1 and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days in the case of the IPO), (i) 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 Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for such offering or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Subsection 2.11 shall apply only to the IPO, and shall not apply to (a) the sale of any shares to an underwriter pursuant to an underwriting agreement (b) the sale of any shares acquired in the IPO or on the open market following the effectiveness of the registration statement for the IPO, (c) the establishment of a trading plan pursuant to Rule 10b5-1, provided that such plan does not permit transfers during the restricted period, or (d) the transfer of any shares to any trust for the direct or indirect benefit of the Investor or the immediate family of the Investor, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided further that any such transfer shall not involve a disposition for value, and shall be applicable to the Investors only if all officers, directors and stockholders individually owning more than one percent (1%) of the Company's outstanding Common Stock (after giving effect to conversion into Common Stock of all outstanding Preferred Stock) are subject to the same restrictions. The underwriters in connection with such registration are intended third-party beneficiaries of this Subsection 2.11 and shall have the right, power and authority to enforce the provisions hereof as though they were a party hereto. Each Investor further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with such registration that are consistent with this Subsection 2.11 or that are necessary to give further effect thereto. Any discretionary waiver or termination of the restrictions of any or all of such agreements by the Company or the underwriters shall apply pro rata to all Company stockholders that are subject to such agreements, based on the number of shares subject to such agreements.

2.12 Restrictions on Transfer.

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Investor will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Investor to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement. Notwithstanding the foregoing, the Company shall not require any transferee of shares pursuant to an effective registration statement or, following the IPO, SEC Rule 144, in each case, to be bound by the terms of this Agreement.

(b) Each certificate, instrument, or book entry representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Subsection 2.12(c)) be notated with a legend substantially in the following form:

> THE SHARES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, OR APPLICABLE STATE SECURITIES LAWS. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SHARES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN INVESTOR RIGHTS' AGREEMENT, AS MAY BE AMENDED FROM TIME TO TIME, BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Investors consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Subsection 2.12.

(c) The holder of such Restricted Securities, by acceptance of ownership thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction or following the IPO, the transfer is made pursuant to SEC Rule 144, the holder thereof shall give notice to the Company of such holder's intention to effect such sale, pledge, or transfer. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the holder to the Company. The Company will not require such a legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144; or (y) in any transaction in which such holder distributes Restricted Securities to an Affiliate of such holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Subsection 2.12. Each certificate, instrument, or book entry representing the Restricted Securities transferred as above provided shall be notated with, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Subsection 2.12(b), except that such certificate instrument, or book entry shall not be notated with such restrictive legend if, in the opinion of counsel for such holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Subsections 2.1 or 2.2 shall terminate upon the earliest to occur of:

(a) the closing of a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation;

(b) such time after consummation of the IPO as Rule 144 or other similar exemption under the Securities Act is available for the sale of all of such Holder's shares without limitation during a three-month period without registration; and

(c) the fifth anniversary of the IPO.

3. Information and Observer Rights.

3.1 Delivery of Financial Statements. The Company shall deliver to each Major Investor, provided that the Board of Directors has not reasonably determined that such Major Investor is a Competitor:

(a) as soon as practicable, but in any event within six (6) months after the end of each fiscal year of the Company (i) a balance sheet as of the end of such year, (ii) statements of income and of cash flows for such year, and a comparison between (x) the actual amounts as of and for such fiscal year and (y) the comparable amounts for the prior year and as included in the Budget (as defined in Subsection 3.1(d)) for such year, with an explanation of any material differences between such amounts and a schedule as to the sources and applications of funds for such year, and (iii) a statement of stockholders' equity as of the end of such year, all such financial statements prepared in accordance with GAAP and audited and certified by independent public accountants of nationally recognized standing selected by the Company;

(b) as soon as practicable, but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, a statement showing the number of shares of each class and series of capital stock and securities convertible into or exercisable for shares of capital stock outstanding at the end of the period, the Common Stock issuable upon conversion or exercise of any outstanding securities convertible or exercisable for Common Stock and the exchange ratio or exercise price applicable thereto, and the number of shares of issued stock options and stock options not yet issued but reserved for issuance, if any, all in sufficient detail as to permit the Major Investors to calculate their respective percentage equity ownership in the Company, and certified by the chief financial officer or chief executive officer of the Company as being true, complete, and correct;

(c) as soon as practicable, but in any event within forty-five (45) days of the end of each quarter of each fiscal year, an unaudited income statement and statement of cash flows for such quarter, and an unaudited balance sheet and statement of stockholders' equity as of the end of such quarter, all prepared in accordance with GAAP (except that such financial statements may (i) be subject to normal year-end audit adjustments and (ii) not contain all notes thereto that may be required in accordance with GAAP);

(d) as soon as practicable, but in any event thirty (30) days before the end of each fiscal year, a budget and business plan for the next fiscal year (collectively, the "**Budget**"), prepared on a monthly basis, including balance sheets, income statements, and statements of cash flow for such months and, promptly after prepared, any other budgets or revised budgets prepared by the Company (such budget and business plan that is approved by the Board of Directors (including the vote of at least four of the Preferred Stock Directors or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, including the vote of at least a majority of the Preferred Stock Directors then seated));

(e) such other information relating to the financial condition, business, or corporate affairs of the Company as any Major Investor may from time to time reasonably request; provided, however, that the Company shall not be obligated under this Subsection 3.1 to provide information (i) that the Company reasonably determines in good faith to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in a form acceptable to the Company); or (ii) the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

If, for any period, the Company has any subsidiary whose accounts are consolidated with those of the Company, then in respect of such period the financial statements delivered pursuant to the foregoing sections shall be the consolidated and consolidating financial statements of the Company and all such consolidated subsidiaries.

Notwithstanding anything else in this Subsection 3.1 to the contrary, the Company may cease providing the information set forth in this Subsection 3.1 during the period starting with the date sixty (60) days before the Company's good-faith estimate of the date of filing of a registration statement if it reasonably concludes it must do so to comply with the SEC rules applicable to such registration statement and related offering; provided that the Company's covenants under this Subsection 3.1 shall be reinstated at such time as the Company is no longer actively employing its commercially reasonable efforts to cause such registration statement to become effective.

3.2 Inspection. The Company shall permit each Major Investor (provided that the Board of Directors has not reasonably determined that such Major Investor is a Competitor), at such Major Investor's expense, to visit and inspect the Company's properties; examine its books of account and records; and discuss the Company's affairs, finances, and accounts with its officers, during normal business hours of the Company as may be reasonably requested by the Major Investor; provided, however, that the Company shall not be obligated pursuant to this Subsection 3.2 to provide access to any information that it reasonably and in good faith considers to be a trade secret or confidential information (unless covered by an enforceable confidentiality agreement, in form acceptable to the Company) or the disclosure of which would adversely affect the attorney-client privilege between the Company and its counsel.

3.3 Observer Rights.

(a) As long as 5AM holds at least 11,321,376 shares of Common Stock issued or issuable upon shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization of such shares), the Company shall invite a representative of 5AM to attend meetings of the Board of Directors in a nonvoting observer capacity, and in this respect the Company shall give such representative copies of any notices, minutes, consents, and other materials related to each such meeting that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel, result in disclosure of trade secrets or a conflict of interest, would violate any agreement with any third party, or if such Investor or its representative is a Competitor. The initial representative of 5AM is Pengpeng Li.

(b) As long as Northpond holds at least 8,269,463 shares of Common Stock issued or issuable upon shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization of such shares), the Company shall invite a representative of Northpond to attend meetings of the Board of Directors in a nonvoting observer capacity, and in this respect the Company shall give such representative copies of any notices, minutes, consents, and other materials related to each such meeting that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel, result in disclosure of trade secrets or a conflict of interest, would violate any agreement with any third party, or if such Investor or its representative is a Competitor. The initial representative of Northpond is Shaan C. Gandhi.

(c) As long as Patient Square holds at least 13,583,265 shares of Common Stock issued or issuable upon shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization of such shares), the Company shall invite a representative of Patient Square to attend meetings of the Board of Directors in a nonvoting observer capacity, and in this respect the Company shall give such representative copies of any notices, minutes, consents, and other materials related to each such meeting that it provides to its directors at the same time and in the same manner as provided to such directors; provided, however, that such representative shall agree to hold in confidence all information so provided; and provided further, that the Company reserves the right to withhold any information and to exclude such representative from any meeting or portion thereof if access to such information or attendance at such meeting could adversely affect the attorney-client privilege between the Company and its counsel, result in disclosure of trade secrets or a conflict of interest, would violate any agreement with any third party, or if such Investor or its representative is a Competitor.

3.4 Termination of Information and Observer Rights. The covenants set forth in Subsection 3.1, Subsection 3.2 and Subsection 3.3 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon the closing of a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation, whichever event occurs first.

3.5 Confidentiality. Each Investor agrees that such Investor will keep confidential and will not disclose, divulge, or use for any purpose (other than to monitor its investment in the Company) any confidential information obtained from the Company pursuant to the terms of this Agreement (including notice of the Company's intention to file a registration statement), unless such confidential information (a) is known or becomes known to the public in general (other than as a result of a breach of this Subsection 3.5 by such Investor), (b) is or has been independently developed or conceived by such Investor without use of the Company's confidential information, or (c) is or has been made known or disclosed to such Investor by a third party without a breach of any obligation of confidentiality such third party may have to the Company; provided, however, that an Investor may disclose confidential information (i) to its attorneys, accountants, consultants, and other professionals to the extent necessary to obtain their services in connection with monitoring its investment in the Company; (ii) to any prospective purchaser of any Registrable Securities from such Investor, if such prospective purchaser agrees to be bound by the provisions of this Subsection 3.5; (iii) to any existing or prospective Affiliate, partner, member, stockholder, or wholly owned subsidiary of such Investor in the ordinary course of business, provided that such Investor informs such Person that such information is confidential and directs such Person to maintain the confidentiality of such information; or (iv) as may otherwise be required by law, regulation, rule, court order or subpoena, provided that, to the extent permitted by applicable law, such Investor promptly notifies the Company of such disclosure and takes reasonable steps to minimize the extent of any such required disclosure.

3.6 Limitation on Foreign Person Investors. Notwithstanding the covenants set forth in Section 3.1 and Section 3.2, the Company shall not provide any Investor that is a Foreign Person access to any "material non-public technical information" within the meaning of the DPA.

4. Rights to Future Stock Issuances.

4.1 Right of First Offer. Subject to the terms and conditions of this Subsection 4.1 and applicable securities laws, if the Company proposes to offer or sell any New Securities, the Company shall first offer such New Securities to each Major Investor. A Major Investor shall be entitled to apportion the right of first offer hereby granted to it in such proportions as it deems appropriate, among (i) itself and (ii) its Affiliates, provided that each such Affiliate agrees to enter into this Agreement and the Third Amended and Restated Voting Agreement of even date herewith among the Company, the Investors and other parties named therein, as an "Investor" under each such agreement.

(a) The Company shall give notice (the "**Offer Notice**") to each Major Investor, stating (i) its bona fide intention to offer such New Securities, (ii) the number of such New Securities to be offered, and (iii) the price and terms, if any, upon which it proposes to offer such New Securities.

(b) By notification to the Company within twenty (20) days after the Offer Notice is given, each Major Investor may elect to purchase or otherwise acquire, at the price and on the terms specified in the Offer Notice, up to that portion of such New Securities which equals the proportion that the Common Stock then held by such Major Investor (including all shares of Common Stock then issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held by such Major Investor) bears to the total Common Stock of the Company then outstanding (assuming full conversion and/or exercise, as applicable, of all Preferred Stock and any other Derivative Securities then outstanding). At the expiration of such twenty (20) day period, the Company shall promptly notify each Major Investor that elects to purchase or acquire all the shares available to it (each, a "**Fully Exercising Investor**") of any other Major Investor's failure to do likewise. During the ten (10) day period commencing after the Company has given such notice, each Fully Exercising Investor may, by giving notice to the Company, elect to purchase or acquire, in addition to the number of shares specified above, up to that portion of the New Securities for which Major Investors were entitled to subscribe but that were not subscribed for by the Major Investors which is equal to the proportion that the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of Preferred Stock and any other Derivative Securities then held, by such Fully Exercising Investor bears to the Common Stock issued and held, or issuable (directly or indirectly) upon conversion and/or exercise, as applicable, of the Preferred Stock and any other Derivative Securities then held, by all Fully Exercising Investors who wish to purchase such unsubscribed shares. The closing of any sale pursuant to this Subsection 4.1(b) shall occur within the later of one hundred and twenty (120) days of the date that the Offer Notice is given and the date of initial sale of New Securities pursuant to Subsection 4.1(c).

(c) If all New Securities referred to in the Offer Notice are not elected to be purchased or acquired as provided in Subsection 4.1(b), the Company may, during the ninety (90) day period following the expiration of the periods provided in Subsection 4.1(b), offer and sell the remaining unsubscribed portion of such New Securities to any Person or Persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Offer Notice. If the Company does not enter into an agreement for the sale of the New Securities within such period, or if such agreement is not consummated within thirty (30) days of the execution thereof, the right provided hereunder shall be deemed to be revived and such New Securities shall not be offered unless first reoffered to the Major Investors in accordance with this Subsection 4.1.

(d) The right of first offer in this Subsection 4.1 shall not be applicable to (i) Exempted Securities (as defined in the Certificate of Incorporation); and (ii) shares of Common Stock issued in the IPO.

4.2 Termination. The covenants set forth in Subsection 4.1 shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon the closing of a Deemed Liquidation Event, as such term is defined in the Company's Certificate of Incorporation, whichever event occurs first.

4.3 Limitation on Foreign Person Investors. Notwithstanding the covenants set forth in Subsection 4.1 and Subsection 4.2, no Investor that is a Foreign Person shall be permitted to obtain greater than nine and nine-tenths percent (9.9%) of the outstanding voting shares of the Company.

5. Additional Covenants.

5.1 Insurance. For so long as any Preferred Stock Directors are serving on the Board of Directors, the Company shall not cease to maintain a Directors and Officers liability insurance policy in an amount of at least $3,000,000 unless approved by all such Preferred Stock Directors, and the Company shall annually, within one hundred twenty (120) days after the end of each fiscal year of the Company, deliver to the holders of Preferred Stock a certification that such a Directors and Officers liability insurance policy remains in effect.

5.2 Employee Agreements. The Company will cause (i) each Person now or hereafter employed by it or by any subsidiary (or engaged by the Company or any subsidiary as a consultant/independent contractor) with access to confidential information and/or trade secrets to enter into a nondisclosure, assignment of proprietary rights and developments and nonsolicitation agreement, substantially in the form approved by the Board of Directors, including at least four of the Preferred Stock Directors or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, including at least a majority of the Preferred Stock Directors then seated; and (ii) each employee designated by at least four of the Preferred Stock Directors or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, at least a majority of the Preferred Stock Directors then seated to enter into a noncompetition agreement designed with the advice of counsel. In addition, the Company shall not amend, modify, terminate, waive, or otherwise alter, in whole or in part, any of the above-referenced agreements or any restricted stock agreement between the Company and any employee, without the consent of at least four of the Preferred Stock Directors or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, at least a majority of the Preferred Stock Directors then seated.

5.3 Employee Stock. Unless otherwise approved by the Board of Directors, including at least four of the Preferred Stock Directors or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, including at least a majority of the Preferred Stock Directors then seated, all future employees and consultants of the Company who purchase, receive options to purchase, or receive awards of shares of the Company's capital stock after the date hereof shall be required to execute restricted stock or option agreements, as applicable, providing for (i) vesting of shares over a four (4) year period, with the first twenty-five percent (25%) of such shares vesting following twelve (12) months of continued employment or service, and the remaining shares vesting in equal monthly installments over the following thirty-six (36) months, and (ii) a market stand-off provision substantially similar to that in Subsection 2.11. Without the prior approval by the Board of Directors, including at least four of the Preferred Stock Directors or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, including at least a majority of the Preferred Stock Directors then seated, the Company shall not amend, modify, terminate, waive or otherwise alter, in whole or in part, any stock purchase, stock restriction or option agreement with any existing employee or service provider if such amendment would cause it to be inconsistent with this Section 5.3. In addition, unless otherwise approved by the Board of Directors, including at least four of the Preferred Stock Directors or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, including at least a majority of the Preferred Stock Directors then seated, the Company shall retain (and not waive) a "right of first refusal" on employee transfers until the Company's IPO and shall have the right to repurchase unvested shares at cost upon termination of employment of a holder of restricted stock.

5.4 Employee Matters. The Company shall maintain a code of conduct governing appropriate workplace behavior and an Anti-Harassment and Anti-Discrimination Policy.

5.5 Qualified Small Business Stock. The Company shall use commercially reasonable efforts to cause the shares of Series B Preferred Stock issued pursuant to the Purchase Agreement, as well as any shares into which such shares are converted, within the meaning of Section 1202(f) of the Internal Revenue Code (the "**Code**"), to constitute "qualified small business stock" as defined in Section 1202(c) of the Code; provided, however, that such requirement shall not be applicable if the Board of Directors determines, in its good-faith business judgment, that such qualification is inconsistent with the best interests of the Company. The Company shall submit to its stockholders (including the Investors) and to the Internal Revenue Service any reports that may be required under Section 1202(d)(1)(C) of the Code and the regulations promulgated thereunder. In addition, within (a) twenty (20) business days after any Investor's written request therefor and (b) twenty (20) business days before the consummation of a Deemed Liquidation Event (as defined in the Certificate of Incorporation) or IPO, the Company shall deliver to the Investors a certificate in substantially the form of Annex 1. The Company shall use commercially reasonable efforts to ensure the accuracy of any such statement and any such factual information, but in no event shall the Company be liable to the Investors for any damages arising from any errors in the Company's determination with respect to the applicability or interpretation of Section 1202 of the Code, unless such determination shall have been given by the Company in a manner either grossly negligent or fraudulent.

5.6 Matters Requiring Investor Director Approval. The Company hereby covenants and agrees with each of the Investors that it shall not, without approval of the Board of Directors, which approval must include the affirmative vote of four of the five Preferred Stock Directors (or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, at least a majority of the Preferred Stock Directors then serving):

(a) make, or permit any subsidiary to make, any loan or advance to, or own any stock or other securities of, any subsidiary or other corporation, partnership, or other entity unless it is wholly owned by the Company;

(b) make, or permit any subsidiary to make, any loan or advance to any Person, including, without limitation, any employee or director of the Company or any subsidiary, except advances and similar expenditures in the ordinary course of business or under the terms of an employee stock or option plan approved by the Board of Directors;

(c) guarantee, directly or indirectly, or permit any subsidiary to guarantee, directly or indirectly, any indebtedness except for trade accounts of the Company or any subsidiary arising in the ordinary course of business;

(d) make any investment inconsistent with any investment policy approved by the Board of Directors;

(e) incur any aggregate indebtedness in excess of $250,000 in the aggregate that is not already included in a budget approved by the Board of Directors, other than trade credit incurred in the ordinary course of business;

(f) otherwise enter into or be a party to any transaction with any director, officer, or employee of the Company or any "associate" (as defined in Rule 12b-2 promulgated under the Exchange Act) of any such Person, except for transactions contemplated by this Agreement, the Purchase Agreement, or transactions made in the ordinary course of business and pursuant to reasonable requirements of the Company's business and upon fair and reasonable terms that are approved by a majority of the Board of Directors;

(g) hire, terminate, or change the compensation of the executive officers, including approving any option grants or stock awards to executive officers;

(h) change the principal business of the Company, enter new lines of business, or exit the current line of business;

(i) sell, assign, license, pledge, or encumber material technology or intellectual property, other than licenses granted in the ordinary course of business; or

(j) enter into any corporate strategic relationship involving the payment, contribution, or assignment by the Company or to the Company of money or assets greater than $100,000.

5.7 Board Matters. The Company shall reimburse the nonemployee directors and observers for all reasonable out-of-pocket travel expenses incurred in connection with attending meetings of the Board of Directors. Unless otherwise determined by the vote of a majority of the directors then in office, including at least four of the Preferred Stock Directors or, if fewer than five Preferred Stock Directors are then serving on the Board of Directors, including at least a majority of the Preferred Stock Directors then seated, the Board of Directors shall meet quarterly in accordance with an agreed-upon schedule. The Company shall maintain an audit committee and a compensation committee, each of which shall consist solely of non-management directors. Each Preferred Stock Director shall be entitled in such person's discretion to be a member of any committee of the Board of Directors.

5.8 Successor Indemnification. If the Company or any of its successors or assignees consolidates with or merges into any other Person and is not the continuing or surviving corporation or entity of such consolidation or merger, then to the extent necessary, proper provision shall be made so that the successors and assignees of the Company assume the obligations of the Company with respect to indemnification of members of the Board of Directors as in effect immediately before such transaction, whether such obligations are contained in the Company's Bylaws, the Certificate of Incorporation, or elsewhere, as the case may be.

5.9 Expenses of Counsel. In the event of a transaction which is a Sale of the Company (as defined in the Third Amended and Restated Voting Agreement of even date herewith among the Investors, the Company and the other parties named therein), the reasonable fees and disbursements, not to exceed $50,000, of one counsel (the "**Investor Counsel**") for the Major Investors, in their capacities as stockholders, shall be borne and paid by the Company. At the outset of considering a transaction which, if consummated would constitute a Sale of the Company, the Company shall obtain the ability to share with the Investor Counsel (and such counsel's clients) and shall share the confidential information (including, without limitation, the initial and all subsequent drafts of memoranda of understanding, letters of intent and other transaction documents and related noncompete, employment, consulting and other compensation agreements and plans) pertaining to and memorializing any of the transactions which, individually or when aggregated with others would constitute the Sale of the Company. The Company shall be obligated to share (and cause the Company's counsel and investment bankers to share) such materials when distributed to the Company's executives and/or any one (1) or more of the other parties to such transaction(s). In the event that Investor Counsel deems it appropriate, in its reasonable discretion, to enter into a joint defense (or common interest) agreement or other arrangement to enhance the ability of the parties to protect their communications and other reviewed materials under the attorney client privilege, the Company shall, and shall direct its counsel to, execute and deliver to Investor Counsel and its clients such an agreement in form and substance reasonably acceptable to Investor Counsel and the Company's counsel. In the event that one (1) or more of the other party or parties to such transactions require the clients of Investor Counsel to enter into a confidentiality agreement and/or joint defense (or common interest) agreement in order to receive such information, then the Company shall share whatever information can be shared without entry into such agreement and shall, at the same time, in good faith work expeditiously to enable Investor Counsel and its clients to negotiate and enter into the appropriate agreement(s) without undue burden to the clients of Investor Counsel.

5.10 Indemnification Matters. The Company hereby acknowledges that one (1) or more of the directors nominated to serve on the Board of Directors by the Investors (each a "**Fund Director**") may have certain rights to indemnification, advancement of expenses and/or insurance provided by one or more of the Investors and certain of their Affiliates (collectively, the "**Fund Indemnitors**"). The Company hereby agrees (a) that it is the indemnitor of first resort (*i.e.*, its obligations to any such Fund Director are primary and any obligation of the Fund Indemnitors to advance expenses or to provide indemnification for the same expenses or liabilities incurred by such Fund Director are secondary), (b) that it shall be required to advance the full amount of expenses incurred by such Fund Director and shall be liable for the full amount of all expenses, judgments, penalties, fines and amounts paid in settlement by or on behalf of any such Fund Director to the extent legally permitted and as required by the Company's Certificate of Incorporation or Bylaws of the Company (or any agreement between the Company and such Fund Director), without regard to any rights such Fund Director may have against the Fund Indemnitors, and, (c) that it irrevocably waives, relinquishes and releases the Fund Indemnitors from any and all claims against the Fund Indemnitors for contribution, subrogation or any other recovery of any kind in respect thereof. The Company further agrees that no advancement or payment by the Fund Indemnitors on behalf of any such Fund Director with respect to any claim for which such Fund Director has sought indemnification from the Company shall affect the foregoing and the Fund Indemnitors shall have a right of contribution and/or be subrogated to the extent of such advancement or payment to all of the rights of recovery of such Fund Director against the Company. The Fund Directors and the Fund Indemnitors are intended third-party beneficiaries of this Section 5.10 and shall have the right, power and authority to enforce the provisions of this Section 5.10 as though they were a party to this Agreement.

5.11 Right to Conduct Activities. The Company hereby agrees and acknowledges that each of a16z, Polaris, Kraft Group, Jianxin Capital, 5AM, Northpond and Patient Square (together with each of their Affiliates) (each, a "**VC Fund**") is a professional investment organization, and as such invests in numerous portfolio companies, some of which may compete directly or indirectly with the Company's business (as currently conducted or as currently propose to be conducted). Nothing in this Agreement shall preclude or in any way restrict the Investors from evaluating or purchasing securities, including publicly traded securities, of a particular enterprise, or investing or participating in any particular enterprise whether or not such enterprise has products or services which compete with those of the Company; and the Company hereby agrees that, to the extent permitted under applicable law, no VC Fund shall be liable to the Company for any claim arising out of, or based upon, (i) the investment by such VC Fund in any entity competitive with the Company, or (ii) actions taken by any partner, officer, employee or other representative of such VC Fund to assist any such competitive company, whether or not such action was taken as a member of the board of directors of such competitive company or otherwise, and whether or not such action has a detrimental effect on the Company; provided, however, that the foregoing shall not relieve (x) any of the Investors from liability associated with the unauthorized disclosure of the Company's confidential information obtained pursuant to this Agreement, or (y) any director or officer of the Company from any liability associated with his or her fiduciary duties to the Company.

5.12 FCPA. The Company covenants that it shall not (and shall not permit any of its subsidiaries or Affiliates or any of its or their respective directors, officers, managers, employees, independent contractors, representatives or agents to) promise, authorize or make any payment to, or otherwise contribute any item of value to, directly or indirectly, to any third party, including any Non-U.S. Official (as such term is defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended (the "**FCPA**")), in each case, in violation of the FCPA, the U.K. Bribery Act, or any other applicable anti-bribery or anti-corruption law. The Company further covenants that it shall (and shall cause each of its subsidiaries and Affiliates to) cease all of its or their respective activities, as well as remediate any actions taken by the Company, its subsidiaries or Affiliates, or any of their respective directors, officers, managers, employees, independent contractors, representatives or agents in violation of the FCPA, the U.K. Bribery Act, or any other applicable anti-bribery or anti-corruption law. The Company further covenants that it shall (and shall cause each of its subsidiaries and Affiliates to) maintain systems of internal controls (including, but not limited to, accounting systems, purchasing systems and billing systems) to ensure compliance with the FCPA, the U.K. Bribery Act, or any other applicable anti-bribery or anti-corruption law. Upon request, the Company agrees to provide responsive information and/or certifications concerning its compliance with applicable anti-corruption laws. The Company shall promptly notify each Investor if the Company becomes aware of any Enforcement Action (as defined in the Purchase Agreement). The Company shall, and shall cause any direct or indirect subsidiary or entity controlled by it, whether now in existence or formed in the future, to comply with the FCPA. The Company shall use its best efforts to cause any direct or indirect subsidiary, whether now in existence or formed in the future, to comply in all material respects with all applicable laws.

5.13 CFIUS and Foreign Person Limitations.

(a) Unless otherwise approved by the Board of Directors, the Company will not provide to any Foreign Person any DPA Triggering Rights. No Investor who is a Foreign Person shall be permitted to obtain any DPA Triggering Rights or a voting equity interest in the Company that exceeds nine and nine-tenths percent (9.9%) of the Company's total voting securities pursuant to the Purchase Agreement, Section 4 of this Agreement, or otherwise, including by way of any secondary transaction(s), without the approval of the Board of Directors.

(b) Each Investor covenants that it will notify the Company in advance of permitting any Foreign Person affiliated with Investor, whether affiliated as a limited partner or otherwise, to obtain through Investor any DPA Triggering Rights.

5.14 Termination of Covenants. The covenants set forth in this Section 5, except for Subsection 5.7 and 5.8, shall terminate and be of no further force or effect (i) immediately before the consummation of the IPO, (ii) when the Company first becomes subject to the periodic reporting requirements of Section 12(g) or 15(d) of the Exchange Act, or (iii) upon a Deemed Liquidation Event, as such term is defined in the Certificate of Incorporation, whichever event occurs first.

6. Miscellaneous.

6.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate of a Holder; (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; (iii) together with its Affiliates, acquires at least 5% of Registrable Securities held by the transferor or (iv) who is already a Holder of Registrable Securities; provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Subsection 2.11 and (z) the Board of Directors has not reasonably determined that such transferee is a Competitor. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate or stockholder of a Holder; (2) who is a Holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided further that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.2 Governing Law. This Agreement shall be governed by the internal law of the State of Delaware, without regard to conflict of law principles that would result in the application of any law other than the law of the State of Delaware.

6.3 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, *e.g.*, www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes**.**

6.4 Titles and Subtitles. The titles and subtitles used in this Agreement are for convenience only and are not to be considered in construing or interpreting this Agreement.

6.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or (i) personal delivery to the party to be notified; (ii) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (iii) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (iv) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on Schedule A hereto, or to the principal office of the Company and to the attention of the Chief Executive Officer, in the case of the Company, or to such address as subsequently modified by written notice given in accordance with this Subsection 6.5. If notice is given to the Company, a copy (which shall not constitute notice) shall also be sent to Ropes & Gray LLP, The Prudential Tower, 800 Boylston Street, Boston, MA 02199, Attention: Marc A. Rubenstein, Telephone: 617-951-7826.

6.6 Amendments and Waivers. Any term of this Agreement may be amended, modified or terminated and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the Requisite Preferred; provided that the Company may in its sole discretion waive compliance with Subsection 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Subsection 2.12(c) shall be deemed to be a waiver); and provided further that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, this Agreement may not be amended, modified or terminated and the observance of any term hereof may not be waived with respect to any Investor without the written consent of such Investor, unless such amendment, modification, termination, or waiver applies to all Investors in the same fashion (it being agreed that a waiver of the provisions of Section 4 with respect to a particular transaction shall be deemed to apply to all Investors in the same fashion if such waiver does so by its terms, notwithstanding the fact that certain Investors may nonetheless, by agreement with the Company, purchase securities in such transaction; provided that in the event of any such waiver of the provisions of Section 4 with respect to a particular issuance of New Securities, if any of the Major Investors purchase securities in such offering then each Major Investor shall have the right to participate in such offering by purchasing up to a portion of the securities that it would be entitled to pursuant to the provisions of Section 4 in the absence of such waiver, ratably adjusted to match the highest portion of such entitlement represented by the securities purchased by the participating Major Investor(s)). Notwithstanding the foregoing: (i) Subsection 3.3(a) and this Subsection 6.6(i) may not be amended, terminated, modified or waived without the approval of 5AM; (ii) the foregoing sentence, Subsection 1.20 (with respect to the rights of Northpond), Subsection 3.3(b) and this Subsection 6.6(ii) may not be amended, terminated, modified or waived without the approval of Northpond; (iii) Subsection 3.3(c), this Subsection 6.6(iii) and Subsection 6.6(iv) may not be amended, terminated, modified or waived without the approval of Patient Square; (iv) Subsection 1.5 and Subsection 5.11 may not be amended, terminated, modified or waived in a manner that adversely affects Patient Square without the approval of Patient Square; and (v) Subsection 1.20 may not be amended, terminated, modified or waived in a manner that would make an existing Major Investor, as of the date of this Agreement, ineligible as a Major Investor without the approval of such Major Investor. Notwithstanding the foregoing, Schedule A hereto may be amended by the Company from time to time to add transferees of any Registrable Securities in compliance with the terms of this Agreement without the consent of the other parties hereto; and Schedule A hereto may also be amended by the Company after the date hereof without the consent of the other parties hereto to add information regarding any additional Investor who becomes a party to this Agreement in accordance with Subsection 6.9. The Company shall give prompt notice of any amendment, modification or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, modification, termination, or waiver. Any amendment, modification, termination, or waiver effected in accordance with this Subsection 6.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

6.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

6.8 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

6.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of Series B Preferred Stock after the date hereof, whether pursuant to the Purchase Agreement or otherwise, any purchaser of such shares of Series B Preferred Stock may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

6.10 Entire Agreement. This Agreement (including any Schedules and Exhibits hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled. Upon the effectiveness of this Agreement, the Prior Agreement shall be deemed amended and restated and superseded and replaced in its entirety by this Agreement, and shall be of no further force or effect.

6.11 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of Massachusetts and to the jurisdiction of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Massachusetts or the United States District Court for the District of Massachusetts, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

WAIVER OF JURY TRIAL: EACH PARTY HEREBY WAIVES ITS RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS AGREEMENT, THE OTHER TRANSACTION DOCUMENTS, THE SECURITIES OR THE SUBJECT MATTER HEREOF OR THEREOF. THE SCOPE OF THIS WAIVER IS INTENDED TO BE ALL-ENCOMPASSING OF ANY AND ALL DISPUTES THAT MAY BE FILED IN ANY COURT AND THAT RELATE TO THE SUBJECT MATTER OF THIS TRANSACTION, INCLUDING, WITHOUT LIMITATION, CONTRACT CLAIMS, TORT CLAIMS (INCLUDING NEGLIGENCE), BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW AND STATUTORY CLAIMS. THIS SECTION HAS BEEN FULLY DISCUSSED BY EACH OF THE PARTIES HERETO AND THESE PROVISIONS WILL NOT BE SUBJECT TO ANY EXCEPTIONS. EACH PARTY HERETO HEREBY FURTHER WARRANTS AND REPRESENTS THAT SUCH PARTY HAS REVIEWED THIS WAIVER WITH ITS LEGAL COUNSEL, AND THAT SUCH PARTY KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL.

6.12 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

[*Signature Pages Follow*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

COMPANY:

CAMP4 THERAPEUTICS CORPORATION

By: /s/Josh Mandel-Brehm
Name: Josh Mandel-Brehm
Title: President and CEO

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

EVEREST AGGREGATOR, LP

By: Enavate Sciences GP, LLC, its general partner

By: /s/ James Boylan
Name: James Boylan
Title: Authorized Signatory

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

KAISER PERMANENTE GROUP TRUST

By: /s/ Thomas Lurquin
Name: Thomas Lurquin
Title: Vice President, Pensions and Investments

KAISER FOUNDATION HOSPITALS

By: /s/ Thomas Lurquin
Name: Thomas Lurquin
Title: Vice President, Pensions and Investments

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

SMRS-TOPE LLC

By: HVST-TOPE LLC
Its Managing Member

By: HarbourVest Partners L.P.
Its Manager

By: HarbourVest Partners, LLC
Its General Partner

By: /s/ Matthew H. Cheng
Name: Matthew H. Cheng
Title: Principal

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

5AM VENTURES VI, L.P.

By: 5AM Partners VI, LLC, its General Partner

By: /s/ Andrew J. Schwab
Name: Andrew J. Schwab
Title: Managing Member

5AM OPPORTUNITIES II, L.P.

By: 5AM Opportunities II (GP), LLC, its General Partner

By: /s/ Andrew J. Schwab
Name: Andrew J. Schwab
Title: Managing Member

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

AH BIO FUND I, L.P.
for itself and as nominee for
AH BIO FUND I-B, L.P

By: AH Equity Partners Bio I, L.L.C.
Its general partner

By: /s/ Scott Kupor
Name: Scott Kupor
Title: COO

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

POLARIS PARTNERS VII, L.P.

By: POLARIS MANAGEMENT CO. VII, L.L.C.
ITS GENERAL PARTNER

By: /s/ Lauren Crockett
Name: Lauren Crockett
Title: Attorney-in-Fact

POLARIS ENTREPRENEURS' FUND VII L.P.

By: POLARIS MANAGEMENT CO VII, L.L.C.
ITS GENERAL PARTNER

By: /s/ Lauren Crockett
Name: Lauren Crockett
Title: Attorney-in-Fact

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

NORTHPOND VENTURES, LP

By: /s/ Patrick Smerkers
Name: Patrick Smerkers
Title: SVP, Finance and Operations

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

KPC VENTURE CAPITAL LLC

By: /s/ Jonathan A. Kraft
Name: Jonathan A. Kraft
Title: Assistant Secretary of its Manager

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

GORDON FAMILY FOUNDATION

By: /s/ Michael S. Gordon
Name: Michael S. Gordon
Title: Trustee

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

JEREMY M. SCLAR 2012 IRREVOCABLE FAMILY TRUST

By: /s/ Richard A. Marks
Name: Richard A. Marks
Title: Trustee

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

GAINGELS 10X CAPITAL DIVERSITY FUND I, LP

By: Gaingels 10X Capital Diversity Fund I, GP, General Partner

By: /s/ David Beatty
Name: David Beatty
Title: Authorized Signatory

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

CA FUND I, A SERIES OF FLUCAS VENTURES, LP

By: Fund GP, LLC its General Partner
By: Belltower Fund Group, Ltd. Manager of the General Partner

By: /s/ Brett Sagan
Name: Brett Sagan
Title: Authorized Person

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

GAINGELS CAMP4 LLC

By: /s/ David Beatty
Name: David Beatty
Title: Manager, Gaingels Management LLC, Manager

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

INVESTOR:

By: /s/ Josh Mandel-Brehm
Name: Josh Mandel-Brehm

[*Signature Page to Third Amended and Restated Investors' Rights Agreement*]

SCHEDULE A

INVESTORS

[***]

[*Schedule of Investors*]

Exhibit 4.2

THIS WARRANT AND THE SHARES ISSUABLE HEREUNDER HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN SECTIONS 5.3 AND 5.4 BELOW, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

WARRANT TO PURCHASE STOCK

Company:	Marauder Therapeutics, Inc., a Delaware corporation
Number of Shares:	As set forth in Paragraph A below
Type/Series of Stock:	Series Seed Preferred Stock, $0.0001 par value per share
Warrant Price:	$1.00 per Share, subject to adjustment
Issue Date:	January 4, 2017
Expiration Date:	January 3, 2027 **See also Section 5.l(b)**.
Credit Facility:	This Warrant to Purchase Stock ("**Warrant**") is issued in connection with that certain Loan and Security Agreement of even date herewith between Silicon Valley Bank and the Company (as amended and/or modified and in effect from time to time, the "**Loan Agreement**").

THIS WARRANT CERTIFIES THAT, for good and valuable consideration, SILICON VALLEY BANK (together with any successor or permitted assignee or transferee of this Warrant or of any shares issued upon exercise hereof, "**Holder**") is entitled to purchase up to such number of fully paid and non-assessable shares of the above-stated Type/Series of Stock (the "**Class**") of the above-named company (the "**Company**") as determined pursuant to Paragraph A below, at the above-stated Warrant Price, all as set forth above and as adjusted pursuant to Section 2 of this Warrant, subject to the provisions and upon the terms and conditions set forth in this Warrant. Reference is made to Section 5.4 of this Warrant whereby Silicon Valley Bank shall transfer this Warrant to its parent company, SVB Financial Group.

A. Number of Shares. Upon the making of each Loan (as defined in the Loan Agreement), this Warrant automatically shall become exercisable for such number of shares of the Class (cumulatively, the "**Shares**") as shall equal (i)(a) 0.01, multiplied by (b) the amount of such Loan, divided by (ii) the Warrant Price in effect on and as of the date of such Advance, subject to adjustment thereafter from time to time in accordance with the provisions of this Warrant.

SECTION 1. EXERCISE.

1.1. Method of Exercise. Holder may at any time and from time to time on or before the Expiration Date exercise this Warrant, in whole or in part, by delivering to the Company the original of this Warrant together with a duly executed Notice of Exercise in substantially the form attached hereto as Appendix 1 and, unless Holder is exercising this Warrant pursuant to a cashless exercise set forth in Section 1.2, a check, wire transfer of same-day funds (to an account designated by the Company), or other form of payment acceptable to the Company for the aggregate Warrant Price for the Shares being purchased.

1.2. Cashless Exercise. On any exercise of this Warrant, in lieu of payment of the aggregate Warrant Price in the manner as specified in Section 1.1 above, but otherwise in accordance with the requirements of Section 1.1, Holder may elect to receive Shares equal to the value of this Warrant, or portion hereof as to which this Warrant is being exercised. Thereupon, the Company shall issue to the Holder such number of fully paid and non-assessable Shares as are computed using the following formula:

X = Y(A-B)/A

where:

X = the number of Shares to be issued to the Holder;

Y = the number of Shares with respect to which this Warrant is being exercised (inclusive of the Shares surrendered to the Company in payment of the aggregate Warrant Price);

A = the Fair Market Value (as determined pursuant to Section 1.3 below) of one Share; and

B = the Warrant Price.

1.3. Fair Market Value. If the Company's common stock is then traded or quoted on a nationally recognized securities exchange, inter-dealer quotation system or over-the-counter market (a "**Trading Market**") and the Class is common stock, the fair market value of a Share shall be the closing price or last sale price of a share of common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company. If the Company's common stock is then traded in a Trading Market and the Class is a series of the Company's convertible preferred stock, the fair market value of a Share shall be the closing price or last sale price of a share of the Company's common stock reported for the Business Day immediately before the date on which Holder delivers this Warrant together with its Notice of Exercise to the Company multiplied by the number of shares of the Company's common stock into which a Share is then convertible. If the Company's common stock is not traded in a Trading Market, the Board of Directors of the Company shall determine the fair market value of a Share in its reasonable good faith judgment.

1.4. Delivery of Certificate and New Warrant. Within a reasonable time after Holder exercises this Warrant in the manner set forth in Section 1.1 or 1.2 above, the Company shall deliver to Holder a certificate representing the Shares issued to Holder upon such exercise and, if this Warrant has not been fully exercised and has not expired, a new warrant of like tenor representing the Shares not so acquired.

1.5. Replacement of Warrant. On receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of this Warrant and, in the case of loss, theft or destruction, on delivery of an indemnity agreement reasonably satisfactory in form, substance and amount to the Company or, in the case of mutilation, on surrender of this Warrant to the Company for cancellation, the Company shall, within a reasonable time, execute and deliver to Holder, in lieu of this Warrant, a new warrant of like tenor and amount.

1.6. Treatment of Warrant Upon Acquisition of Company.

(a) Acquisition. For the purpose of this Warrant, "**Acquisition**" means any transaction or series of related transactions involving: (i) the sale, lease, exclusive license, or other disposition of all or substantially all of the assets of the Company; (ii) any merger or consolidation of the Company into or with another person or entity (other than a merger or consolidation effected exclusively to change the Company's domicile), or any other corporate reorganization, in which the stockholders of the Company in their capacity as such immediately prior to such merger, consolidation or reorganization, own less than a majority of the Company's (or the surviving or successor entity's) outstanding voting power immediately after such merger, consolidation or reorganization (or, if such Company stockholders beneficially own a majority of the outstanding voting power of the surviving or successor entity as of immediately after such merger, consolidation or reorganization, such surviving or successor entity is not the Company); or (iii) any sale or other transfer by the stockholders of the Company of shares representing at least a majority of the Company's then-total outstanding combined voting power. For the avoidance of doubt, "Acquisition" shall not include any sale and issuance by the Company of shares of its capital stock or of securities or instruments exercisable for or convertible into, or otherwise representing the right to acquire, shares of its capital stock to one or more investors for cash in a transaction or series of related transactions the primary purpose of which is a bona fide equity financing of the Company.

(b) Treatment of Warrant at Acquisition. In the event of an Acquisition in which the consideration to be received by the Company's stockholders consists solely of cash, solely of Marketable Securities or a combination of cash and Marketable Securities (a "**Cash/Public Acquisition**"), and the fair market value of one Share as determined in accordance with Section 1.3 above would be greater than the Warrant Price in effect on such date immediately prior to such Cash/Public Acquisition, and Holder has not exercised this Warrant pursuant to Section 1.1 above as to all Shares, then this Warrant shall automatically be deemed to be Cashless Exercised pursuant to Section 1.2 above as to all Shares effective immediately prior to and contingent upon the consummation of a Cash/Public Acquisition. In connection with such Cashless Exercise, Holder shall be deemed to have restated each of the representations and warranties in Section 4 of the Warrant as of the date thereof and the Company shall promptly notify the Holder of the number of Shares (or such other securities) issued upon exercise. In the event of a Cash/Public Acquisition where the fair market value of one Share as determined in accordance with Section 1.3 above would be less than the Warrant Price in effect immediately prior to such Cash/Public Acquisition, then this Warrant will expire immediately prior to the consummation of such Cash/Public Acquisition.

(c) Upon the closing of any Acquisition other than a Cash/Public Acquisition, either (i) the acquiring, surviving or successor entity shall assume this Warrant and the obligations of the Company hereunder, and this Warrant shall, from and after such closing, be exercisable for the same class, number and kind of securities, cash and other property as would have been paid for or in respect of the Shares issuable (as of immediately prior to such closing) upon exercise in full hereof as if such Shares had been issued and outstanding on and as of such closing, at an aggregate Warrant Price equal to the aggregate Warrant Price in effect as of immediately prior to such closing; and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant, or (ii) if the successor or surviving entity shall not have assumed this Warrant, then the aggregate Warrant Price shall be reduced to the greater of (A) One Dollar ($1.00), or (B) the aggregate par value of all Shares issuable hereunder as of immediately prior to the closing of such Acquisition, and this Warrant shall be deemed to have been exercised in full pursuant to Section 1.2 above as of immediately prior to the closing of such Acquisition.

(d) As used in this Warrant, "Marketable Securities" means securities meeting all of the following requirements: (i) the issuer thereof is then subject to the reporting requirements of Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and is then current in its filing of all required reports and other information under the Act and the Exchange Act; (ii) the class and series of shares or other security of the issuer that would be received by Holder in connection with the Acquisition were Holder to exercise this Warrant on or prior to the closing thereof is then traded in a Trading Market, and (iii) following the closing of such Acquisition, Holder would not be restricted from publicly re-selling all of the issuer's shares and/or other securities that would be received by Holder in such Acquisition were Holder to exercise this Warrant in full on or prior to the closing of such Acquisition, except to the extent that any such restriction (x) arises solely under federal or state securities laws, rules or regulations, and (y) does not extend beyond six (6) months from the closing of such Acquisition.

1.7. Certain Agreements. Following any exercise of this Warrant and solely with respect to the Shares issued thereupon (and the shares of Common Stock, if any, issued upon conversion of such Shares), Holder shall, if the Company so requests in writing, become a party to, by execution and delivery to the Company of a counterpart signature page, joinder agreement, instrument of accession or similar instrument, the Company's then-effective investors' rights agreement, stockholders' agreement and/or each other agreement entered into among the Company and the holders of the outstanding shares of the Class, in each case only if (i) all holders of outstanding shares of the Class are then parties thereto, and (ii) such agreement is then by its terms in force and effect. Provided that the conditions described in the foregoing clauses (i) and (ii) are met as to any such agreement at the time of any exercise of this Warrant, Holder shall, effective upon such exercise, automatically become bound by, and the Shares issued upon such exercise (and the shares of Common Stock, if any, issuable upon conversion of such Shares), automatically become subject to, such agreement.

SECTION 2. ADJUSTMENTS TO THE SHARES AND WARRANT PRICE.

2.1. Stock Dividends, Splits, Etc. If the Company declares or pays a dividend or distribution on the outstanding shares of the Class payable in common stock or other securities or property (other than cash), then upon exercise of this Warrant, for each Share acquired, Holder shall receive, without additional cost to Holder, the total number and kind of securities and property which Holder would have received had Holder owned the Shares of record as of the date the dividend or distribution occurred. If the Company subdivides the outstanding shares of the Class by reclassification or otherwise into a greater number of shares, the number of Shares purchasable hereunder shall be proportionately increased and the Warrant Price shall be proportionately decreased. If the outstanding shares of the Class are combined or consolidated, by reclassification or otherwise, into a lesser number of shares, the Warrant Price shall be proportionately increased and the number of Shares shall be proportionately decreased.

2.2. Reclassification, Exchange, Combinations or Substitution. Upon any event whereby all of the outstanding shares of the Class are reclassified, exchanged, combined, substituted, or replaced for, into, with or by Company securities of a different class and/or series, then from and after the consummation of such event, this Warrant will be exercisable for the number, class and series of Company securities that Holder would have received had the Shares been outstanding on and as of the consummation of such event, and subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant. The provisions of this Section 2.2 shall similarly apply to successive reclassifications, exchanges, combinations, substitutions, replacements or other similar events.

2.3. Conversion of Preferred Stock. If the Class is a class and series of the Company's convertible preferred stock, in the event that all outstanding shares of the Class are converted, automatically or by action of the holders thereof, into common stock pursuant to the provisions of the Company's Certificate of Incorporation, including, without limitation, in connection with the Company's initial, underwritten public offering and sale of its common stock pursuant to an effective registration statement under the Act (the "**IPO**"), then from and after the date on which all outstanding shares of the Class have been so converted, this Warrant shall be exercisable for such number of shares of common stock into which the Shares would have been converted had the Shares been outstanding on the date of such conversion, and the Warrant Price shall equal the Warrant Price in effect as of immediately prior to such conversion divided by the number of shares of common stock into which one Share would have been converted, all subject to further adjustment thereafter from time to time in accordance with the provisions of this Warrant.

2.4. Adjustments for Diluting Issuances. Without duplication of any adjustment otherwise provided for in this Section 2, the number of shares of common stock issuable upon conversion of the Shares shall be subject to anti-dilution adjustment from time to time in the manner set forth in the Company's Certificate of Incorporation as if the Shares were issued and outstanding on and as of the date of any such required adjustment.

2.5. No Fractional Share. No fractional Share shall be issuable upon exercise of this Warrant and the number of Shares to be issued shall be rounded down to the nearest whole Share. If a fractional Share interest arises upon any exercise of the Warrant, the Company shall eliminate such fractional Share interest by paying Holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with Section 1.3 above) of a full Share, less (ii) the then-effective Warrant Price.

2.6. Notice/Certificate as to Adjustments. Upon each adjustment of the Warrant Price, Class and/or number of Shares, the Company, at the Company's expense, shall notify Holder in writing within a reasonable time setting forth the adjustments to the Warrant Price, Class and/or number of Shares and facts upon which such adjustment is based. The Company shall, upon written request from Holder, furnish Holder with a certificate of its Chief Financial Officer, including computations of such adjustment and the Warrant Price, Class and number of Shares in effect upon the date of such adjustment.

SECTION 3. REPRESENTATIONS AND COVENANTS OF THE COMPANY.

3.1. Representations and Warranties. The Company represents and warrants to, and agrees with, the Holder as follows:

(a) The initial Warrant Price referenced on the first page of this Warrant is not greater than the price per share at which shares of the Class were last sold and issued prior to the Issue Date hereof in an arms-length transaction in which at least $500,000 of such shares were sold.

(b) All Shares which may be issued upon the exercise of this Warrant, and all securities, if any, issuable upon conversion of the Shares, shall, upon issuance, be duly authorized, validly issued, fully paid and non-assessable, and free of any liens and encumbrances except for restrictions on transfer provided for herein, under any of the agreements described in Section 1.7 above to the extent Holder is then a party thereto or subject thereto pursuant to the provisions of such Section, or under applicable federal and state securities laws. The Company covenants that it shall at all times cause to be reserved and kept available out of its authorized and unissued capital stock such number of shares of the Class, common stock and other securities as will be sufficient to permit the exercise in full of this Warrant and the conversion of the Shares into common stock or such other securities.

(c) The Company's capitalization table attached hereto as Schedule I is true and complete, in all material respects, as of the Issue Date.

3.2. Notice of Certain Events. If the Company proposes at any time to:

(a) declare any dividend or distribution upon the outstanding shares of the Class or common stock, whether in cash, property, stock, or other securities and whether or not a regular cash dividend;

(b) offer for subscription or sale pro rata to the holders of the outstanding shares of the Class any additional shares of any class or series of the Company's stock (other than pursuant to contractual pre-emptive rights);

(c) effect any reclassification, exchange, combination, substitution, reorganization or recapitalization of the outstanding shares of the Class;

(d) effect an Acquisition or to liquidate, dissolve or wind up; or

(e) effect an IPO;

then, in connection with each such event, the Company shall give Holder:

(1) in the case of the matters referred to in (a) and (b) above, at least seven (7) Business Days prior written notice of the earlier to occur of the effective date thereof or the date on which a record will be taken for such dividend, distribution, or subscription rights (and specifying the date on which the holders of outstanding shares of the Class will be entitled thereto) or for determining rights to vote, if any;

(2) in the case of the matters referred to in (c) and (d) above at least seven (7) Business Days prior written notice of the date when the same will take place (and specifying the date on which the holders of outstanding shares of the Class will be entitled to exchange their shares for the securities or other property deliverable upon the occurrence of such event and such reasonable information as Holder may reasonably require regarding the treatment of this Warrant in connection with such event giving rise to the notice); and

(3) with respect to the IPO, at least seven (7) Business Days prior written notice of the date on which the Company proposes to file its registration statement in connection therewith.

The Company will also provide information requested by Holder that is reasonably necessary to enable Holder to comply with Holder's accounting or reporting requirements.

SECTION 4. REPRESENTATIONS, WARRANTIES OF THE HOLDER.

The Holder represents and warrants to the Company as follows:

4.1. Purchase for Own Account. This Warrant and the securities to be acquired upon exercise of this Warrant by Holder are being acquired for investment for Holder's account, not as a nominee or agent, and not with a view to the public resale or distribution within the meaning of the Act. Holder also represents that it has not been formed for the specific purpose of acquiring this Warrant or the Shares.

4.2. Disclosure of Information. Holder is aware of the Company's business affairs and financial condition and has received or has had full access to all the information it considers necessary or appropriate to make an informed investment decision with respect to the acquisition of this Warrant and its underlying securities. Holder further has had an opportunity to ask questions and receive answers from the Company regarding the terms and conditions of the offering of this Warrant and its underlying securities and to obtain additional information (to the extent the Company possessed such information or could acquire it without unreasonable effort or expense) necessary to verify any information furnished to Holder or to which Holder has access.

4.3. Investment Experience. Holder understands that the purchase of this Warrant and its underlying securities involves substantial risk. Holder has experience as an investor in securities of companies in the development stage and acknowledges that Holder can bear the economic risk of such Holder's investment in this Warrant and its underlying securities and has such knowledge and experience in financial or business matters that Holder is capable of evaluating the merits and risks of its investment in this Warrant and its underlying securities and/or has a preexisting personal or business relationship with the Company and certain of its officers, directors or controlling persons of a nature and duration that enables Holder to be aware of the character, business acumen and financial circumstances of such persons.

4.4. Accredited Investor Status. Holder is an "accredited investor" within the meaning of Regulation D promulgated under the Act.

4.5. The Act. Holder understands that this Warrant and the Shares issuable upon exercise hereof have not been registered under the Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of the Holder's investment intent as expressed herein. Holder understands that this Warrant and the Shares issued upon any exercise hereof must be held indefinitely unless subsequently registered under the Act and qualified under applicable state securities laws, or unless exemption from such registration and qualification are otherwise available. Holder is aware of the provisions of Rule 144 promulgated under the Act.

4.6. Market Stand-off Agreement. The Holder agrees that the Shares shall be subject to the Market Standoff provisions in Section 2.11 of the Company's Investor Rights Agreement, as amended and in effect from time to time.

4.7. No Shareholder Rights. Without limiting any provision of this Warrant, Holder agrees that as a Holder of this Warrant it will not have any rights (including, but not limited to, voting rights) as a shareholder of the Company with respect to the Shares issuable hereunder unless and until the exercise of this Warrant and then only with respect to the Shares issued on such exercise.

SECTION 5. MISCELLANEOUS.

5.1. Term; Automatic Cashless Exercise Upon Expiration.

(a) Term. Subject to the provisions of Section 1.6 above, this Warrant is exercisable in whole or in part at any time and from time to time on or before 6:00 PM, Pacific time, on the Expiration Date and shall be void thereafter.

(b) Automatic Cashless Exercise upon Expiration. In the event that, upon the Expiration Date, the fair market value of one Share (or other security issuable upon the exercise hereof) as determined in accordance with Section 1.3 above is greater than the Warrant Price in effect on such date, then this Warrant shall automatically be deemed on and as of such date to be exercised pursuant to Section 1.2 above as to all Shares (or such other securities) for which it shall not previously have been exercised, and the Company shall, within a reasonable time, deliver a certificate representing the Shares (or such other securities) issued upon such exercise to Holder.

5.2. Legends. Each certificate evidencing Shares (and each certificate evidencing securities issued upon conversion of any Shares, if any) shall be imprinted with a legend in substantially the following form (together with such other legend(s) as may be required by the terms of the agreements described in Section 1.7 above to the extent Holder is then a party thereto or subject thereto pursuant to the provisions of such Section):

> THE SHARES EVIDENCED BY THIS CERTIFICATE HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "**ACT**"), OR THE SECURITIES LAWS OF ANY STATE AND, EXCEPT AS SET FORTH IN THAT CERTAIN WARRANT TO PURCHASE STOCK ISSUED BY THE ISSUER TO SILICON VALLEY BANK DATED JANUARY 4, 2017, MAY NOT BE OFFERED, SOLD, PLEDGED OR OTHERWISE TRANSFERRED UNLESS AND UNTIL REGISTERED UNDER SAID ACT AND LAWS OR, IN THE OPINION OF LEGAL COUNSEL IN FORM AND SUBSTANCE SATISFACTORY TO THE ISSUER, SUCH OFFER, SALE, PLEDGE OR OTHER TRANSFER IS EXEMPT FROM SUCH REGISTRATION.

5.3. Compliance with Securities Laws on Transfer. This Warrant and the Shares issued upon exercise of this Warrant (and the securities issuable, directly or indirectly, upon conversion of the Shares, if any) may not be transferred or assigned in whole or in part except in compliance with applicable federal and state securities laws by the transferor and the transferee (including, without limitation, the delivery of investment representation letters and legal opinions reasonably satisfactory to the Company, as reasonably requested by the Company). The Company shall not require Holder to provide an opinion of counsel if the transfer is to SVB Financial Group (Silicon Valley Bank's parent company) or any other affiliate of Holder, provided that any such transferee is an "accredited investor" as defined in Regulation D promulgated under the Act. Additionally, the Company shall also not require an opinion of counsel if there is no material question as to the availability of Rule 144 promulgated under the Act.

5.4. Transfer Procedure. After receipt by Silicon Valley Bank of the executed Warrant, Silicon Valley Bank will transfer all of this Warrant to its parent company, SVB Financial Group. By its acceptance of this Warrant, SVB Financial Group hereby makes to the Company each of the representations and warranties set forth in Section 4 hereof and agrees to be bound by all of the terms and conditions of this Warrant as if the original Holder hereof. Subject to the provisions of Section 5.3 and upon providing the Company with written notice, SVB Financial Group and any subsequent Holder may transfer all or part of this Warrant or the Shares issued upon exercise of this Warrant (or the securities issued upon conversion of the Shares, if any) to any transferee, provided, however, in connection with any such transfer, SVB Financial Group or any subsequent Holder will give the Company notice of the portion of the Warrant and/or Shares (and/or securities issued upon conversion of the Shares, if any) being transferred with the name, address and taxpayer identification number of the transferee and Holder will surrender this Warrant to the Company for reissuance to the transferee(s) (and Holder if applicable); and provided further, that any subsequent transferee other than SVB Financial Group shall agree in writing with the Company to be bound by all of the terms and conditions of this Warrant; and provided further, that the transfer of any Shares issued on exercise hereof (or of any securities issued on conversion of any such Shares) shall be subject to the agreements described in Section 1.7 above to the extent Holder is then a party thereto or subject thereto pursuant to the provisions of such Section. Notwithstanding any contrary provision herein, at all times prior to the IPO, Holder may not, without the Company's prior written consent, transfer this Warrant or any portion hereof, or any Shares issued upon any exercise hereof, or any shares or other securities issued upon any conversion of any Shares issued upon any exercise hereof, to any person or entity who directly competes with the Company, except in connection with an Acquisition of the Company by such a direct competitor.

5.5. Notices. All notices and other communications hereunder from the Company to the Holder, or vice versa, shall be deemed delivered and effective (i) when given personally, (ii) on the third (3rd) Business Day after being mailed by first-class registered or certified mail, postage prepaid, (iii) upon actual receipt if given by facsimile or electronic mail and such receipt is confirmed in writing by the recipient, or (iv) on the first Business Day following delivery to a reliable overnight courier service, courier fee prepaid, in any case at such address as may have been furnished to the Company or Holder, as the case may be, in writing by the Company or such Holder from time to time in accordance with the provisions of this Section 5.5. All notices to Holder shall be addressed as follows until the Company receives notice of a change of address in connection with a transfer or otherwise:

SVB Financial Group
Attn: Treasury Department
3003 Tasman Drive, HC 215
Santa Clara, CA 95054
Telephone: [***]
Facsimile: [***]
Email address: [***]

Notice to the Company shall be addressed as follows until Holder receives notice of a change in address:

Marauder Therapeutics, Inc.
Attn: Chief Financial Officer
One Kendall Square, B1400
Cambridge, MA 02139
Telephone: [***]
Facsimile: [***]
Email: [***]

With a copy (which shall not constitute notice) to:

Goodwin Procter LLP
100 Northern Ave.
Boston, MA 02210
Attn: Kingsley Taft
Telephone: [***]
Facsimile: [***]
Email: [***]

5.6. Waiver. This Warrant and any term hereof may be changed, waived, discharged or terminated (either generally or in a particular instance and either retroactively or prospectively) only by an instrument in writing signed by the party against which enforcement of such change, waiver, discharge or termination is sought.

5.7. Attorneys' Fees. In the event of any dispute between the parties concerning the terms and provisions of this Warrant, the party prevailing in such dispute shall be entitled to collect from the other party all costs incurred in such dispute, including reasonable attorneys' fees.

5.8. Counterparts; Facsimile/Electronic Signatures. This Warrant may be executed in counterparts, all of which together shall constitute one and the same agreement. Any signature page delivered electronically or by facsimile shall be binding to the same extent as an original signature page with regards to any agreement subject to the terms hereof or any amendment thereto.

5.9. Governing Law. This Warrant shall be governed by and construed in accordance with the laws of the State of California, without giving effect to its principles regarding conflicts of law.

5.10. Headings. The headings in this Warrant are for purposes of reference only and shall not limit or otherwise affect the meaning of any provision of this Warrant.

5.11. Business Days. "**Business Day**" is any day that is not a Saturday, Sunday or a day on which Silicon Valley Bank is closed.

[Remainder of page left blank intentionally]
[Signature page follows]

IN WITNESS WHEREOF, the parties have caused this Warrant to Purchase Stock to be executed by their duly authorized representatives effective as of the Issue Date written above.

"COMPANY"

MARAUDER THERAPEUTICS, INC.

By: /s/ Paulina Hill

Name: Paulina Hill
(Print)

Title: CEO

"HOLDER"

SILICON VALLEY BANK

By: /s/ Kate Walsh

Name: Kate Walsh
(Print)

Title: Director

APPENDIX 1

NOTICE OF EXERCISE

[***]

SCHEDULE 1

Company Capitalization Table

See attached

Marauder Therapeutics, Inc.
Capitalization Table

[***]

Exhibit 10.1

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF PUBLICLY DISCLOSED

WHITEHEAD INSTITUTE FOR BIOMEDICAL RESEARCH

PATENT LICENSE AGREEMENT

This Agreement, effective as of October 23, 2019 (the "EFFECTIVE DATE"), is between the **Whitehead Institute for Biomedical Research** ("WHITEHEAD"), a Delaware corporation, having a principal office at 455 Main Street, Cambridge, MA 02142 and **CAMP4 Therapeutics Corporation** ("COMPANY"), a Delaware corporation, having a principal place of business at One Kendall Square, Building 1400 West, Suite B14301, 3rd Floor, Cambridge, MA 02139.

RECITALS

WHEREAS, WHITEHEAD is the owner of certain PATENT RIGHTS (as later defined herein) relating to [***];

WHEREAS, WHITEHEAD has the right to grant licenses under said PATENT RIGHTS subject to a royalty-free, nonexclusive, non-transferable license to practice the PATENT RIGHTS granted to the United States Government for government purposes;

WHEREAS, WHITEHEAD retains the right to grant [***] under PATENT RIGHTS to the extent necessary to allow [***] to practice inventions conceived and reduced to practice under its [***] Agreement dated [***];

WHEREAS, WHITEHEAD has granted a [***] license to [***];

WHEREAS, WHITEHEAD desires to have the PATENT RIGHTS developed and commercialized to benefit the public by granting a license;

COMPANY has represented to WHITEHEAD that it has the financial capacity and the strategic commitment to facilitate the transfer of the technology for the public interest using commercially reasonable efforts; and

COMPANY desires to obtain a license to WHITEHEAD'S rights under the PATENT RIGHTS, and WHITEHEAD is willing to grant a license upon the terms and conditions of this Agreement.

NOW, THEREFORE, WHITEHEAD, and COMPANY hereby agree as follows:

1. DEFINITIONS

1.1 "AFFILIATE" will mean, with respect to a party hereto, any legal entity (such as a corporation, partnership, or limited liability company) that directly or indirectly controls, or is controlled by, or is under common control with, such party. For the purposes of this definition, the term "control" means (i) beneficial ownership of at least fifty percent (50%) of the voting securities of a corporation or other business organization with voting securities or (ii) a fifty percent (50%) or greater interest in the net assets or profits of a partnership or other business organization without voting securities, or (iii) the power to direct the management and policies of such entities.

1.2 "ANCHOR REGIONS/SEQUENCES" will mean regions and sequences that [***].

1.3 "BOUNDARY REGIONS/SEQUENCES" will mean regions and sequences that [***].

1.4 "CO-EXCLUSIVE CASES" will mean PATENT RIGHTS of the cases listed in Appendix B under the heading "Co-Exclusive Cases".

1.5 "COMBINATION PRODUCT" will mean any PRODUCT sold or used in combination with one or more other therapeutically active ingredients which are not PRODUCTS. For example, a COMBINATION PRODUCT is a pharmaceutical product that includes two therapeutically active pharmaceutical ingredients, only one of which that is or is in a PRODUCT.

1.6 "CORPORATE PARTNER" will mean a non-AFFILIATE third party that has entered into a CORPORATE PARTNERSHIP with COMPANY.

1.7 "CORPORATE PARTNERSHIP" will mean a written contractual agreement between COMPANY and a CORPORATE PARTNER under which the CORPORATE PARTNER is granted certain rights (e.g., a license or option) to the outcome of COMPANY'S performance of a LICENSED PROCESS but not a sublicense under the PATENT RIGHTS.

1.8 "EXCLUDED ENFORCEMENT FIELD" means [***].

1.9 "EXCLUSIVE CASES" will mean PATENT RIGHTS of the cases listed in Appendix B under the heading "Exclusive Cases".

1.10 "FIELD" will mean all human and animal therapeutic and diagnostic fields. For the avoidance of doubt, FIELD excludes sale and/or distribution of reagents for research use.

1.11 "IDENTIFIED PRODUCT" will mean any product, other than a LICENSED PRODUCT, (i) first identified, selected, or determined by COMPANY, its AFFILIATE or SUBLICENSEE to have [***] of LICENSED PRODUCTS or LICENSED PROCESSES during the TERM and prior to the [***] of the EFFECTIVE DATE and (ii) for which COMPANY or its AFFILIATE receive consideration based on the sales of such product to final customers who are the end users of such product, including consideration from such sales of such product to such final customers made by COMPANY or its AFFILIATE.

1.12 "IND" will mean, with respect to a particular LICENSED PRODUCT, an Investigational New Drug application submitted to the FDA, or a comparable application filed with any other relevant regulatory agency in any country or jurisdiction in the TERRITORY.

1.13 "INSULATED NEIGHBORHOODS" or "IN" will mean [***].

1.14 "LICENSED PROCESS" will mean any process (including the provision of any service) of which the use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS.

1.15 "LICENSED PRODUCT" will mean any product of which the manufacture, use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS.

1.16 "MAJOR MARKET" will mean [***].

1.17 "NDA" will mean, with respect to a particular LICENSED PRODUCT, a New Drug Application submitted to the FDA for such LICENSED PRODUCT in the United States of America, or a comparable application filed with any other relevant regulatory agency seeking approval.

1.18 "NET SALES" will mean the gross amount invoiced by (a) with respect to PRODUCTS, COMPANY, its AFFILIATES, SUBLICENSEES for PRODUCTS to a final customer who is an end user of the PRODUCT and (b) with respect to IDENTIFIED PRODUCTS, CORPORATE PARTNERS for such IDENTIFIED PRODUCTS to a final customer who is an end user of the IDENTIFIED PRODUCT, less the following:

(i) [***];

(ii) [***];

(iii) [***];

(iv) [***];

(v) [***]; and

(vi) [***].

No deductions will be made for commissions paid to individuals whether they are with independent sales agencies or regularly employed by COMPANY and on its payroll or for costs of collections. NET SALES will occur on the date of invoicing for a PRODUCT.

[***]

In the event that a PRODUCT is sold as a COMBINATION PRODUCT, NET SALES, for the purposes of determining royalty payments on the COMBINATION PRODUCT in a country, will mean the [***] that is determined as follows:

(1) [***]; or

(2) [***].

1.19 "PATENT CHALLENGE" will mean a proceeding to challenge the validity or enforceability of any of the PATENT RIGHTS, and includes acts that institute, or cause counsel to institute, any interference, opposition, re-examination, or similar proceeding with respect to any of the PATENT RIGHTS with the U.S. Patent and Trademark Office or any foreign patent office.

1.20 "PATENT RIGHTS" will mean:

(i) the United States and international patents listed on Appendix A;

(ii) the United States and international patent applications and/or provisional applications listed on Appendix A and the resulting patents that issue directly therefrom;

(iii) claims of any patent applications claiming priority to any of the provisional applications listed on Appendix A that are directed to subject matter specifically described in the patents or patent applications listed on Appendix A and any divisional, continuations, claims of continuation-in-part applications, and continued prosecution applications (and their relevant international equivalents) of the patent applications listed on Appendix A or of such patent applications that claim priority to any of the provisional applications listed on Appendix A, to the extent that claims are directed to and wholly supported by subject matter specifically described in the patent applications listed on Appendix A, and those claims in the resulting patents that issue directly therefrom;

(iv) claims of any patents resulting from reissues, reexaminations, or extensions (and their relevant international equivalents) of the patents described in any of (i), (ii), and (iii) above that are directed to subject matter specifically described in the patents and patent applications listed on Appendix A; and

(v) U.S. provisional patent applications which are directed to subject matter specifically described in the United States patents and/or patent applications listed on Appendix A, claims of any patent applications claiming priority to any of such provisional applications that are directed to and wholly supported by subject matter specifically described in the patents or patent applications listed on Appendix A, and any divisional, continuations, claims of continuation-in-part applications, or continued prosecution applications (and their relevant international equivalents) of any of the foregoing patent applications, to the extent the claims are directed to subject matter specifically described in the patent applications listed on Appendix A, those claims in the resulting patents, and the claims of any patents issuing from any of the foregoing, and any patents resulting from reissues, reexamination, or extensions (and their relevant international equivalents) of any of such patents that are directed to subject matter specifically described in the patents or patent applications listed on Appendix A.

COMPANY may remove, at its sole discretion, any patent or patent application or claim thereof from Appendix A in accordance with Section 6.1(c). PATENT RIGHTS include the CO-EXCLUSIVE CASES and EXCLUSIVE CASES.

1.21 "PHASE I TRIAL" will mean a clinical study of the first introduction of a LICENSED PRODUCT into a human subject. In the United States, "PHASE I TRIAL" will mean a human clinical study that satisfies the requirements of 21 C.F.R. § 312.21(a).

1.22 "PHASE II TRIAL" will mean a clinical study of a LICENSED PRODUCT conducted to obtain preliminary data on its effectiveness for a particular indication(s) in human subjects with the disease or condition and its possible short-term side effects and risks. In the United States, "PHASE II TRIAL" will mean a human clinical study that satisfies the requirements of 21 C.F.R. § 312.21(b).

1.23 "PHASE III TRIAL" will mean a clinical study of a LICENSED PRODUCT in human subjects for the purpose of gathering the definitive information about efficacy, dosage, and safety in the proposed therapeutic indication to demonstrate that the LICENSED PRODUCT is safe and effective in order for the FDA or other appropriate regulatory agency to approve an NDA to market the LICENSED PRODUCT for the proposed indication. In the United States, "PHASE III TRIAL" will mean a human clinical study that satisfies the requirements of 21 C.F.R. § 312.21(c).

1.24 "PRODUCT" will mean a LICENSED PRODUCT or an IDENTIFIED PRODUCT.

1.25 "REPORTING PERIOD" will begin on the first day of each calendar quarter and end on the last day of such calendar quarter.

1.26 "ROYALTY TERM" will mean, on a LICENSED PRODUCT-by-LICENSED PRODUCT and country-by-country basis, the time period commencing with the first sale of such LICENSED PRODUCT included within the scope of NET SALES in such country and ending on the expiration or termination of [***]. For the purposes of this Section 1.26, "Covering" shall mean, with respect to a LICENSED PRODUCT in a country, that (i) a VALID CLAIM would be infringed by the manufacture, use, sale, offer of sale, or importation of such LICENSED PRODUCT in such country or that (ii) a VALID CLAIM would be infringed by the use, sale, offer of sale or importation of the LICENSED PROCESS (a) used in the manufacture of such LICENSED PRODUCT in such country or (b) practiced by the use of such LICENSED PRODUCT in such country.

1.27 "SUBLICENSEE" will mean any entity (other than COMPANY AFFILIATES) to which COMPANY has granted a SUBLICENSE AGREEMENT.

1.28 "SUBLICENSE AGREEMENT" will mean a written contractual agreement in which COMPANY grants a sublicense of the rights granted COMPANY under Section 2.1 to a party who is not an AFFILIATE of COMPANY.

1.29 "TERM" will mean the term of this Agreement, which will commence on the EFFECTIVE DATE and will remain in effect until the expiration or abandonment of the PATENT RIGHTS, unless earlier terminated in accordance with the provisions of this Agreement.

1.30 "TERRITORY" will mean worldwide.

1.31 "VALID CLAIM" will mean (i) any claim of an issued and unexpired PATENT RIGHT that (a) has not been held permanently revoked, unenforceable or invalid by a decision of a court or governmental agency of competent jurisdiction, which decision is unappealable or unappealed within the time allowed for appeal, and (b) has not been abandoned, disclaimed, denied or admitted to be invalid or unenforceable through reissue or disclaimer or otherwise, or (ii) a claim of a pending PATENT RIGHT application that has not been pending for more than the shorter of (a) [***] years from the date of first action on the merits and (b) [***] years from its earliest priority date, in each case of clause (ii)(a) and (ii)(b), which claim has not been abandoned or finally disallowed without the possibility of appeal or re-filing of the application. The invalidity of a particular claim in one or more countries will not in itself invalidate such claim in the remaining countries of the TERRITORY.

2. GRANT OF RIGHTS

2.1 License Grants. Subject to the terms of this Agreement (including Sections 2.2 and 2.3 which describe the exclusivity of this grant), WHITEHEAD hereby grants to COMPANY and its AFFILIATES for the TERM a royalty-bearing license under the PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease, and import LICENSED PRODUCTS in the FIELD in the TERRITORY and to perform and have performed LICENSED PROCESSES in the FIELD in the TERRITORY.

2.2 Co-Exclusivity. Subject to the terms of this Agreement, in addition to the license granted to COMPANY and its AFFILIATES under Section 2.1, WHITEHEAD agrees that it may grant a license to [***] (the "CO-EXCLUSIVE THIRD PARTY LICENSEE"), under the PATENT RIGHTS of the CO-EXCLUSIVE CASES in [***] (such license, the "CO-EXCLUSIVE THIRD PARTY LICENSE"). For the avoidance of doubt, except as otherwise expressly provided herein, WHITEHEAD shall not grant any other person or entity any rights to the CO-EXCLUSIVE CASES during the TERM other than the CO-EXCLUSIVE THIRD PARTY LICENSEE under the CO-EXCLUSIVE THIRD PARTY LICENSE. In the event that the CO-EXCLUSIVE THIRD PARTY LICENSE is amended, terminated or expires, in whole or in part, so that exclusive rights under any PATENT RIGHT of the CO-EXCLUSIVE CASES in all or part of the FIELD in all or part of the TERRITORY are available for grant, such CO-EXCLUSIVE CASES shall be deemed EXCLUSIVE CASES under this Agreement in the relevant part of the FIELD and TERRITORY and WHITEHEAD shall promptly so notify COMPANY.

2.3 Exclusivity. Subject to the terms of this Agreement, WHITEHEAD agrees that it shall not grant any other license under the PATENT RIGHTS of the EXCLUSIVE CASES in the FIELD in the TERRITORY to develop, make, have made, use, sell, offer for sale or import PRODUCTS, or to perform or have performed LICENSED PROCESSES.

2.4 Sublicenses. COMPANY will have the right to grant sublicenses of the license granted under Section 2.1 of this Agreement and through multiple tiers, provided however that the patent cases of the sublicense that are CO-EXCLUSIVE CASES are not, to COMPANY'S knowledge, the subject of alleged third-party infringement of the PATENT RIGHTS by the prospective SUBLICENSEE. COMPANY shall incorporate terms and conditions into its SUBLICENSE AGREEMENTS sufficient to enable COMPANY to comply with this Agreement.

Upon termination of this Agreement for any reason, [***].

(a) Form and Content of SUBLICENSE AGREEMENT. COMPANY shall issue any sublicense(s) granted by it under this Agreement in writing, and COMPANY shall include the equivalent of at least the following provisions with COMPANY in all SUBLICENSE AGREEMENTS. SUBLICENSEES shall report annually to COMPANY on its operations under the SUBLICENSEE AGREEMENT.

(i) SUBLICENSEES shall make payments due to COMPANY in relation to NET SALES of PRODUCTS in a timely manner, so that COMPANY may comply with its obligations to make payments to WHITEHEAD as set forth in Section 4.

(ii) The terms and conditions of Sections 2.5 (U.S. Manufacturing), 2.6 (Retained Rights), 5.3 (Record keeping), 11.2 (Export Control), 11.3 (Non-Use of Name), and 11.4 (Marking of PRODUCTS) are binding on the SUBLICENSEE through the applicable SUBLICENSE AGREEMENT.

(iii) A section substantially the same as Section 8 (Indemnification and Insurance) will be included which also will state that the Indemnitees (as defined in Section 8) are intended third-party beneficiaries of such SUBLICENSE AGREEMENT solely for the purpose of enforcing such indemnification and insurance provisions.

(b) Copies of SUBLICENSE AGREEMENTS. COMPANY shall forward to WHITEHEAD copies of any and all fully executed SUBLICENSE AGREEMENTS within thirty [***] after their execution, which copies may be reasonably redacted except for matters relevant to COMPANY'S obligations and/or WHITEHEAD'S rights under this Agreement, provided that sufficient information remains unredacted to allow WHITEHEAD to assess whether COMPANY is in compliance with its obligations under this Agreement and to verify amounts payable hereunder in connection with such sublicense agreement. WHITEHEAD shall keep copies of SUBLICENSE AGREEMENTS in its confidential files, shall treat as confidential information in accord with Section 14, and shall use them solely for the purpose of monitoring COMPANY'S and SUBLICENSEES' compliance with their obligations hereunder and enforcing WHITEHEAD'S rights under this Agreement.

2.5 U.S. Manufacturing. COMPANY agrees that any LICENSED PRODUCTS used or sold in the United States will be manufactured substantially in the United States as required by 35 U.S.C. 204 and 37 C.F.R. 401 et. seq., as amended.

2.6 Retained Rights.

(a) WHITEHEAD. WHITEHEAD retains the right to practice the PATENT RIGHTS for research, teaching, and other educational purposes including use in third- party sponsored research; provided, however, that in no event shall any such retained rights permit the practice or use of any PATENT RIGHTS in the FIELD in the TERRITORY for commercial activities (meaning commercial development, production, manufacture, distribution or sale of products or provision of services for a fee).

(b) Academic and Not-For-Profit Research Institutes. WHITEHEAD retains the right to grant non-exclusive licenses to other nonprofit or academic institutions to practice the PATENT RIGHTS for research, teaching, and other educational purposes; provided, however, that in no event shall any license permit the practice or use of any PATENT RIGHTS in the FIELD in the TERRITORY for commercial activities (meaning commercial development, production, manufacture, distribution or sale of products or provision of services for a fee).

(c) [***]. WHITEHEAD represents that it is a party to a Sponsored Research Agreement by and between WHITEHEAD and [***] dated December 15, 2017 and as amended on April 8, 2019 ("SRA"), that the SRA remains in full force and effect as of the EFFECTIVE DATE in the form disclosed to COMPANY prior to the EFFECTIVE DATE and that no redacted terms in the SRA as disclosed to COMPANY would be relevant to the terms of this Section 2.6(c) or otherwise conflict with the rights granted to COMPANY hereunder. WHITEHEAD agrees that it will not enter into any amendment or the SRA or any other agreement or arrangement with [***] that would be relevant to terms of this Section 2.6(c) or otherwise conflict with the rights granted to COMPANY, its AFFILIATES and its SUBLICENSEES under this Agreement without COMPANY'S prior written approval.

(i) WHITEHEAD represents that the SRA includes an obligation for WHITEHEAD to grant certain rights in certain inventions arising under the SRA to [***]. Such inventions are "WIBR Inventions", "Subcontractor Inventions" and "WIBR/Subcontractor Inventions" (as each such term is defined in the SRA) arising during the initial term of the SRA (and any extension up to [***] agreed in writing) for which (i) patent applications are filed and (ii) that would be dominated by one or more VALID CLAIMS (as defined in this Agreement) ("SRA Invention"). Whitehead represents that such certain rights to PATENT RIGHTS are in the form of a covenant not to sue (as described in Section 2.6(c)(ii) below) and not in the form of an express license.

(ii) COMPANY acknowledges that WHITEHEAD has or will covenant not to bring, directly or indirectly, any demand, claim, lawsuit, or action against [***] relating in any way to the practice or use of any PATENT RIGHTS listed on Appendix D (the "RELEVANT PATENTS") to the extent necessary to allow [***] to practice any of the SRA Inventions that become licensed to [***] by WHITEHEAD (and sublicensees of same). Accordingly, COMPANY has agreed to the terms of Section 7.2(c).

(iii) If [***] does not become licensed under an applicable SRA Invention during the time period set forth in clause (i) of this Section 2.6(c) and any "Invention Option Period", "Option Extension Period" or "Negotiation Period" (as each such terms are defined in the SRA) or such license terminates for any reason, WHITEHEAD will promptly notify COMPANY and COMPANY will have no restrictions from pursuing infringement of the RELEVANT PATENTS as otherwise provided in this Agreement.

(d) [***]. WHITEHEAD has granted to [***], a worldwide, perpetual, non-transferable, non-exclusive license for internal research purposes only to [***] of the PATENT RIGHTS. [***]

(e) Federal Government. COMPANY acknowledges that the U.S. federal government retains a royalty-free, non-exclusive, non-transferable license to practice any government-funded invention claimed in any PATENT RIGHTS as set forth in 35 U.S.C. §§ 201-211, and the regulations promulgated thereunder, as amended, or any successor statutes or regulations.

2.7 No Additional Rights. Nothing in this Agreement will be construed to confer any rights upon COMPANY by implication, estoppel, or otherwise as to any technology or patent rights of WHITEHEAD or any other entity other than the PATENT RIGHTS, regardless of whether such technology or patent rights shall be dominant or subordinate to any PATENT RIGHTS.

3. COMPANY DILIGENCE OBLIGATIONS

3.1 Diligence Requirements.

(a) COMPANY shall use [***], or shall cause one or more of its AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS to use [***], to develop one or more PRODUCTS or LICENSED PROCESSES and to introduce PRODUCTS or LICENSED PROCESSES into the commercial market in a MAJOR MARKET. With respect to any PRODUCT or LICENSED PROCESS that has been introduced to the commercial market in a MAJOR MARKET, COMPANY or its AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS shall use [***] to keep such PRODUCT or LICENSED PROCESS reasonably available to the public. COMPANY shall, within [***] after the end of each calendar year, furnish WHITEHEAD with a written report (consistent with Section 5.1(a)) on the progress of its efforts during the immediately preceding calendar year to develop or commercialize PRODUCTS or LICENSED PROCESSES. The report will also contain a high-level discussion of intended development or commercialization efforts and non-binding sales projections, if applicable, for the year in which the report is submitted.

(b) If, at any given time during the TERM, COMPANY or any one or more AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS, alone or together, has performed any one of the following, then COMPANY will be deemed to have complied with COMPANY'S obligations under Section 3.1(a):

(i) is selling one or more PRODUCTS that generate combined NET SALES of at least [***];

(ii) total payments made to WHITEHEAD under this Agreement are equal to or exceed [***];

(iii) [***], or

(iv) [***].

In the event that, for each first full calendar year during the TERM following the [***] of the EFFECTIVE DATE, COMPANY or its AFFILIATES, CORPORATE PARTNERS, or SUBLICENSEES, alone or together, has not performed at least one of Sections 3.1 (b)(i) through (iv) during such full calendar year with respect to at least one PRODUCT, then WHITEHEAD may treat such failure [***], provided that COMPANY may elect to pay to WHITEHEAD a diligence extension fee of [***] to extend the diligence period for up to [***].

(c) Beginning five (5) years from the EFFECTIVE DATE, if WHITEHEAD or COMPANY receives a bona fide request from a third party for a sublicense to the EXCLUSIVE CASES to make, have made, use, sell, offer to sell, and import a LICENSED PRODUCT or LICENSED PROCESS, which proposed product or process ("Proposed Product") (i) is not directly competitive with any LICENSED PRODUCT or LICENSED PROCESS then offered for sale or in bona fide research or development as evidenced by the performance of any of the diligence obligations set forth in Sections 3.1(a) or (b) by or on behalf of COMPANY or any of its AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS and (ii) the development or commercialization of which would not have an adverse impact on COMPANY'S strategic plans for a LICENSED PRODUCT or LICENSED PROCESS as such plans are described by COMPANY to WHITEHEAD under obligations of confidentiality, then COMPANY shall, subject to COMPANY'S right as set forth in the following paragraph to submit a development plan for the Proposed Product, consider in good faith entering into negotiations toward granting at least a non-exclusive sublicense, limited to the proposed field only, to such third party for such third party's Proposed Product.

As an alternative to negotiating a sublicense to a third party, COMPANY (or one of its AFFILIATES or actual SUBLICENSEES or CORPORATE PARTNERS) may submit to WHITEHEAD, within [***] after such third party's request for a sublicense, a plan for prompt and diligent development of the Proposed Product, including a commitment to commercially reasonable development milestones. If COMPANY submits such a plan, no third-party sublicense shall be required for each such Proposed Product pursuant to this Section 3.1(c), and Section 3.1(d) below will not apply. If WHITEHEAD does not agree that the plan submitted by COMPANY meets the criteria set forth in this paragraph, the parties shall meet within [***] of COMPANY'S submission to resolve in good-faith any differences in the plan.

For purposes of this Section 3.1(c), "directly competitive" with a LICENSED PRODUCT or LICENSED PROCESS includes, for example and without limitation, that (i) the Proposed Product is or could be for the same or similar indication, is directed against the same target or otherwise is in the same therapeutic space as any such LICENSED PRODUCT or LICENSED PROCESS; (ii) the Proposed Product is a derivative, homolog, analog, or other chemically-related species/compound to such LICENSED PRODUCT or LICENSED PROCESS; or (iii) the development or commercialization of the Proposed Product could harm the development or commercialization of any such LICENSED PRODUCT or LICENSED PROCESS (where, for example, an adverse regulatory event for the Proposed Product could impact any such LICENSED PRODUCT or LICENSED PROCESS).

(d) If COMPANY has not proposed reasonable terms for a sublicense to the third party under Section 3.1(c) above within [***] after receiving the request in writing, and if COMPANY has not submitted a development plan as provided for in Section 3.1(c) above, then WHITEHEAD shall have the right to require COMPANY to offer a non-exclusive sublicense to the third party [***], limited to the proposed field only, for such third party's Proposed Product. The [***] period during which COMPANY may propose reasonable terms, prior to WHITEHEAD requiring such sublicense grant, will be extended an additional [***] if, at the end of the initial [***] period, both COMPANY and the prospective third party sublicensee assert to WHITEHEAD that they are engaged in good faith negotiations regarding the sublicense.

4. ROYALTIES AND PAYMENT TERMS

4.1 Consideration for Grant of Rights.

(a) License Issue Fee, Patent Cost Reimbursement, and Milestone Payments. COMPANY shall pay to WHITEHEAD a license issue fee of One-Hundred-Thousand Dollars ($100,000), payable as Fifty-Thousand Dollars ($50,000) within thirty (30) days of the EFFECTIVE DATE and Fifty-Thousand Dollars ($50,000) on the earlier of (a) March 31, 2020 and (b) the date on which COMPANY has raised, in a final closing of a Series B financing round of COMPANY, at least $25 million US Dollars in equity financing.

Within [***] of the EFFECTIVE DATE, COMPANY shall pay to WHITEHEAD approximately [***] for the CO-EXCLUSIVE CASES, which WHITEHEAD agrees and acknowledges is half of WHITEHEAD'S out-of-pocket expenses incurred for such patent cases, and approximately [***] for the EXCLUSIVE CASES as reimbursement in accordance with Section 6.3, for out-of-pocket expenses related to the filing, prosecution, and maintenance of PATENT RIGHTS incurred as of the EFFECTIVE DATE.

COMPANY shall pay to WHITEHEAD the following MILESTONE PAYMENTS within [***] of the event, whether such event is achieved by COMPANY, its AFFILIATE, its SUBLICENSEE under a SUBLICENSE, or its CORPORATE PARTNER under a CORPORATE PARTNERSHIP. Each MILESTONE PAYMENT is payable once only for the first achievement of such event.

(1) [***];

(2) [***];

(3) [***];

(4) [***].

The License Issue Fee and MILESTONE PAYMENTS in this Section 4.1(a) are not refundable and not creditable.

(b) License Maintenance Fees. COMPANY shall pay to WHITEHEAD the following license maintenance fees on January 1 of each year set forth below:

Year(s)	License Maintenance Fee
2020	$ 25,000
2021,2022	$ 35,000
2023 and every year thereafter	$ 50,000

This license maintenance fee is nonrefundable; however, the license maintenance fee may be credited to royalties due under this Agreement during the same calendar year, if any. License maintenance fees paid in excess of royalties due under this Agreement in such calendar year will not be creditable to royalties due to WHITEHEAD for future years.

(c) Running Royalties on LICENSED PRODUCTS.

(i) On a LICENSED PRODUCT-by-LICENSED PRODUCT and country-by-country basis, COMPANY shall pay to WHITEHEAD a running royalty of: [***] of NET SALES of each LICENSED PRODUCT in a country in the TERRITORY by COMPANY, AFFILIATES, and SUBLICENSEES during the ROYALTY TERM of such LICENSED PRODUCT in such country;

(ii) On an IDENTIFIED PRODUCT-by-IDENTIFIED PRODUCT and country-by-country basis, COMPANY shall pay to WHITEHEAD a running royalty of: [***] of NET SALES of each IDENTIFIED PRODUCT in a country in the TERRITORY by COMPANY or its AFFILIATES, which will be due for a period of [***] from the date of first commercial sale of the first IDENTIFIED PRODUCT anywhere in the world; and

(iii) On an IDENTIFIED PRODUCT-by-IDENTIFIED PRODUCT and country-by-country basis, COMPANY shall pay to WHITEHEAD [***] of any running royalty on net sales (for clarity, not including a sales-based milestone) of an IDENTIFIED PRODUCT received by COMPANY from its SUBLICENSEES or CORPORATE PARTNERS, which will be due for a period of [***] from the date of first commercial sale of the first IDENTIFIED PRODUCT anywhere in the world. For the avoidance of doubt, with respect to any given IDENTIFIED PRODUCT, only an amount under either Section 4.1(c)(ii) or Section 4.1(c)(iii) will be payable by COMPANY (i.e. no double counting).

Running royalties will be payable for each REPORTING PERIOD and will be due to WHITEHEAD within [***] of the end of each REPORTING PERIOD.

The parties expressly agree that such a payment period for IDENTIFIED PRODUCTS is not an extension of the PATENT RIGHTS beyond their term, but rather is a period determined for the convenience of the parties in recognition of the value of the PATENT RIGHTS in discovering IDENTIFIED PRODUCTS and as appropriate compensation for the rights granted herein.

If it is necessary or useful for COMPANY to obtain a license or similar rights to a patent or patent application of a third party in order for COMPANY to manufacture, use, sell, offer to sell or import PRODUCTS in the FIELD (a "Third Party License"), then COMPANY shall have the right to credit [***] of any royalties actually paid by COMPANY, its AFFILIATES or its SUBLICENSEES under such Third Party License in a REPORTING PERIOD against the running royalties otherwise payable to WHITEHEAD under this Section 4.1(c)(i) and 4.1(c)(ii) for PRODUCTS in such calendar quarter; provided that the application of such credits shall not reduce the running royalties otherwise due to WHITEHEAD in any given REPORTING PERIOD by more than [***] and [***].

Upon the expiration of this Agreement, the license grants contained herein to COMPANY will become fully paid-up, royalty-free, perpetual, and irrevocable.

(d) SUBLICENSE AGREEMENTS and CORPORATE PARTNERSHIPS. Subject to this Section 4.1(d), COMPANY shall pay WHITEHEAD [***] before the [***] anniversary of the EFFECTIVE DATE and thereafter, [***], in each case per year for each SUBLICENSE AGREEMENT (including those through multiple tiers) and each CORPORATE PARTNERSHIP, if any. On a case-by case basis, such amounts will be due to WHITEHEAD within [***] of the effective date of the applicable SUBLICENSE AGREEMENT or CORPORATE PARTNERSHIP and annually thereafter until the earlier of (i) the termination of the applicable SUBLICENSE AGREEMENT or CORPORATE PARTNERSHIP and (ii) the date on which all PATENT RIGHTS sublicensed or used, as applicable, in the performance of the relevant SUBLICENSE AGREEMENT or CORPORATE PARTNERSHIP, as applicable, have terminated or expired.

(e) No Multiple Royalties. If the manufacture, use, offer for sale, import, or sale of any LICENSED PRODUCT is covered by more than one of the PATENT RIGHTS, multiple royalties will not be due.

4.2 Payments.

(a) Method of Payment. All payments under this Agreement should be made payable to "Whitehead Institute for Biomedical Research" and sent to WHITEHEAD'S address identified in Section 14.1. Each payment should reference this Agreement ([***]) and identify the obligation under this Agreement that the payment satisfies.

(b) Payments in U.S. Dollars. All payments due under this Agreement will be drawn on a United States bank and will be payable in United States dollars. Conversion of foreign currency to U.S. dollars will be made at the conversion rate existing in the United States (as reported in the *Wall Street Journal)* on the last working day of the calendar quarter of the applicable REPORTING PERIOD. Such payments will be without deduction of exchange, collection, or other charges, and, specifically, without deduction of withholding or similar taxes or other government imposed fees or taxes, except as permitted in the definition of NET SALES.

(c) Late Payments. Any payments by COMPANY that are not paid on or before the date such payments are due under this Agreement will bear interest, to the extent permitted by law, at [***] percentage points above the Prime Rate of interest as reported in the *Wall Street Journal* on the date payment is due.

5. REPORTS AND RECORD KEEPING

5.1 Frequency of Reports.

(a) Before First Commercial Sale. Prior to the first commercial sale of any PRODUCT, COMPANY shall deliver reports to WHITEHEAD annually, within [***] of the end of each calendar year, containing the information described in Section 5.2, as applicable, concerning the immediately preceding calendar year.

(b) Upon First Commercial Sale of a PRODUCT. COMPANY shall report to WHITEHEAD the date of first commercial sale of a PRODUCT within [***] of occurrence in each country.

(c) After First Commercial Sale. After the first commercial sale of a PRODUCT, COMPANY shall deliver reports to WHITEHEAD [***] of the end of each REPORTING PERIOD, containing information described in Section 5.2, as applicable, concerning the immediately preceding REPORTING PERIOD.

5.2 Content of Reports and Payments. Each report delivered by COMPANY to WHITEHEAD will contain at least the following information for the immediately preceding REPORTING PERIOD:

(i) the number of PRODUCTS sold, leased, or distributed by COMPANY, its AFFILIATES, SUBLICENSEES and CORPORATE PARTNERS, to independent third parties in each country;

(ii) the gross price charged by COMPANY, its AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS for each PRODUCT;

(iii) calculation of NET SALES for the applicable REPORTING PERIOD in each country, including a listing of applicable deductions;

(iv) total royalty payable on NET SALES in U.S. dollars under this Agreement, together with the exchange rates used for conversion;

(v) the number of active SUBLICENSE AGREEMENTS and CORPORATE PARTNERSHIPS entered and a description of the PRODUCTS sublicensed in conjunction with the PATENT RIGHTS; and

(vi) the achievement of any COMPANY Diligence Obligations under Section 3.1(b).

If no amounts are due for any REPORTING PERIOD, the report will so state. Notwithstanding any of the foregoing, COMPANY'S reporting obligations pursuant to this Section 5.2 with respect to CORPORATE PARTNERS will be limited to information regarding IDENTIFIED PRODUCTS.

5.3 Recordkeeping. COMPANY shall maintain, and shall cause its AFFILIATES and SUBLICENSEES to maintain, complete and accurate records relating to the rights and obligations under this Agreement and any amounts payable to WHITEHEAD in relation to this Agreement, which records will contain sufficient information to permit WHITEHEAD to confirm the accuracy of any reports delivered to WHITEHEAD and compliance in other respects with this Agreement. COMPANY shall, and shall use reasonable efforts cause its AFFILIATES and SUBLICENSEES to, retain such records for at least [***] years following the end of the calendar year to which they pertain; provided that COMPANY shall require its AFFILIATES and SUBLICENSEES to retain such records for at least [***] years following the end of the calendar year to which they pertain. During such periods of record retention, WHITEHEAD or WHITEHEAD'S appointed independent auditor, shall have the right, at WHITEHEAD'S expense, to inspect such records during normal business hours to verify the accuracy of any reports and payments made or submitted by COMPANY to WHITEHEAD under this Agreement. In the event that any audit performed under this Section 5.3 reveals an underpayment in excess of [***] for the audited time period, COMPANY shall bear the full out-of-pocket cost of such audit and shall remit any amounts due to WHITEHEAD within [***] of receiving notice thereof from WHITEHEAD. Any over-payments revealed by an audit performed under this Section 5.3 shall be credited against other payments due to WHITEHEAD by COMPANY under this Agreement.

6. PATENT PROSECUTION

6.1 Responsibility for PATENT RIGHTS.

(a) WHITEHEAD in its sole discretion, shall prepare, file, prosecute, and maintain all of the PATENT RIGHTS. For purposes of this Agreement, patent prosecution includes ex parte prosecution, interference proceedings, reissues, reexaminations, and oppositions. As long as the license remains in whole or in part exclusive or co-exclusive, WHITEHEAD shall provide, or cause its agent to provide, copies of relevant correspondence or proposed correspondence between WHITEHEAD and the United States Patent Office or the various foreign patent offices, shall give COMPANY reasonable opportunity to advise WHITEHEAD or WHITEHEAD'S counsel on such matters prior to submission of correspondence to the United States Patent Office and various foreign patent offices and shall implement COMPANY'S reasonable comments in good faith. COMPANY shall designate an individual or department for receiving the patent-related correspondence.

(b) COMPANY shall have reasonable opportunities to consult with and advise WHITEHEAD in the preparing, filing, prosecuting, and maintaining the patent applications and patents within PATENT RIGHTS and shall reasonably cooperate with WHITEHEAD in such activities. COMPANY shall provide prompt notice to WHITEHEAD of any non-privileged, public information that comes to its attention that may affect the patentability, validity, or enforceability of any patent application or patent within PATENT RIGHTS. WHITEHEAD shall consider the legitimate interests of COMPANY in performing its responsibility under this Section 6.1 and shall implement in good faith all reasonable comments from COMPANY regarding same.

(c) COMPANY may surrender its licenses under any of the patents or patent applications, or any claim(s) thereof within PATENT RIGHTS in any country of the licensed TERRITORY by giving [***] advance written notice to WHITEHEAD. If COMPANY so surrenders its rights, it will remain responsible for all patent-related expenses reasonably incurred by WHITEHEAD during the applicable notice period, but WHITEHEAD shall take reasonable steps to minimize such expenses. Thereafter, COMPANY will have no further obligation to pay any patent expenses for the patents or patent applications that it surrendered. Notwithstanding the foregoing, if such surrender results in termination of all rights under this Agreement, then the termination notice provision in Section 12.1, below, shall apply.

6.2 International (non-United States) Filings. Appendix C is a list of countries in which patent applications corresponding to the United States patent applications listed in Appendix A will be filed, prosecuted, and maintained. From time to time during the TERM and without limiting COMPANY'S rights under Section 6.1(c), COMPANY may propose additions or deletions to Appendix C and WHITEHEAD shall not unreasonably withhold its consent to such revision. In the event that a PATENT RIGHT is a CO-EXCLUSIVE CASE in one or more countries and an EXCLUSIVE CASE in one or more countries pursuant to Section 2.2, Appendix C shall be, and shall be deemed automatically, updated to reflect such distinction.

6.3 Payment of Expenses.

(a) CO-EXCLUSIVE CASES. COMPANY shall reimburse [***] of all reasonable out-of-pocket fees and costs that have not been reimbursed to WHITEHEAD by a party other than the CO-EXCLUSIVE THIRD PARTY LICENSEE, including reasonable attorneys' fees, relating to the filing, prosecution, and maintenance of the CO-EXCLUSIVE CASES incurred by WHITEHEAD in the relevant countries on Appendix C in which COMPANY has not abandoned rights pursuant to Section 6.1(c), whether such amounts were incurred before or after the EFFECTIVE DATE. For the avoidance of doubt, such fees and costs incurred before the EFFECTIVE DATE are included in the amount set forth in Section 4.1(a) except to the extent such fees and costs have been incurred in the most recent billing cycle but not billed to WHITEHEAD as of the EFFECTIVE DATE.

(b) EXCLUSIVE CASES. COMPANY shall reimburse all reasonable unreimbursed out-of-pocket fees and costs, including reasonable attorneys' fees, relating to the filing, prosecution, and maintenance of the EXCLUSIVE CASES incurred by WHITEHEAD in the relevant countries on Appendix C in which COMPANY has not abandoned rights pursuant to Section 6.1(c), whether such amounts were incurred before or after the EFFECTIVE DATE. For the avoidance of doubt, such fees and costs incurred before the EFFECTIVE DATE are included in the amount set forth in Section 4.1(a).

(c) PAYMENTS. COMPANY shall pay all amounts due pursuant to this Section 6.3 within [***] of receipt of an invoice from WHITEHEAD. Late payments shall accrue interest pursuant to Section 4.2(c). In all instances, WHITEHEAD shall pay the fees prescribed for large entities to the United State Patent and Trademark Office.

6.4 Co-Exclusive Third Party Licensees. [***].

7. INFRINGEMENT

7.1 Notification of Infringement. Each party agrees to provide written notice to the other promptly after becoming aware of any infringement of the PATENT RIGHTS in the FIELD in the TERRITORY for which COMPANY has an exclusive or co-exclusive license.

7.2 Right to Prosecute Infringements.

(a) COMPANY Right to Prosecute for EXCLUSIVE CASES. So long as COMPANY remains the exclusive licensee of the EXCLUSIVE CASES in the FIELD in the TERRITORY, COMPANY, to the extent permitted by law, shall have the right (but not the obligation), under its own control and at its own expense, to prosecute any third- party infringement of the PATENT RIGHTS of the EXCLUSIVE CASES in the FIELD in the TERRITORY, subject to Sections 7.2(c), 7.2(d), 7.4, and 7.5. If required by law, WHITEHEAD shall permit any action under this Section 7.2 to be brought in its name, including being joined as a party-plaintiff, provided that COMPANY shall hold WHITEHEAD harmless from, and indemnify WHITEHEAD against, any out-of-pocket costs, expenses, or liability that WHITEHEAD incurs in connection with such action.

Prior to commencing any such action, COMPANY shall consult with WHITEHEAD and shall consider the views of WHITEHEAD regarding the advisability of the proposed action and its effect on the public interest. COMPANY shall not enter into any settlement, consent judgment, or other voluntary final disposition of any infringement action under this Section 7.2(a) that imposes any financial liability or other obligation on WHITEHEAD, or requires an admission of liability, wrongdoing or fault or a waiver of rights on the part of WHITEHEAD, without the prior written consent of WHITEHEAD, such consent not to be unreasonably withheld, delayed or conditioned.

(b) Right to Prosecute for CO-EXCLUSIVE CASES.

[***] shall have the first right (but not the obligation) to prosecute any third-party infringement of the PATENT RIGHTS of CO-EXCLUSIVE CASES in the FIELD in the TERRITORY [***], under its own control and at its own expense, to prosecute such third-party infringement, subject to Sections 7.2(c), 7.4, and 7.5. Prior to commencing any such action, [***] shall consult with [***] and shall consider the views of [***] regarding the advisability of the proposed action and its effect on the public interest. [***] shall not enter into any settlement, consent judgment, or other voluntary final disposition of any infringement action under this Section 7.2(b) that imposes any financial liability or other obligation on [***] , or requires an admission of liability, wrongdoing or fault or a waiver of rights on the part of [***], without the prior written consent of [***], such consent not to be unreasonably withheld, delayed or conditioned.

For the avoidance of doubt, [***] will have no right to prosecute any third party infringement of the PATENT RIGHTS of CO-EXCLUSIVE CASES in the EXCLUDED ENFORCEMENT FIELD. If [***] receives written permission from [***] to prosecute a third-party infringement of the PATENT RIGHTS of any CO-EXCLUSIVE CASES in the EXCLUDED ENFORCEMENT FIELD in the TERRITORY, then [***] shall have no right to sublicense the PATENT RIGHTS that are subject to such third-party infringement to the party being so prosecuted.

(c) Exception for [***] Rights. Subject to Section 2.6(c)(iii), [***] rights under Section 7.2 of this Agreement (Right to Prosecute Infringements) will exclude infringement of the RELEVANT PATENTS by [***] arising from the practice of SRA Inventions licensed to [***] by WHITEHEAD (and such infringement by [***] arising from the practice of SRA Inventions).

(d) Exception for [***] Rights. Subject to Section 2.6(d), [***] rights under Section 7.2 of this Agreement (Right to Prosecute Infringements) will exclude infringement of [***] of the PATENT RIGHTS by [***].

(e) [***] Right to Prosecute. In the event that [***] is unsuccessful in persuading the alleged infringer to desist or fails to have initiated an infringement action within a reasonable time after [***] first becomes aware of the basis for such action, [***] shall have the right, at its sole discretion but only after good faith consultation with [***], to prosecute such infringement under its sole control and at its sole expense, and any recovery obtained shall belong to [***], but [***] shall reimburse [***] for any costs or expenses incurred in assisting [***] in such action as reasonably requested by [***]. In the event that [***] has chosen not to initiate an infringement action for business reasons, [***] shall consider in good faith [***] reasons for such decision in deciding whether to prosecute such infringement.

7.3 Declaratory Judgment Actions. In the event that a PATENT CHALLENGE or any suit or action alleging that the PATENT RIGHTS are not infringed or unpatentable is brought against [***] or [***] or any AFFILIATES or SUBLICENSEES by a third party, the subject party shall promptly notify the other parties in writing, and [***], at its option and upon written notice to [***], will have the right, but shall not be obligated, within [***] after commencement of such action to take over the sole defense of the action at its own expense. If [***] does not exercise this right, [***] may take over the sole defense of the action at [***] sole expense, but shall not be obligated to do so, subject to Sections 7.4 and 7.5.

7.4 Offsets. COMPANY may offset a total of [***] of any expenses incurred under Sections 7.2 and 7.3 against any payments due to WHITEHEAD under Section 4, provided that in no event shall such payments under Section 4, when aggregated with any other offsets and credits allowed under this Agreement, be reduced by more than [***] in any REPORTING PERIOD.

7.5 Recovery. Any recovery obtained in an action brought by COMPANY under Sections 7.2 or 7.3 will be distributed as follows:

(i) each party will be first reimbursed pro rata for any expenses incurred in the action (including the amount of any royalty or other payments withheld from WHITEHEAD as described in Section 7.4 and any reimbursements paid by a party to another party under Section 7.6);

(ii) as to ordinary damages, if COMPANY will receive an amount equal to its lost profits, COMPANY shall pay to WHITEHEAD based upon such amount [***];

(iii) as to ordinary damages, if COMPANY will receive an amount equal to a reasonable royalty on the infringing sales or whichever measure of damages the court will have applied, COMPANY shall pay to WHITEHEAD [***] of such amount for ordinary damages; and

(iv) as to special or punitive damages, [***].

7.6 Cooperation. Each party agrees to cooperate in any action under this Section 7 which is controlled by any other party, provided that the controlling party reimburses the cooperating parties promptly for any reasonable costs and expenses incurred by the cooperating parties in connection with providing such assistance. If required by law, [***] shall permit any action under Section 7.2 to be brought in its name, including being joined as a party-plaintiff, provided that [***] shall hold [***] harmless from, and indemnify [***] against, any out-of-pocket costs, expenses, or liability that [***] incur in connection with such action.

7.7 Right to Sublicense. So long as COMPANY remains the exclusive licensee of the PATENT RIGHTS of the EXCLUSIVE CASES in the FIELD in the TERRITORY, COMPANY will have the sole right to sublicense any alleged infringer in the FIELD in the TERRITORY for future use of the PATENT RIGHTS in accordance with the terms and conditions of this Agreement relating to sublicenses as set forth in Section 2.4 and payments due under Section 4. So long as COMPANY remains the co-exclusive licensee of the PATENT RIGHTS of the CO-EXCLUSIVE CASES in the FIELD in the TERRITORY, [***].

7.8 Co-Exclusive Third Party Licensee. [***].

8. INDEMNIFICATION AND INSURANCE

8.1 Indemnification.

(a) Indemnity. COMPANY shall indemnify, defend, and hold harmless WHITEHEAD and its trustees, officers, faculty, students, medical and professional staff, employees, and agents and its respective successors, heirs and assigns (the "Indemnitees"), against any liability, damage, loss, or expense (including reasonable attorneys' fees and expenses) incurred by or imposed upon the Indemnitees or any one of them, in connection with any claims, suits, investigations, actions, demands or judgments, in each case brought by a third party, [***].

COMPANY'S indemnification under Sections 8.1(a) does not apply to any liability, damage, loss or expense to the extent that it is attributable to the grossly negligent activities of the Indemnitees, or the fraud or intentional misconduct of the Indemnitees.

(b) Procedures. The Indemnitees agree to provide COMPANY with prompt written notice of any commenced or threatened claim, suit, action, demand, or judgment for which indemnification is sought under this Agreement. COMPANY agrees, at its own expense, to provide attorneys reasonably acceptable to WHITEHEAD to defend against any actions brought or filed against any party indemnified hereunder with respect to the subject of the indemnity contained herein, whether or not such actions are rightfully brought. The Indemnitees shall cooperate with COMPANY in such defense and will permit COMPANY to conduct and control such defense and the disposition of such claim, suit, or action (including all decisions relative to litigation, appeal, and settlement); provided, however, that any Indemnitee shall have the right to retain one (1) member of its own counsel, at the reasonable expense of COMPANY, if representation of such Indemnitee by the counsel retained by COMPANY would be inappropriate due to an ethical conflict. COMPANY agrees to keep WHITEHEAD informed of the progress in the defense and disposition of such claim and to consult with WHITEHEAD with regard to any proposed settlement.

The right and obligation of COMPANY to assume the defense of any action is limited to that part of the action commenced against WHITEHEAD and/or Indemnitees that relates to COMPANY'S obligation of indemnification and holding harmless.

COMPANY shall require any AFFILIATE(S) or SUBLICENSEE(S) to indemnify, hold harmless, and defend WHITEHEAD under the same terms set forth in this Section 8.1.

8.2 Insurance. At such time as any product, process, or service relating to, or developed pursuant to, this Agreement is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by COMPANY or by a SUBLICENSEE(S), AFFILIATE(S) or agent of COMPANY, COMPANY shall obtain and carry in full force and effect commercial general liability insurance, including product liability insurance which shall protect COMPANY and Indemnitees with respect to events covered by Section 8.1. Such insurance will (i) be issued by an insurer licensed to practice in the Commonwealth of Massachusetts or another insurer pre-approved by WHITEHEAD, such approval not to be unreasonably withheld, (ii) list WHITEHEAD as additional insureds thereunder, (iii) be endorsed to include product liability coverage and coverage for property damage, and (iv) require [***] written notice to be given to WHITEHEAD prior to any cancellation or material change thereof. The limits of such insurance will not be less than [***].

In the alternative, if COMPANY elects to self insure all or part of the limits described above (including deductibles or retentions which are in excess of [***] annual aggregate), such self-insurance program must be acceptable to and receive prior approval from WHITEHEAD. COMPANY shall provide WHITEHEAD with Certificates of Insurance evidencing compliance with this Section 8.2 upon request of WHITEHEAD.

COMPANY shall provide WHITEHEAD with written notice at least [***] prior to the cancellation, non renewal or material change in such insurance except that notice of cancellation due to non-payment of premium will be made with notice not less than [***] prior to cancellation; if COMPANY does not obtain replacement insurance providing comparable coverage within such [***] period, WHITEHEAD has the right to terminate this Agreement effective at the end of such [***] period without any notice or additional waiting periods.

The minimum amounts of insurance coverage required under these provisions may not be construed to create a limit of COMPANY'S liability with respect to its indemnification obligation under Section 8.1.

COMPANY shall maintain such comprehensive general liability insurance beyond the expiration or termination of this Agreement during (a) the period that any product, process, or service, relating to, or developed pursuant to, this Agreement is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by COMPANY or by a SUBLICENSEE, AFFILIATE, or agent of COMPANY and (b) a reasonable period after such time as any product, process or service relating to, or developed pursuant to, this Agreement is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals), which in no event shall be less than [***].

COMPANY shall require any AFFILIATE(S) or SUBLICENSEE(S) to maintain insurance in favor of WHITEHEAD and the Indemnitees under the same terms or on terms at least as favorable to WHITEHEAD set forth in this Section 8.2.

9. REPRESENTATIONS OR WARRANTIES

9.1 Representations and Warranties. To its knowledge, as of the EFFECTIVE DATE, WHITEHEAD represents and warrants that: (a) it solely and exclusively owns the patents and applications included within the PATENT RIGHTS free and clear of any liens, charges and encumbrances except as described in Sections 2.6(c)(ii) and 2.6(d); (b) it has the power and authority to grant the licenses provided for herein to COMPANY, and that it has not earlier granted, or assumed any obligation to grant, and will not grant any rights in the PATENT RIGHTS to any third party that would conflict with the rights granted to COMPANY herein; (c) this Agreement constitutes the legal, valid, and binding obligation of WHITEHEAD, enforceable against such WHITEHEAD in accordance with its terms and (d) it has not received notice of any claim made against WHITEHEAD asserting the invalidity, misuse or unenforceability of any PATENT RIGHTS or challenging WHITEHEAD'S ownership of the PATENT RIGHTS and to the best of WHITEHEAD'S knowledge, no such claim has been threatened.

9.2 Limitation on Representations and Warranties. EXCEPT AS MAY OTHERWISE BE EXPRESSLY SET FORTH IN THIS AGREEMENT, WHITEHEAD MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND CONCERNING THE PATENT RIGHTS, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, NONINFRINGEMENT, VALIDITY OF PATENT RIGHTS CLAIMS, WHETHER ISSUED OR PENDING, AND THE ABSENCE OF LATENT OR OTHER DEFECTS, WHETHER OR NOT DISCOVERABLE. Specifically, and not to limit the foregoing, WHITEHEAD makes no warranty or representation (i) regarding the validity or scope of the PATENT RIGHTS, and (ii) that the exploitation of the PATENT RIGHTS or any PRODUCT or LICENSED PROCESS will not infringe any patents or other intellectual property rights of WHITEHEAD or of a third party.

EXCEPT FOR COMPANY'S INDEMNITY OBLIGATIONS UNDER SECTION 8.1, IN NO EVENT SHALL ANY PARTY, THEIR TRUSTEES, DIRECTORS, OFFICERS, EMPLOYEES FACULTY, STUDENTS, MEDICAL AND PROFESSIONAL STAFF, AGENTS, AND AFFILIATES BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING ECONOMIC DAMAGES OR INJURY TO PROPERTY AND LOST PROFITS, REGARDLESS OF WHETHER WHITEHEAD OR COMPANY SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING.

10. ASSIGNMENT

10.1 Assignment by WHITEHEAD. This Agreement is not assignable, in whole or in part, by WHITEHEAD without the prior written consent of COMPANY except that: (i) WHITEHEAD may assign its rights and obligations under this Agreement at any time in connection with the assignment of the PATENT RIGHTS, (ii) WHITEHEAD may assign its right to receive payment hereunder to any third party, (iii) WHITEHEAD may assign this Agreement, in whole or in part, to an AFFILIATE and (iv) WHITEHEAD may assign its rights and obligations under this Agreement to a surviving or acquiring third party entity in connection with the merger, consolidation, or sale of all or substantially all of its assets or that portion of its business to which this Agreement relates (however such transaction is structured), in each case of clauses (i) through (iv) of this Section 10.1, without COMPANY'S prior written consent; provided that any assignee must agree in writing to be bound by the terms and conditions of this Agreement. Any purported assignment by WHITEHEAD not permitted by this Section 10.1 shall be void and of no effect.

10.2 Assignment by COMPANY. This Agreement is personal to COMPANY. This Agreement is not assignable, in whole or in part, by COMPANY without the prior written consent of WHITEHEAD except that: (i) COMPANY may assign this Agreement, in whole or in part, to an AFFILIATE and (ii) COMPANY may assign its rights and obligations under this Agreement to a surviving or acquiring third party entity in connection with the merger, consolidation, or sale of all or substantially all of its assets or that portion of its business to which this Agreement relates (however such transaction is structured), in each case of clauses (i) through (ii) of this Section 10.2, without WHITEHEAD'S prior written consent; provided that any assignee must agree in writing to be bound by the terms and conditions of this Agreement and provided further, however, that if this Agreement is assigned by COMPANY in accordance with clause (ii) of this Section 10.2 within [***] of the EFFECTIVE DATE, COMPANY shall pay to WHITEHEAD an assignment fee of [***], due within thirty [***] of such assignment. Any purported assignment by COMPANY not permitted by this Section 10.2 shall be void and of no effect.

11. GENERAL COMPLIANCE WITH LAWS

11.1 Compliance with Laws. COMPANY shall comply with all local, state, federal, and international laws and regulations relating to the development, manufacture, use, and sale of PRODUCTS and LICENSED PROCESSES.

11.2 Export Control. COMPANY and its AFFILIATES and SUBLICENSEES shall comply with all United States laws and regulations controlling the export of certain commodities and technical data, including without limitation all Export Administration Regulations of the United States Department of Commerce. Among other things, as of the EFFECTIVE DATE, these laws and regulations prohibit, or require a license for, the export of certain types of commodities and technical data to specified countries. COMPANY will comply with, and will cause its AFFILIATES and SUBLICENSEES to comply with, all United States export control laws and regulations. Any violation of such laws and regulations by its AFFILIATES or SUBLICENSEES will be deemed a violation of such laws and regulations by COMPANY under this Agreement and COMPANY will indemnify, defend, and hold WHITEHEAD harmless (in accordance with Section 8.1) for the consequences of any such violation.

11.3 Non-Use of Name. COMPANY and its AFFILIATES and SUBLICENSEES shall not use the name of "Whitehead Institute" or any variation, adaptation, or abbreviation thereof, or of any of their trustees, officers, faculty, students, employees, or agents, or any trademark owned by WHITEHEAD, or, subject to Section 14.3, any terms of this Agreement in any promotional material or other public announcement or disclosure without the prior written consent of the relevant party, which consent such party may withhold in its sole discretion. WHITEHEAD shall not use the name of "CAMP4 Therapeutics Corporation," or any variation, adaptation, or abbreviation thereof, or of any of their directors, officers, employees, or agents, or any trademark owned by COMPANY, or, subject to Section 14.3, any terms of this Agreement in any promotional material or other public announcement or disclosure without the prior written consent of the COMPANY, which consent COMPANY may withhold in its sole discretion. The foregoing notwithstanding, without the consent of WHITEHEAD, COMPANY may make factual statements during the term of this Agreement that COMPANY has a license from WHITEHEAD under one or more of the patents and/or patent applications comprising the PATENT RIGHTS.

11.4 Marking of LICENSED PRODUCTS. To the extent [***], COMPANY shall mark, and shall cause its AFFILIATES and shall use commercially reasonable efforts to cause its SUBLICENSEES to mark, all LICENSED PRODUCTS that are manufactured or sold under this Agreement with the number of each issued patent under the PATENT RIGHTS that applies to such LICENSED PRODUCT.

12. TERMINATION

12.1 Voluntary Termination by COMPANY. COMPANY will have the right to terminate this Agreement for any reason, upon at least [***] prior written notice to WHITEHEAD, such notice to state the date at least [***] in the future upon which termination is to be effective.

12.2 Termination for Default.

(a) Nonpayment. In the event COMPANY fails to pay any amounts due and payable to WHITEHEAD hereunder, and fails to make such payments within [***] after receiving written notice of such failure, WHITEHEAD may terminate this Agreement immediately upon written notice to COMPANY.

(b) Material Breach. In the event COMPANY commits a material breach of its obligations under this Agreement, except for breach as described in Section 12.2(a), and fails to cure that breach within [***] after receiving written notice thereof, WHITEHEAD may terminate this Agreement immediately upon written notice to COMPANY, subject to completion of the dispute resolution process set forth in Section 13 (during which COMPANY'S cure period shall be tolled, including during the [***] prior to any mediation) and subsequent opportunity to cure.

12.3 Effect of Termination.

(a) Survival. The following provisions shall survive the expiration or termination of this Agreement: Sections 1, 4.1(c)(ii) (for obligation to pay royalty on IDENTIFIED PRODUCTS), 5.2 (only for obligation to provide final report and payment), 6.3 (for obligation to pay patent expenses incurred before the EFFECTIVE DATE), 8, 9, 10, 12.3, 13, 14, and 15.

(b) Inventory. Upon the early termination of this Agreement, COMPANY and its AFFILIATES and SUBLICENSEES may complete and sell any work-in-progress and inventory of LICENSED PRODUCTS that exist as of the effective date of termination, provided that:

(i) COMPANY pays WHITEHEAD the applicable running royalty or other amounts due on such sales of LICENSED PRODUCTS in accordance with the terms and conditions of this Agreement; and

(ii) COMPANY and its AFFILIATES and SUBLICENSEES shall complete and sell all work-in-progress and inventory of LICENSED PRODUCTS within [***] after the effective date of termination.

(c) Pre-termination Obligations. In no event shall termination of this Agreement release COMPANY, AFFILIATES, or SUBLICENSEES from the obligation to pay any amounts that became due on or before the effective date of termination.

13. DISPUTE RESOLUTION

13.1 Mandatory Procedures. The parties agree that any dispute arising out of or relating to this Agreement shall be resolved solely by means of the procedures set forth in this Section 13, and that such procedures constitute legally binding obligations that are an essential provision of this Agreement. If any party fails to observe the procedures of this Section 13, as may be modified by their written agreement, the other parties may bring an action for specific performance of these procedures in any court of competent jurisdiction.

13.2 Equitable Remedies. Although the procedures specified in this Section 13 are the sole and exclusive procedures for the resolution of disputes arising out of or relating to this Agreement, any party may seek a preliminary injunction or other provisional equitable relief if, in its reasonable judgment, such action is necessary to avoid irreparable harm to itself or to preserve its rights under this Agreement.

13.3 Dispute Resolution Procedures.

(a) Mediation. In the event any dispute arising out of or relating to this Agreement remains unresolved within [***] days from the date the affected party informed the other party of such dispute, any party may initiate mediation upon written notice to the other party ("Notice Date"), whereupon all parties shall be obligated to engage in a mediation proceeding under [***], except that specific provisions of this Section 13 shall override inconsistent provisions of the [***]. The mediator will be selected from the [***]. If the parties cannot agree upon the selection of a mediator within [***] business days after the Notice Date, then upon the request of any party, the [***] shall appoint the mediator. The parties shall attempt to resolve the dispute through mediation until the first of the following occurs:

(i) the parties reach a written settlement in which case such settlement shall be deemed binding on the parties;

(ii) the mediator notifies the parties in writing that they have reached an impasse;

(iii) the parties agree in writing that they have reached an impasse; or

(iv) the parties have not reached a settlement within [***] days after the Notice Date.

(b) Trial Without Jury. If the parties fail to resolve the dispute through mediation (i.e., clause (ii), (iii) or (iv) of Section 13.3(a) occurs) or if no party elects to initiate mediation [***] days after having the right to do so pursuant to Section 13.3(a), each party shall have the right to pursue any other remedies legally available to resolve the dispute, provided, however, that the parties expressly waive any right to a jury trial in any legal proceeding under this Section 13.

13.4 Performance to Continue. Each party shall continue to perform its undisputed obligations under this Agreement pending final resolution of any dispute arising out of or relating to this Agreement. Nothing in this Section 13 is intended to relieve COMPANY from its obligation to make undisputed payments pursuant to Sections 4 and 6.

13.5 Statute of Limitations. The parties agree that all applicable statutes of limitation and time-based defenses (such as estoppel and laches) shall be tolled while the procedures set forth in Section 13.3(a) are pending. The parties shall cooperate in taking any actions necessary to achieve this result.

14. CONFIDENTIALITY

14.1 Non-disclosure and Non-use.

(a) All proprietary and confidential information ("INFORMATION") disclosed by one party to the other party hereunder shall be maintained in confidence by the receiving party and shall not be disclosed to any third party or used for any purpose except as set forth under this Agreement without the prior written consent of the disclosing party, for a period of [***] years from the expiration or effective date of termination of this Agreement, except to the extent that such INFORMATION:

(i) is known by receiving party at the time of its receipt, and not through a prior disclosure by the disclosing party or its AFFILIATE, as documented by the receiving party's business records;

(ii) is or becomes part of the public domain through no wrongful action of the receiving party or its AFFILIATE;

(iii) is subsequently disclosed to the receiving party by a third party who may lawfully do so and is not under an obligation of confidentiality to the disclosing party or its AFFILIATE;

(iv) is developed by the receiving party independently of information received from the disclosing party or its AFFILIATE, as documented by the receiving party's business records;

(b) Notwithstanding the foregoing, a party may disclose INFORMATION:

(i) to governmental or other regulatory agencies in order to obtain patents or to gain or maintain approval to conduct clinical trials or to market PRODUCTS or LICENSED PROCESSES, provided however that such disclosure may be only to the extent reasonably necessary to obtain patents or authorizations.

(ii) deemed necessary by COMPANY to be disclosed to sublicensees, agents, consultants, and/or other third parties for the development and/or commercialization of a PRODUCT or LICENSED PROCESS, and/or in connection with a licensing/sublicensing transaction and/or a permitted assignment under this Agreement, and/or loan, financing or investment and/or acquisition, merger, consolidation or similar transaction (or for such entities to determine their interest in performing such activities) in each case on the condition that any third party to whom such disclosures are made agree to be bound by a confidentiality agreement.

INFORMATION that is disclosed under Section 14.1(b)(i) or (ii) will remain otherwise subject to the confidentiality and non-use provisions hereof.

14.2 Judicial or Administrative Process. If a party is required by judicial or administrative process to disclose INFORMATION that is subject to the non-disclosure provisions of this Section 14, such party shall promptly inform the other party of the disclosure that is being sought in order to provide the other party an opportunity to challenge or limit the disclosure obligations.

Subject to Section 14.1(a)(ii), INFORMATION that is disclosed by judicial or administrative process shall remain otherwise subject to the confidentiality and non-use provisions hereof, and the disclosing party, pursuant to law or court order, shall take all steps reasonably necessary, including without limitation obtaining an order of confidentiality, to ensure the continued confidential treatment of such Information.

14.3 SEC Filings. Either party may publicly disclose the terms of this Agreement to the extent required, in the reasonable opinion of such party's legal counsel, to comply with applicable laws, including without limitation the rules and regulations promulgated by the United States Securities and Exchange Commission (the "SEC"). Notwithstanding the foregoing, before disclosing this Agreement or any of the terms hereof pursuant to this Section 14.3, the parties will consult with one another on the terms of this Agreement to be redacted in making any such disclosure. If a party discloses this Agreement or any of the terms hereof in accordance with this Section 14.3, such party agrees, at its own expense, to seek confidential treatment of portions of this Agreement or such terms, as may be reasonably requested by the other party.

15. MISCELLANEOUS

15.1 Notice. Any notices required or permitted under this Agreement will be in writing, will specifically refer to this Agreement, and will be sent by hand, recognized national overnight courier, confirmed electronic mail, or registered or certified mail, postage prepaid, return receipt requested, to the following addresses of the parties:

If to WHITEHEAD: Whitehead Institute for Biomedical Research
455 Main Street
Cambridge, MA 02142
Attention: Intellectual Property Office
Tel: 617-258-5000

If to COMPANY: CAMP4 Therapeutics Corporation
One Kendall Square Building
1400 West Suite Bl4301, 3rd Floor
Cambridge, MA 02139
Tel:

All notices under this Agreement will be deemed effective upon receipt. A party may change its contact information immediately upon written notice to the other parties in the manner provided in this Section 15.1.

15.2 Governing Law. This Agreement and all disputes arising out of or related to this Agreement, or the performance, enforcement, breach or termination hereof, and any remedies relating thereto, will be construed, governed, interpreted and applied in accordance with the laws of the Commonwealth of Massachusetts, U.S.A., without regard to conflict of laws principles, except that questions affecting the construction and effect of any patent will be determined by the law of the country in which the patent will have been granted. The state and federal courts having jurisdiction over Cambridge, MA, USA, provide the exclusive forum for any court action between the parties relating to this Agreement. COMPANY and WHITEHEAD submit to the jurisdiction of such courts and waives any claim that such court lacks jurisdiction over WHITEHEAD, COMPANY or its AFFILIATES or constitutes an inconvenient or improper forum.

15.3 Interpretation. Except where the context expressly requires otherwise, (a) the use of any gender herein will be deemed to encompass references to either or both genders, and the use of the singular will be deemed to include the plural (and vice versa), (b) the words “include”, “includes” and “including” will be deemed to be followed by the phrase “without limitation”, (c) the word “will” will be construed to have the same meaning and effect as the word “shall”, (d) any reference herein to any person or entity will be construed to include such person or entity’s successors and assigns, (e) the words “herein”, “hereof” and “hereunder”, and words of similar import, will be construed to refer to this Agreement in its entirety and not to any particular provision hereof, (f) all references herein to Sections or Appendices will be construed to refer to Sections or Appendices of this Agreement, and references to this Agreement include all Sections or Appendices hereto, (g) references to any specific law, rule or regulation, or article, section or other division thereof, will be deemed to include the then-current amendments thereto or any replacement or successor law, rule or regulation thereof, and (h) the term “or” will be interpreted in the inclusive sense commonly associated with the term “and/or.”

15.4 Force Majeure. No party will be responsible for delays resulting from causes beyond the reasonable control of such party, including without limitation, fire, explosion, flood, war, strike, or riot, provided that the nonperforming party uses commercially reasonable efforts to avoid or remove such causes of nonperformance and continues performance under this Agreement with reasonable dispatch whenever such causes are removed.

15.5 Amendment and Waiver. This Agreement may be amended, supplemented, or otherwise modified only by means of a written instrument signed by each of the parties. Any waiver of any rights or failure to act in a specific instance will relate only to such instance and will not be construed as an agreement to waive any rights or fail to act in any other instance, whether or not similar.

15.6 Severability. In the event that any provision of this Agreement is held invalid or unenforceable for any reason, such invalidity or unenforceability will not affect any other provision of this Agreement, and the parties shall negotiate in good faith to modify the Agreement to preserve (to the extent possible under applicable law) their original intent.

15.7 Binding Effect. This Agreement will be binding upon and inure to the benefit of the parties and their respective permitted successors and assigns.

15.8 Headings. All headings are for convenience only and will not affect the meaning of any provision of this Agreement.

15.9 Entire Agreement. This Agreement constitutes the entire agreement between the parties with respect to its subject matter and supersedes all prior agreements or understandings between the parties relating to its subject matter.

[Signatures follow on the next page]

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their duly authorized representatives.

For WHITEHEAD

By: /s/ Carla DeMaria
Name: Carla DeMaria
Title: Director of Intellectual Property & Sponsored Programs
Date: 10/24/19

For COMPANY:

By: /s/ Josh Mandel-Brehm
Name: Josh Mandel-Brehm
Title: CEO
Date: 10/24/19

APPENDIX A

List of Patent Applications and Patents

[***]

APPENDIX B

List of Patent Applications and Patents

[***]

APPENDIX C

List of Countries (excluding United States) for which
PATENT RIGHTS Applications Will Be Filed, Prosecuted and Maintained

[***]

APPENDIX C

RELEVANT PATENTS

[***]

Exhibit 10.2

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF PUBLICLY DISCLOSED

First AMENDMENT to Patent License Agreement

This First Amendment to the Patent License Agreement (this "AMENDMENT") is entered into as of December 14, 2021 (the "AMENDMENT EFFECTIVE DATE"), by and between the Whitehead Institute for Biomedical Research, a Delaware corporation having a principal office at 455 Main Street, Cambridge, MA 02142 ("WHITEHEAD"), and CAMP4 Therapeutics Corporation, a Delaware corporation, having a principal place of business at One Kendall Square Building 1400 West, 3rd Floor, Cambridge, MA 02139 ("COMPANY") (together with WHITEHEAD, the "Parties" and each individually a "Party"), and amends that certain Patent License Agreement, dated as of October 23, 2019, by and between WHITEHEAD and COMPANY (the "Agreement"). Capitalized terms used in this AMENDMENT but not defined shall have the meanings set forth in the Agreement.

Recitals

Whereas, COMPANY and WHITEHEAD are parties to the Agreement pursuant to which WHITEHEAD granted to COMPANY certain rights and licenses under PATENT RIGHTS owned by WHITEHEAD to develop, make, have made, use, sell, offer to sell, lease, and import LICENSED PRODUCTS in the FIELD in the TERRITORY and to perform and have performed LICENSED PROCESSES in the FIELD in the TERRITORY, subject to the terms and conditions set forth in the Agreement, and

Whereas, COMPANY and WHITEHEAD now wish to amend the Agreement as provided herein to, among other things, add a certain additional patent case to the PATENT RIGHTS.

Now Therefore, the Parties agree as follows:

1. **Amendment of Appendix A and Appendix B**. Effective as of the AMENDMENT EFFECTIVE DATE, Appendix A of the Agreement is hereby deleted in its entirety and replaced with Appendix A to this AMENDMENT, and Appendix B of the Agreement is hereby deleted in its entirety and replaced with Appendix B to this AMENDMENT.

2. **Amendment of Certain Definitions**. Effective as of the AMENDMENT EFFECTIVE DATE:

(a) Section 1.11 of the Agreement is hereby deleted in its entirety and replaced with the following:

""IDENTIFIED PRODUCT" will mean any product, other than a LICENSED PRODUCT, (i) first identified, selected, or determined by COMPANY, its AFFILIATE or SUBLICENSEE to have [***] of LICENSED PRODUCTS or LICENSED PROCESSES during the TERM and prior to the [***] of the EFFECTIVE DATE or, solely with respect to [***] and [***], prior to the [***] of the AMENDMENT EFFECTIVE DATE, and (ii) for which COMPANY, its AFFILIATE or SUBLICENSEE receive consideration based on the sales of such product to final customers who are the end users of such product, including consideration from such sales of such product to such final customers made by COMPANY or its AFFILIATE.

(b) Section 1.14 of the Agreement is hereby deleted in its entirety and replaced with the following:

""LICENSED PROCESS" will mean any process (including the provision of any service) of which the use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS; provided, that, solely with respect to the [***], LICENSED PROCESS will mean any process relating to [***] (including the provision of any service) of which the use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS of the [***] (each, a "[***]"). For avoidance of doubt, [***] are a subset of the LICENSED PROCESSES."

(c) Section 1.15 of the Agreement is hereby deleted in its entirety and replaced with the following:

""LICENSED PRODUCT" will mean any product of which the manufacture, use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS; provided, that, solely with respect to the [***], LICENSED PRODUCT will mean any product containing or comprising [***] of which the manufacture, use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS of the [***] (each, a "[***]"). For avoidance of doubt, [***] are a subset of the LICENSED PRODUCTS."

(d) The following is added as new Section 1.19 of the Agreement, and all subsequent sections of Article 1 are renumbered accordingly:

""[***]" will mean PATENT RIGHTS of the case listed in Appendix A as [***]."

3. Amendment of License Grants. Effective as of the AMENDMENT EFFECTIVE DATE, Section 2.1 of the Agreement is hereby deleted in its entirety and replaced with the following:

"License Grants. Subject to the terms of this Agreement (including Sections 2.2 and 2.3 which describe the exclusivity of this grant), WHITEHEAD hereby grants to COMPANY and its AFFILIATES for the TERM a royalty-bearing license under the PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease, and import PRODUCTS in the FIELD in the TERRITORY and to perform and have performed LICENSED PROCESSES in the FIELD in the TERRITORY.

For the avoidance of doubt, solely with respect to the [***], the Parties agree that WHITEHEAD retains the right to grant licenses to third parties under the [***] of the EXCLUSIVE CASES in the FIELD in the TERRITORY to develop, make, have made, use, sell, offer for sale or import PRODUCTS that are not [***], or to perform or have performed LICENSED PROCESSES that are not [***]."

4. Amendment of License Issue Fee and License Maintenance Fees.

(a) License Issue Fee. The Parties acknowledge and agree that prior to the AMENDMENT EFFECTIVE DATE, COMPANY paid to WHITEHEAD a license issue fee of One Hundred Thousand Dollars ($100,000) in accordance with Section 4.1(a) of the Agreement. The following text is hereby added as the final sentence of the first paragraph of Section 4.1(a) of the Agreement:

"In addition, COMPANY shall pay to WHITEHEAD a license issue fee of Twenty-Thousand Dollars ($20,000) within thirty (30) days of the AMENDMENT EFFECTIVE DATE."

(b) License Maintenance Fees. The Parties acknowledge and agree that prior to the AMENDMENT EFFECTIVE DATE, COMPANY paid to WHITEHEAD in accordance with Section 4.1(b) of the Agreement, a license maintenance fee of Twenty-Five Thousand Dollars ($25,000) for calendar year 2020, and a license maintenance fee of Thirty-Five Thousand Dollars ($35,000) for calendar year 2021. Effective as of the AMENDMENT EFFECTIVE DATE, Section 4.1(b) of the Agreement is hereby deleted in its entirety and replaced with the following:

"License Maintenance Fees. COMPANY shall pay to WHITEHEAD the following license maintenance fees on January 1 of each year set forth below:

Year(s)		License Maintenance Fee
2022	$	40,000
2023, 2024	$	55,000
2025 and every year thereafter	$	[***]

This license maintenance fee is nonrefundable; however, the license maintenance fee may be credited to royalties due under this Agreement during the same calendar year, if any. License maintenance fees paid in excess of royalties due under this Agreement in such calendar year will not be creditable to royalties due to WHITEHEAD for future years."

5. Amendment of Payment of Expenses. Effective as of the AMENDMENT EFFECTIVE DATE, Section 6.3(b) of the Agreement is hereby deleted in its entirety and replaced with the following:

"EXCLUSIVE CASES. COMPANY shall reimburse all reasonable unreimbursed out-of-pocket fees and costs, including reasonable attorneys' fees, relating to the filing, prosecution, and maintenance of the EXCLUSIVE CASES incurred by WHITEHEAD in the relevant countries on Appendix C in which COMPANY has not abandoned rights pursuant to Section 6.1(c), whether such amounts were incurred, with respect to the [***], before or after the AMENDMENT EFFECTIVE DATE and, with respect to all other EXCLUSIVE CASES, before or after the EFFECTIVE DATE (such fees and costs, the "PATENT EXPENSES"). For the avoidance of doubt, such PATENT EXPENSES incurred before the AMENDMENT EFFECTIVE DATE with respect to the [***] are approximately [***] through [***], and such PATENT EXPENSES incurred before the EFFECTIVE DATE with respect to all other EXCLUSIVE CASES were paid by COMPANY to WHITEHEAD prior to the AMENDMENT EFFECTIVE DATE.

Solely with respect to [***], if WHITEHEAD licenses such [***] to one or more third parties before or after the AMENDMENT EFFECTIVE DATE, then beginning on the effective date of such third party license(s), COMPANY will reimburse WHITEHEAD for COMPANY'S [***] of PATENT EXPENSES incurred with respect to the [***] equal to the amount of such PATENT EXPENSES divided by the then-applicable number of third party licensees (including COMPANY) under such [***]."

6. **Amendment of Right to Prosecute Infringements**. Effective as of the AMENDMENT EFFECTIVE DATE:

(a) The first paragraph of Section 7.2(a) of the Agreement is hereby deleted in its entirety and replaced with the following:

"COMPANY Right to Prosecute for EXCLUSIVE CASES. So long as COMPANY remains the exclusive licensee of the EXCLUSIVE CASES in the FIELD in the TERRITORY, COMPANY, to the extent permitted by law, shall have the right (but not the obligation), under its own control and at its own expense, to prosecute any third-party infringement of the PATENT RIGHTS of the EXCLUSIVE CASES in the FIELD in the TERRITORY, subject to Sections 7.2(c), 7.2(d), 7.2(e), 7.4, and 7.5. If required by law, WHITEHEAD shall permit any action under this Section 7.2 to be brought in its name, including being joined as a party-plaintiff, provided that COMPANY shall hold WHITEHEAD harmless from, and indemnify WHITEHEAD against, any out-of-pocket costs, expenses, or liability that WHITEHEAD incurs in connection with such action."

(b) The following is added as new Section 7.2(c) of the Agreement, and all subsequent sections of Section 7.2 are renumbered accordingly:

"[***]. COMPANY's rights under Section 7.2 of this Agreement (Right to Prosecute Infringements) with respect to the [***] are limited to the right (but not the obligation) to prosecute any third-party infringement of the [***] in the FIELD in the TERRITORY resulting from the manufacturing, research, development, use or sale of products containing or comprising [***]."

(c) The following text is hereby added as the final sentence of Section 7.7:

"For the avoidance of doubt, solely with respect to the [***], the Parties agree that COMPANY's rights under Section 7.7 of this Agreement (Right to Sublicense) are limited to the sole right to sublicense any alleged infringer in the FIELD in the TERRITORY for future use of the [***] to develop, make, have made, use, sell, offer for sale or import [***], or to perform or have performed [***], in ease case, in accordance with the terms and conditions of this Agreement relating to sublicenses set forth in Section 2.4 and payments due under Section 4."

7. Miscellaneous.

(a) Choice of Law. This AMENDMENT and all disputes arising out of or related to this AMENDMENT, or the performance, enforcement, breach or termination hereof, and any remedies relating thereto, will be construed, governed, interpreted and applied in accordance with the laws of the Commonwealth of Massachusetts, U.S.A., without regard to conflict of laws principles, except that questions affecting the construction and effect of any patent will be determined by the law of the country in which the patent will have been granted. The state and federal courts having jurisdiction over Cambridge, MA, U.S.A., provide the exclusive forum for any court action between the parties relating to this AMENDMENT. COMPANY and WHITEHEAD submit to the jurisdiction of such courts and waive any claim that such courts lack jurisdiction over WHITEHEAD, COMPANY or their respective AFFILIATES or constitutes an inconvenient or improper forum.

(b) Entire Agreement. This AMENDMENT, together with the Agreement, constitutes the sole and entire agreement of the Parties with respect to the subject matter hereof, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter.

(c) Representations and Warranties. Each Party hereby represents and warrants to the other Party that: (i) it has the full right, power and authority to enter into this AMENDMENT and to perform its obligations hereunder and under the Agreement as amended by this AMENDMENT; (ii) the execution of this AMENDMENT by the individual whose signature is set forth at the end of this AMENDMENT on behalf of such Party, and the delivery of this AMENDMENT by such Party, have been duly authorized by all necessary action on the part of such Party; and (iii) this AMENDMENT has been executed and delivered by such Party and (assuming due authorization, execution and delivery by the other Party hereto) constitutes the legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms.

(d) Limited Effect. Except as modified by this AMENDMENT, all other terms and conditions of the Agreement remain in full force and effect.

(e) Counterparts. This AMENDMENT may be executed in counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same agreement. Delivery of an executed counterpart of this AMENDMENT electronically or by facsimile shall be as effective as delivery of an original signed counterpart of this AMENDMENT.

[*Signature page follows*]

In Witness Whereof, the Parties have duly executed and delivered this AMENDMENT as of the AMENDMENT EFFECTIVE DATE.

WHITEHEAD:
Whitehead Institute For
Biomedical Research

By: /s/ Carla DeMaria
Name: Carla DeMaria
Title: Director of Intellectual Property
& Sponsored Programs

COMPANY:
CAMP4 Therapeutics Corporation

By: /s/ Kelly Gold
Name: Kelly Gold
Title: Chief Business Officer

[Signature Page to First Amendment to Collaboration and License Agreement]

APPENDIX A

List of Patent Applications and Patents

[***]

APPENDIX B

List of Patent Applications and Patents

[***]

Exhibit 10.3

CERTAIN CONFIDENTIAL INFORMATION CONTAINED IN THIS DOCUMENT, MARKED BY [***], HAS BEEN OMITTED BECAUSE IT IS NOT MATERIAL AND WOULD LIKELY CAUSE COMPETITIVE HARM TO THE COMPANY IF PUBLICLY DISCLOSED

SECOND AMENDMENT TO PATENT LICENSE AGREEMENT

This Second Amendment to the Patent License Agreement (this "SECOND AMENDMENT") is entered into as of November 7, 2023 (the "SECOND AMENDMENT EFFECTIVE DATE"), by and between the Whitehead Institute for Biomedical Research, a Delaware corporation having a principal office at 455 Main Street, Cambridge, MA 02142 ("WHITEHEAD"), and CAMP4 Therapeutics Corporation, a Delaware corporation, having a principal place of business at One Kendall Square, Building 1400 West, 3rd Floor, Cambridge, MA 02139 ("COMPANY") (together with WHITEHEAD, the "Parties" and each individually a "Party"), and amends the Patent License Agreement dated as of October 23, 2019, and first amended as of December 14, 2021, by and between WHITEHEAD and COMPANY (the "Agreement"; [***]). Capitalized terms used in this SECOND AMENDMENT but not defined shall have the meanings set forth in the Agreement.

RECITALS

WHEREAS, COMPANY and WHITEHEAD are parties to the Agreement pursuant to which WHITEHEAD granted to COMPANY certain rights and licenses under PATENT RIGHTS owned by WHITEHEAD to develop, make, have made, use, sell, offer to sell, lease, and import LICENSED PRODUCTS in the FIELD in the TERRITORY and to perform and have performed LICENSED PROCESSES in the FIELD in the TERRITORY, subject to the terms and conditions set forth in the Agreement, and

WHEREAS, COMPANY and WHITEHEAD now wish to amend the Agreement as provided herein to, among other things, add a certain additional patent case to the PATENT RIGHTS.

NOW THEREFORE, the Parties agree as follows:

(a) Amendment of Appendix A and Appendix B. Effective as of the SECOND AMENDMENT EFFECTIVE DATE, Appendix A of the Agreement is hereby deleted in its entirety and replaced with Appendix A to this SECOND AMENDMENT, and Appendix B of the Agreement is hereby deleted in its entirety and replaced with Appendix B to this SECOND AMENDMENT.

(b) Amendment of Certain Definitions. Effective as of the SECOND AMENDMENT EFFECTIVE DATE:

i. Section 1.11 of the Agreement is hereby deleted in its entirety and replaced with the following:

""IDENTIFIED PRODUCT" will mean any product, other than a LICENSED PRODUCT, (i) first identified, selected, or determined by COMPANY, its AFFILIATE or SUBLICENSEE to have [***] of LICENSED PRODUCTS or LICENSED PROCESSES during the TERM and prior to the [***] of the EFFECTIVE DATE or, solely with respect to [***] and [***], during the period commencing on the AMENDMENT EFFECTIVE DATE and terminating on the [***] of the AMENDMENT EFFECTIVE DATE, and (ii) for which COMPANY, its AFFILIATE or SUBLICENSEE receive consideration based on the sales of such product to final customers who are the end users of such product, including consideration from such sales of such product to such final customers made by COMPANY or its AFFILIATE.

ii. Section 1.14 of the Agreement is hereby deleted in its entirety and replaced with the following:

"LICENSED PROCESS" will mean any process (including the provision of any service) of which the use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS; provided that, solely with respect to the [***], LICENSED PROCESS will mean any process relating to an [***] (including the provision of any service) of which the use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS of the [***] (each, a "[***]"); and that, solely with respect to the [***], LICENSED PROCESS will mean any process relating to an [***] (including the provision of any service) of which the use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS of the [***] (each, a "[***]"). For avoidance of doubt, [***] and [***] are subsets of the LICENSED PROCESSES."

iii. Section 1.15 of the Agreement is hereby deleted in its entirety and replaced with the following:

"LICENSED PRODUCT" will mean any product of which the manufacture, use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS; provided that, solely with respect to the [***], LICENSED PRODUCT will mean any product containing or comprising an [***] of which the manufacture, use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS of the [***] (each, a "[***]"); and that, solely with respect to the [***], LICENSED PRODUCT will mean any product containing or comprising an [***] of which the manufacture, use, sale, offer of sale or importation would, absent the license granted hereunder, infringe one or more VALID CLAIMS of the [***] (each, a "[***]"). For avoidance of doubt, [***] and [***] are subsets of the LICENSED PRODUCTS."

iv. The following is added as new Section 1.27 of the Agreement, and all subsequent sections of Article 1 are renumbered accordingly:

"[***]" will mean PATENT RIGHTS of the case listed in Appendix A as [***]."

(c) Amendment of License Grants. Effective as of the SECOND AMENDMENT EFFECTIVE DATE, Section 2.1 of the Agreement is hereby deleted in its entirety and replaced with the following:

> "License Grants. Subject to the terms of this Agreement (including Sections 2.2 and 2.3 which describe the exclusivity of this grant), WHITEHEAD hereby grants to COMPANY and its AFFILIATES for the TERM a royalty-bearing license under the PATENT RIGHTS to develop, make, have made, use, sell, offer to sell, lease, and import PRODUCTS in the FIELD in the TERRITORY and to perform and have performed LICENSED PROCESSES in the FIELD in the TERRITORY.
>
> For the avoidance of doubt, solely with respect to the [***], the Parties agree that WHITEHEAD retains the right to grant licenses to third parties under the [***] of the EXCLUSIVE CASES in the FIELD in the TERRITORY to develop, make, have made, use, sell, offer for sale or import PRODUCTS that are not [***], or to perform or have performed LICENSED PROCESSES that are not [***]; and that, solely with respect to the [***], the Parties agree that WHITEHEAD retains the right to grant licenses to third parties under the [***] of the EXCLUSIVE CASES in the FIELD in the TERRITORY to develop, make, have made, use, sell, offer for sale or import PRODUCTS that are not [***], or to perform or have performed LICENSED PROCESSES that are not [***]."

(d) Amendment of Retained Rights. Effective as of the SECOND AMENDMENT EFFECTIVE DATE, Section 2.6(c)(ii) of the Agreement is hereby deleted in its entirety and replaced with the following:

> "(ii) COMPANY acknowledges that WHITEHEAD has or will covenant not to bring, directly or indirectly, any demand, claim, lawsuit, or action against [***] relating in any way to the practice or use of any PATENT RIGHTS listed on Appendix D (the "RELEVANT PATENTS") to the extent necessary to allow [***] to practice any of the SRA Inventions that become licensed to [***] by WHITEHEAD (and sublicensees of same). Accordingly, COMPANY has agreed to the terms of Section 7.2(e)."

(e) Amendment of License Issue Fee and License Maintenance Fees.

i. License Issue Fee. The Parties acknowledge and agree that prior to the SECOND AMENDMENT EFFECTIVE DATE, COMPANY paid to WHITEHEAD a license issue fee of One-Hundred-Thousand Dollars ($100,000) and a First Amendment license issue fee of Twenty-Thousand Dollars ($20,000) in accordance with Section 4.1(a) of the Agreement. The following text is hereby added as the final sentence of the first paragraph of Section 4.1(a) of the Agreement:

> "In addition, COMPANY shall pay to WHITEHEAD a license issue fee of Twenty-Thousand Dollars ($20,000) within thirty (30) days of the SECOND AMENDMENT EFFECTIVE DATE."

ii. License Maintenance Fees. The Parties acknowledge and agree that prior to the SECOND AMENDMENT EFFECTIVE DATE, COMPANY paid to WHITEHEAD in accordance with Section 4.1(b) of the Agreement, a license maintenance fee of Twenty-Five Thousand Dollars ($25,000) for calendar year 2020, a license maintenance fee of Thirty-Five Thousand Dollars ($35,000) for calendar year 2021, a license maintenance fee of Forty-Five Thousand Dollars ($45,000) for calendar year 2022, and a license maintenance fee of Fifty-Five Thousand Dollars for calendar year 2023. Effective as of the SECOND AMENDMENT EFFECTIVE DATE, Section 4.1(b) of the Agreement is hereby deleted in its entirety and replaced with the following:

"License Maintenance Fees. COMPANY shall pay to WHITEHEAD the following license maintenance fees on January 1 of each year set forth below:

Year(s)	License Maintenance Fee
2020	$ 25,000
2021	$ 35,000
2022	$ 40,000
2023	$ 55,000
2024	$ 60,000
2025 and every year thereafter	$ [***]

This license maintenance fee is nonrefundable; however, the license maintenance fee may be credited to royalties due under this Agreement during the same calendar year, if any. License maintenance fees paid in excess of royalties due under this Agreement in such calendar year will not be creditable to royalties due to WHITEHEAD for future years."

(f) Amendment of Content of Reports and Payments. Effective as of the SECOND AMENDMENT EFFECTIVE DATE, Section 5.2 of the Agreement is hereby deleted in its entirety and replaced with the following:

5.2 Content of Reports and Payments. Each report delivered by COMPANY to WHITEHEAD will contain at least the following information for the immediately preceding REPORTING PERIOD:

(i) the number of PRODUCTS sold, leased, or distributed by COMPANY, its AFFILIATES, SUBLICENSEES and CORPORATE PARTNERS, to independent third parties in each country;

(ii) the gross price charged by COMPANY, its AFFILIATES, SUBLICENSEES, and CORPORATE PARTNERS for each PRODUCT;

(iii) calculation of NET SALES for the applicable REPORTING PERIOD in each country, including a listing of applicable deductions;

(iv) total royalty payable on NET SALES in U.S. dollars under this Agreement, together with the exchange rates used for conversion;

(v) the number of active SUBLICENSE AGREEMENTS and CORPORATE PARTNERSHIPS entered and a description of the PRODUCTS sublicensed in conjunction with the PATENT RIGHTS;

(vi) the achievement of any COMPANY Diligence Obligations under Section 3.1(b);

(vii) a listing of LICENSED PRODUCTS that are under current development by COMPANY, its AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS and for which a [***] has been initiated or completed by or on behalf of COMPANY, its AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS (if not, the report shall so state); and

(viii) a listing of IDENTIFIED PRODUCTS that are under current development by COMPANY, its AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS and for which a [***] has been initiated or completed by or on behalf of COMPANY, its AFFILIATES, SUBLICENSEES, or CORPORATE PARTNERS; *provided that*, COMPANY need solely include in said listing IDENTIFIED PRODUCTS that were first identified, selected or determined to have biological activity or utility by use of a product or process that would have infringed a VALID CLAIM of the PATENT RIGHTS that is as of the date of the report an issued claim in the United States and that (a) has not been held permanently revoked, unenforceable, or invalid by a decision of a court or governmental agency of competent jurisdiction, which decision is unappealable or unappealed within the time allowed for appeal, and (b) has not been abandoned disclaimed, denied or admitted to be invalid or unenforceable through reissue or disclaimer or otherwise.

(g) Amendment of Payment of Expenses. Effective as of the SECOND AMENDMENT EFFECTIVE DATE, Section 6.3(b) of the Agreement is hereby deleted in its entirety and replaced with the following:

"(b) EXCLUSIVE CASES. COMPANY shall reimburse all reasonable unreimbursed out-of-pocket fees and costs, including reasonable attorneys' fees, relating to the filing, prosecution, and maintenance of the EXCLUSIVE CASES incurred by WHITEHEAD in the relevant countries on Appendix C in which COMPANY has not abandoned rights pursuant to Section 6.1(c), whether such amounts were incurred, with respect to the [***], before or after the SECOND AMENDMENT EFFECTIVE DATE and, with respect to the [***], before or after the AMENDMENT EFFECTIVE DATE and, with respect to all other EXCLUSIVE CASES, before or after the EFFECTIVE DATE (such fees and costs, the "PATENT EXPENSES"). For the avoidance of doubt, such PATENT EXPENSES incurred by WHITEHEAD before the SECOND AMENDMENT EFFECTIVE DATE with respect to the [***] are approximately [***] through [***], and such PATENT EXPENSES incurred by WHITEHEAD before the EFFECTIVE DATE with respect to the [***] and all other EXCLUSIVE CASES were paid by COMPANY to WHITEHEAD prior to the SECOND AMENDMENT EFFECTIVE DATE.

Solely with respect to [***], if WHITEHEAD licenses such [***] to one or more third parties before or after the AMENDMENT EFFECTIVE DATE, then beginning on the effective date of such third party license(s), COMPANY will reimburse WHITEHEAD for COMPANY'S [***] of PATENT EXPENSES incurred with respect to the [***] equal to the amount of such PATENT EXPENSES divided by the then-applicable number of third party licensees (including COMPANY) under such [***].

Solely with respect to [***], if WHITEHEAD licenses such [***] to one or more third parties before or after the SECOND AMENDMENT EFFECTIVE DATE, then beginning on the effective date of such third party license(s), COMPANY will reimburse WHITEHEAD for COMPANY'S [***] of PATENT EXPENSES incurred with respect to the [***] equal to the amount of such PATENT EXPENSES divided by the then-applicable number of third party licensees (including COMPANY) under such [***]."

(g) Amendment of Right to Prosecute Infringements.

i. Effective as of the SECOND AMENDMENT EFFECTIVE DATE, Section 7.2 of the Agreement is hereby deleted in its entirety and replaced with the following:

"7.2 Right to Prosecute Infringements.

(a) COMPANY Right to Prosecute for EXCLUSIVE CASES. So long as COMPANY remains the exclusive licensee of the EXCLUSIVE CASES in the FIELD in the TERRITORY, COMPANY, to the extent permitted by law, shall have the right (but not the obligation), under its own control and at its own expense, to prosecute any third-party infringement of the PATENT RIGHTS of the EXCLUSIVE CASES in the FIELD in the TERRITORY, subject to Sections 7.2(c), 7.2(d), 7.2(e), 7.2(f), 7.4, and 7.5. If required by law, WHITEHEAD shall permit any action under this Section 7.2 to be brought in its name, including being joined as a party-plaintiff, provided that COMPANY shall hold WHITEHEAD harmless from, and indemnify WHITEHEAD against, any out-of-pocket costs, expenses, or liability that WHITEHEAD incurs in connection with such action.

Prior to commencing any such action, COMPANY shall consult with WHITEHEAD and shall consider the views of WHITEHEAD regarding the advisability of the proposed action and its effect on the public interest. COMPANY shall not enter into any settlement, consent judgment, or other voluntary final disposition of any infringement action under this Section 7.2(a) that imposes any financial liability or other obligation on WHITEHEAD, or requires an admission of liability, wrongdoing or fault or a waiver of rights on the part of WHITEHEAD, without the prior written consent of WHITEHEAD, such consent not to be unreasonably withheld, delayed or conditioned.

(b) Right to Prosecute Co-EXCLUSIVE CASES.

[***].

[***].

(c) [***]. COMPANY'S rights under this Section 7.2 with respect to [***] are limited to the right (but not the obligation) to prosecute any third-party infringement of the [***] in the FIELD in the TERRITORY resulting from the manufacturing, research, development, use or sale of products containing or comprising [***].

(d) [***]. COMPANY's rights under this Section 7.2 with respect to the [***] are limited to the right (but not the obligation) to prosecute any third-party infringement of the [***] in the FIELD in the TERRITORY resulting from the manufacturing, research, development, use or sale of products containing or comprising [***].

(e) Exception for [***]. Subject to Section 2.6(c)(iii), COMPANY's rights under this Section 7.2 will exclude infringement of the RELEVANT PATENTS by [***] arising from the practice of SRA Inventions licensed to [***] by WHITEHEAD (and such infringement by [***] arising from the practice of SRA Inventions).

(f) Exception for [***]. Subject to Section 2.6(d), COMPANY'S rights under this Section 7.2 will exclude infringement of [***] of the PATENT RIGHTS by [***].

(g) WHITEHEAD Right to Prosecute. In the event that COMPANY is unsuccessful in persuading the alleged infringer to desist or fails to have initiated an infringement action within a reasonable time after COMPANY first becomes aware of the basis for such action, WHITEHEAD shall have the right [***] to prosecute such infringement under its sole control and at its sole expense, and any recovery obtained shall belong to WHITEHEAD, but WHITEHEAD shall reimburse COMPANY for any costs or expenses incurred in assisting WHITEHEAD in such action as reasonably requested by WHITEHEAD. In the event that COMPANY has chosen not to initiate an infringement action for business reasons, WHITEHEAD shall consider in good faith COMPANY's reasons for such decision in deciding whether to prosecute such infringement."

ii. Effective as of the SECOND AMENDMENT EFFECTIVE DATE, the following text is hereby added as the final sentence of Section 7.7:

"For the avoidance of doubt, solely with respect to the [***], the Parties agree that COMPANY's rights under this Section 7.7 are limited to the sole right to sublicense any alleged infringer in the FIELD in the TERRITORY for future use of the [***] to develop, make, have made, use, sell, offer for sale or import [***], or to perform or have performed [***], in each case, in accordance with the terms and conditions of this Agreement relating to sublicenses set forth in Section 2.4 and payments due under Section 4."

(h) Miscellaneous.

i. Choice of Law. This SECOND AMENDMENT and all disputes arising out of or related to this SECOND AMENDMENT, or the performance, enforcement, breach or termination hereof, and any remedies relating thereto, will be construed, governed, interpreted and applied in accordance with the laws of the Commonwealth of Massachusetts, U.S.A., without regard to conflict of laws principles, except that questions affecting the construction and effect of any patent will be determined by the law of the country in which the patent will have been granted. The state and federal courts having jurisdiction over Cambridge, MA, U.S.A., provide the exclusive forum for any court action between the parties relating to this SECOND AMENDMENT. COMPANY and WHITEHEAD submit to the jurisdiction of such courts and waive any claim that such courts lack jurisdiction over WHITEHEAD, COMPANY or their respective AFFILIATES or constitutes an inconvenient or improper forum.

ii. Entire Agreement. This SECOND AMENDMENT, together with the Agreement, constitutes the sole and entire agreement of the Parties with respect to the subject matter hereof, and supersedes all prior and contemporaneous understandings, agreements, representations and warranties, both written and oral, with respect to such subject matter.

iii. Representations and Warranties. Each Party hereby represents and warrants to the other Party that: (i) it has the full right, power and authority to enter into this SECOND AMENDMENT and to perform its obligations hereunder and under the Agreement as amended by this SECOND AMENDMENT; (ii) the execution of this SECOND AMENDMENT by the individual whose signature is set forth at the end of this SECOND AMENDMENT on behalf of such Party, and the delivery of this SECOND AMENDMENT by such Party, have been duly authorized by all necessary action on the part of such Party; and (iii) this SECOND AMENDMENT has been executed and delivered by such Party and (assuming due authorization, execution and delivery by the other Party hereto) constitutes the legal, valid and binding obligation of such Party, enforceable against such Party in accordance with its terms.

iv. Limited Effect. Except as modified by this SECOND AMENDMENT, all other terms and conditions of the Agreement remain in full force and effect.

v. Counterparts. This SECOND AMENDMENT may be executed in counterparts, each of which shall be deemed an original, but all of which shall constitute one and the same agreement. Delivery of an executed counterpart of this SECOND AMENDMENT electronically or by facsimile shall be as effective as delivery of an original signed counterpart of this SECOND AMENDMENT.

[Signature page follows]

In Witness Whereof, the Parties have duly executed and delivered this SECOND AMENDMENT as of the SECOND AMENDMENT EFFECTIVE DATE.

WHITEHEAD:
Whitehead Institute For Biomedical Research

By: /s/ Carla DeMaria
Name: Carla DeMaria
Title: Director of Intellectual Property & Sponsored Programs

COMPANY:
CAMP4 Therapeutics Corporation

By: /s/ Kelly Gold
Name: Kelly Gold
Title: Chief Business Officer

[Signature Page to Second Amendment to Patent License Agreement]

APPENDIX A

List of Patent Applications and Patents

[***]

APPENDIX B

List of Patent Applications and Patents

[***]

CAMP4 THERAPEUTICS CORPORATION

AMENDED AND RESTATED 2016 STOCK OPTION AND GRANT PLAN

SECTION 1. GENERAL PURPOSE OF THE PLAN; DEFINITIONS

The name of the plan is the CAMP4 Therapeutics Corporation Amended and Restated 2016 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 Camp4 Therapeutics Corporation, 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.

"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 $0.0001 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 42,656,671 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 the maximum number of Shares reserved and available for issuance under the Plan 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. 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.

(c) Termination. Any portion of a Stock Option that is not vested and exercisable on the date of termination of an optionee's Service Relationship shall immediately expire and be null and void. Once any portion of the Stock Option becomes vested and exercisable, the optionee's right to exercise such portion of the Stock Option (or the optionee's representatives and legatees as applicable) in the event of a termination of the optionee's Service Relationship shall continue until the earliest of: (i) the date which is: (A) 12 months following the date on which the optionee's Service Relationship terminates due to death or Disability (or such longer period of time as determined by the Committee and set forth in the applicable Award Agreement), or (B) three months following the date on which the optionee's Service Relationship terminates if the termination is due to any reason other than death or Disability (or such longer period of time as determined by the Committee and set forth in the applicable Award Agreement), or (ii) the Expiration Date set forth in the Award Agreement; provided that notwithstanding the foregoing, an Award Agreement may provide that if the optionee's Service Relationship is terminated for Cause, the Stock Option shall terminate immediately and be null and void upon the date of the optionee's termination and shall not thereafter be exercisable.

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 subsection (d) below of this Section, 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 months following the date of such Termination Event or (B) seven 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) Reserved.

(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 shall not sell or otherwise transfer or dispose of any Shares (including, without limitation, pursuant to Rule 144 under the Securities Act) held by him or her for such period following the effective date of a public offering by the Company of Shares as the Company shall specify reasonably and in good faith. If requested by the underwriter engaged by the Company, each Holder shall execute a separate letter confirming his or her agreement to comply with this Section.

(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 CAMP4 Therapeutics Corporation Amended and Restated 2016 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 12 months thereafter. If the stockholders fail to approve the Plan within 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.

RESTRICTED STOCK AGREEMENT
UNDER THE MARAUDER THERAPEUTICS, INC.
2016 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 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).

(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.

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 the Commonwealth of 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 of purchase of Shares above written.

MARAUDER THERAPEUTICS, 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:

Name:

Address:

[SPOUSE'S CONSENT[1]

I acknowledge that I have read the foregoing Restricted Stock Agreement and understand the contents thereof.

_____]

[1] A spouse's consent is required only if the Grantee's state of residence is one of the following community property states: Arizona, California, Idaho, Louisiana, New Mexico, Nevada, Texas, Washington and Wisconsin.

INCENTIVE STOCK OPTION AGREEMENT
UNDER THE CAMP4 THERAPEUTICS CORPORATION
AMENDED AND RESTATED 2016 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 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 90 days from the date of termination or until the Expiration Date, if earlier; provided however, 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. 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.

(d) 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 months after termination of employment as an employee (or 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 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 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.

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 the Commonwealth of 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 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.

CAMP4 THERAPEUTICS CORPORATION

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:

Name:

Address:

SPOUSE'S CONSENT

I acknowledge that I have read the foregoing Incentive Stock Option Agreement and understand the contents thereof.

_____

DESIGNATED BENEFICIARY:

Beneficiary’s Address:

Appendix A

STOCK OPTION EXERCISE NOTICE

[***]

Exhibit 10.14

LEASE AGREEMENT

THIS LEASE AGREEMENT (this "**Lease**") is made as of this 3 day of October, 2019, between **ARE-MA REGION NO 59**, **LLC**, a Delaware limited liability company ("**Landlord**"), and **CAMP4 THERAPEUTICS CORPORATION**, a Delaware corporation ("**Tenant**").

BASIC LEASE PROVISIONS

Address of Building:	Building 1400, One Kendall Square, Cambridge, MA 02139
Premises:	That portion of the Building in the Project (each as defined below) containing approximately 18,876 rentable square feet, consisting of (i) Suite 14-202 containing approximately 9,772 rentable square feet, (li) Suite 14-203 containing approximately 5,045 rentable square feet, and (iii) Suite 14-309 containing approximately 4,059 rentable square feet, all as determined by Landlord, as shown on **Exhibit A**
Building:	The building in the Project currently known and numbered as 1400, One Kendall Square, Cambridge, Massachusetts, and located on the real property owned by Landlord and described on **Exhibit B** (the "**Property**")
Project:	The project commonly known as One Kendall Square, located on the Property and property owned by affiliates of Landlord and operated as single mixed-use complex.
Base Rent:	$89.00 per rentable square foot of the Premises per year, subject to adjustment as provided in Section 4 below.
Rentable Area of Premises:	18,876 rentable square feet
Rentable Area of Project:	815,467 rentable square feet
Rentable Area of Building:	133,989 rentable square feet
Building's Share of Project:	16.43%
Tenant's Share:	14.09%
Security Deposit:	$1,286,000
Target Commencement Date:	July 1, 2020

Rent Adjustment Percentage: 3%

Base Term: Beginning on the Commencement Date and ending 84 months from the Commencement Date. For clarity, if the Commencement Date occurs on the first day of a month, the Base Term shall be measured from that date If the Commencement Date occurs on a day other than the first day of a month, the Base Term shall be measured from the first day of the following month

Permitted Use: Research and development laboratory, related office and other related uses consistent with the character of the Project and otherwise in compliance with the provisions of Section 7 hereof.

Address for Rent Payment:
ARE-MA Region No. 59, LLC
P O Box 944193 Cleveland, OH 44194-4193

Landlord's Notice Address:
26 North Euclid Avenue
Pasadena, CA 91101
Attention: Corporate Secretary

Tenant's Notice Address:
One Kendall Square, Building 1400
Suite 14-201
Cambridge, MA 02139
Attention: Lease Administrator

The following Exhibits and Addenda are attached hereto and incorporated herein by this reference:

[X] **EXHIBIT A -** DESCRIPTION OF PREMISES
[X] **EXHIBIT B -** DESCRIPTION OF PROPERTY
[X] **EXHIBIT C -** WORK LETTER
[X] **EXHIBIT D-**ACK OF COMMENCEMENT DATE
[X] **EXHIBIT E -** RULES AND REGULATIONS
[X] **EXHIBIT F -** TENANT'S PERSONAL PROPERTY
[X] **EXHIBIT G -** NOTIFICATION OF PRESENCE OF ASBESTOS CONTAINING MATERIALS
[X] **EXHIBIT H -** PRIOR PREMISES

1. **Lease of Premises**. Upon and subject to all of the terms and conditions of this Lease, Landlord hereby leases the Premises to Tenant and Tenant hereby leases the Premises from Landlord. The portions of the Project which are for the non-exclusive use of tenants of the Building are collectively referred to herein as the "**Common Areas**." Subject to the terms and conditions of this Lease, Tenant shall have the appurtenant right to use the Common Areas for their intended uses In addition to other rights reserved herein or by law, Landlord reserves the right from time to time, without material interruption of Tenant's use and access to the Premises (except in emergency): (i) to make additions to or reconstructions of the Building, Property and Project and to install, use, maintain, repair, replace and relocate for service to the Premises or other parts of the Building, Property and/or Project, pipes, ducts, conduits, wires and appurtenant fixtures, wherever located in the Premises, the Building, the Property or elsewhere in the Project, including without limitation, the installation of such facilities in the plenums of the ceilings of the Premises (or, if there is no drop ceiling, within the space above 10 feet of any floor of the Premises), and coring therefor between the ceiling or top surface of any portion of the Premises, and the space above the Premises in the plenum or below the top of the Premises as aforesaid; and (ii) to alter or relocate any Common Area or facility.

From and after the Commencement Date through the expiration of the Term, Tenant shall have access to the Building and the Premises 24 hours a day, 7 days a week, except in the case of emergencies, as the result of Legal Requirements, the performance by Landlord of any installation, maintenance or repairs, or any other temporary interruptions, and otherwise subject to the terms of this Lease.

2. **Delivery**; **Acceptance of Premises**; **Commencement Date**. Landlord shall use reasonable efforts to deliver the Premises to Tenant for the construction by Tenant of the Tenant Improvements under the Work Letter on or before the Target Commencement Date ("Delivery" or "Deliver"). If Landlord fails to timely Deliver the Premises, Landlord shall not be liable to Tenant for any loss or damage resulting therefrom, and this Lease shall not be void or voidable except as provided herein. Notwithstanding anything to the contrary contained herein, if Landlord fails to Deliver the Premises to Tenant on or before the date that is 60 days after the Target Commencement Date (as such date may be extended for Force Majeure (as defined in Section 34 below) delays, the "Abatement Date"), then, commencing on the Commencement Date, Base Rent payable with respect to the Premises shall be abated 1 day for each day from and including the Abatement Date (as such date may be amended for Force Majeure delays) that Landlord fails to Deliver the Premises to Tenant. If Landlord does not Deliver the Premises within 90 days of the Target Commencement Date for any reason other than delays due to Force Majeure, this Lease may be terminated by Tenant by written notice to Landlord, and if so terminated by Tenant: (a) the Security Deposit, or any balance thereof (i.e., after deducting therefrom all amounts to which Landlord is entitled under the provisions of this Lease), shall be returned to Tenant; and (b) neither Landlord nor Tenant shall have any further rights, duties or obligations under this Lease, except with respect to provisions which expressly survive termination of this Lease As used herein, the term "**Tenant Improvements**" shall have the meaning set forth for such term in the Work Letter. If Tenant does not elect to void this Lease within 10 business days of the lapse of such 90 day period, such right to void this Lease shall be waived and this Lease shall remain in full force and effect.

The "**Commencement Date**" shall be the date Landlord Delivers the Premises to Tenant. The "**Rent Commencement Date**" shall be the date that is 5 months after the Commencement Date. Upon request of Landlord, Tenant shall execute and deliver a written acknowledgment of the Commencement Date, the Rent Commencement Date and the expiration date of the Term when such are established in the form of the "Acknowledgement of Commencement Date" attached to this Lease as **Exhibit D**; provided, however, Tenant's failure to execute and deliver such acknowledgment shall not affect Landlord's rights hereunder. The "**Term**" of this Lease shall be the Base Term, as defined above in the Basic Lease Provisions and the Extension Term which Tenant may elect pursuant to Section 39 hereof.

Except as set forth in the Work Letter: (i) Tenant shall accept the Premises in their condition as of the Commencement Date; **(ii)** Landlord shall have no obligation for any defects in the Premises; and (iii) Tenant's taking possession of the Premises shall be conclusive evidence that Tenant accepts the Premises and that the Premises were in good condition at the time possession was taken. Any occupancy of the Premises (not including temporary access for the purposes of inspecting or viewing the Premises) by Tenant before the Commencement Date shall be subject to all of the terms and conditions of this Lease, including the obligation to pay Base Rent and Operating Expenses.

Tenant agrees and acknowledges that, except as otherwise expressly provided in this Lease, neither Landlord nor any agent of Landlord has made any representation or warranty with respect to the condition of all or any portion of the Premises or the Project, and/or the suitability of the Premises or the Project for the conduct of Tenant's business, and Tenant waives any implied warranty that the Premises or the Project are suitable for the Permitted Use. This Lease constitutes the complete agreement of Landlord and Tenant with respect to the subject matter hereof and supersedes any and all prior representations, inducements, promises, agreements, understandings and negotiations which are not contained herein. Landlord in executing this Lease does so in reliance upon Tenant's representations, warranties, acknowledgments and agreements contained herein.

3. **Rent**

(a) **Base Rent**. The first full calendar month's Base Rent shall be due and payable on delivery of an executed copy of this Lease to Landlord. Tenant shall pay to Landlord in advance, without demand, abatement, deduction or set-off, monthly installments of Base Rent on or before the first day of each calendar month during the Term hereof after the Rent Commencement Date, in lawful money of the United States of America, at the office of Landlord for payment of Rent set forth above, or to such other person or at such other place as Landlord may from time to time designate in writing. Payments of Base Rent for any fractional calendar month shall be prorated. If the Commencement Date is other than the first day of a calendar month, the difference between the first full calendar month's Base Rent paid upon delivery of an executed copy of this Lease by Tenant to Landlord as required above, and the prorated Base Rent for the fractional month in which the Commencement Date occurs, shall be applied by Landlord to such first full calendar month after the Commencement Date and Tenant shall pay the remainder of the first full calendar month's rent to Landlord on or before the first day of such first full calendar month. The obligation of Tenant to pay Base Rent, Additional Rent and any other sums to Landlord and the obligations of Landlord under this Lease are independent obligations. Tenant shall have no right at any time to abate, reduce, or set-off any Rent (as defined in Section 5) due hereunder except for any abatement as may be expressly provided in this Lease.

(b) **Additional Rent**. In addition to Base Rent, Tenant agrees to pay to Landlord as additional rent ("**Additional Rent**") (i) commencing on the Rent Commencement Date, Tenant's Share of Operating Expenses (as defined in Section 5), and (ii) any and all other amounts Tenant assumes or agrees to pay under the provisions of this Lease, including, without limitation, any and all other sums that may become due by reason of any default of Tenant or failure to comply with the agreements, terms, covenants and conditions of this Lease to be performed by Tenant, after any applicable notice and cure period.

4. **Base Rent Adjustments**.

(a) **Annual Adjustment**. Base Rent shall be increased on each annual anniversary of the Commencement Date (or, if the Commencement Date occurs on a day other than the first day of a calendar month, then on the first day of the first full calendar month following the Commencement Date) (each an "**Adjustment Date**") by multiplying the Base Rent payable immediately before such Adjustment Date by the Rent Adjustment Percentage and adding the resulting amount to the Base Rent payable immediately before such Adjustment Date. Base Rent, as so adjusted, shall thereafter be due as provided herein. Base Rent adjustments for any fractional calendar month shall be prorated.

(b) **Additional Tl Allowance**. In addition to the Tenant Improvement Allowance (as defined in the Work Letter), Landlord shall, subject to the terms of the Work Letter, make available to Tenant the Additional Tenant Improvement Allowance (as defined in the Work Letter). Commencing on the Rent Commencement Date and continuing thereafter on the first day of each month during the Base Term, Tenant shall pay the amount necessary to fully amortize the portion of the Additional Tenant Improvement Allowance actually funded by Landlord, if any, in equal monthly payments with interest at a rate of 7.5% per annum over the Base Term, which interest shall begin to accrue on the date that Landlord first disburses such Additional Tenant Improvement Allowance or any portion(s) thereof ("**Tl Rent**") Any Tl Rent remaining unpaid as of the expiration or earlier termination of the Lease shall be paid to Landlord in a lump sum at the expiration or earlier termination of this Lease.

5. **Operating Expense Payments**. Landlord shall deliver to Tenant a written estimate of Operating Expenses for each calendar year during the Term (the "**Annual Estimate**"), which may be revised by Landlord from time to time during such calendar year. Commencing on the Rent Commencement Date and continuing thereafter on the first day of each month during the Term, Tenant shall pay Landlord an amount equal to 1/12th of Tenant's Share of the Annual Estimate Payments for any fractional calendar month shall be prorated.

The term "**Operating Expenses**" means all costs and expenses of any kind or description whatsoever incurred or accrued each calendar year by Landlord with respect to the Building and Property (including, without duplication, the Building's Share of Project with respect to all costs and expenses of any kind or description incurred or accrued by Landlord with respect to the Project which are not specific to the Building or Property or any other building or property located in the Project) including, without duplication or limitation, (w) Taxes (as defined in Section 9), (x) capital repairs, replacements and improvements amortized over the lesser of 10 years or the useful life of such capital items (except for capital repairs, replacements and improvements to the roof, which shall be amortized over 15 years), adjusted to reflect Building operations 24 hours per day, 7 days per week and 365 days per year (provided that those Operating Expenses incurred or accrued by Landlord with respect to any capital repairs, replacements or improvements which are for the intended purpose of promoting sustainability (for example, without limitation, by reducing energy usage at the Project) (a "**Capital Sustainability Expenditure**") may be amortized over a shorter period, at Landlord's discretion, to the extent the cost of a Capital Sustainability Expenditure is offset by a reduction in Operating Expenses), (y) transportation services, and (z) the costs of Landlord's third party property manager (not to exceed 2.5% of Base Rent) or, if there is no third party property manager, administration rent in the amount of 2.5% of Base Rent, excluding only:

(a) the original construction costs of the Project and renovation prior to the date of the Lease and costs of correcting defects in such original construction or renovation;

(b) capital expenditures for expansion of the Project;

(c) interest, principal payments of Mortgage (as defined in Section 27) debts of Landlord, financing costs and amortization of funds borrowed by Landlord, whether secured or unsecured and all payments of base rent (but not taxes or operating expenses) under any ground lease or other underlying lease of all or any portion of the Project;

(d) depreciation of the Project (except for capital improvements amortized as provided above, the cost of which are includable in Operating Expenses);

(e) advertising, legal and space planning expenses and leasing commissions and other costs and expenses incurred in procuring and leasing space to tenants for the Project, including any leasing office maintained in the Project, free rent and construction allowances for tenants;

(f) legal and other expenses incurred in the negotiation or enforcement of leases;

(g) completing, fixturing, improving, renovating, painting, redecorating or other work, which Landlord pays for or performs for other tenants within their premises, and costs of correcting defects in such work;

(h) costs required to be reimbursed by other tenants of the Project or Taxes to be paid directly by Tenant or other tenants of the Project, whether or not actually paid;

(i) salaries, wages, benefits and other compensation paid to officers and employees of Landlord who are not assigned in whole or in part to the operation, management, maintenance or repair of the Project;

(j) general organizational, administrative and overhead costs relating to maintaining Landlord's existence, either as a corporation, partnership, or other entity, including general corporate, legal and accounting expenses;

(k) costs (including attorneys' fees and costs of settlement, judgments and payments in lieu thereof) incurred in connection with disputes with tenants, other occupants, or prospective tenants, and costs and expenses, including legal fees, incurred in connection with negotiations or disputes with employees, consultants, management agents, leasing agents, purchasers or mortgagees of the Building or Property;

(l) costs incurred by Landlord due to the violation by Landlord, its employees, agents or contractors or any tenant of the terms and conditions of any lease of space in the Project or any Legal Requirement (as defined in Section 7);

(m) penalties, fines or interest incurred as a result of Landlord's inability or failure to make payment of Taxes and/or to file any tax or informational returns when due, or from Landlord's failure to make any payment of Taxes required to be made by Landlord hereunder before delinquency;

(n) overhead and profit increment paid to Landlord or to subsidiaries or affiliates of Landlord for goods and/or services in or to the Project to the extent the same exceeds the costs of such goods and/or services rendered by unaffiliated third parties on a competitive basis;

(o) costs of Landlord's charitable or political contributions, or of fine art maintained at the Project,

(p) costs in connection with services (including electricity), items or other benefits of a type which are not standard for the Project and which are not available to Tenant without specific charges therefor, but which are provided to another tenant or occupant of the Project, whether or not such other tenant or occupant is specifically charged therefor by Landlord;

(q) costs incurred in the sale or refinancing of the Property or Project;

(r) net income taxes of Landlord or the owner of any interest in the Property or Project, franchise, capital stock, gift, estate or inheritance taxes or any federal, state or local documentary taxes imposed against the Property or Project or any portion thereof or interest therein;

(s) costs or expenses otherwise includable in Operating Expenses to the extent actually reimbursed by insurance policies required to be maintained by Landlord in accordance with Section 17;

(t) Operating Expense reserves (including reserves for Taxes);

(u) rentals of equipment ordinarily considered to be of a capital nature (such as elevators and HVAC systems) except if such equipment is reasonably and customarily leased either temporarily or permanently in the operation of comparable office and laboratory buildings in the Cambridge area,

(v) any costs or expenses that are duplicative of maintenance and repair costs and expenses actually paid by Tenant in satisfaction of Tenant's maintenance and repair obligations pursuant to this Lease;

(w) costs or expenses occasioned by condemnation that are actually recovered by Landlord in any condemnation awards;

(x) costs reimbursed to Landlord under any warranty carried by Landlord for the Project;

(y) any costs incurred to remove, study, test or remediate Hazardous Materials in or about the Premises, the Building or the Project for which Tenant is not responsible under this Lease;

(z) costs arising from the gross negligence or willful misconduct of Landlord or its agents, and employees;

(aa) (aa) costs relating to the compliance of the Common Areas with Legal Requirements as of the Commencement Date as provided in Section 7; and

(bb) (bb) any expenses otherwise includable within Operating Expenses to the extent actually reimbursed by persons other than tenants of the Project under leases for space in the Project.

Within 90 days after the end of each calendar year (or such longer period as may be reasonably required), Landlord shall furnish to Tenant a statement (an "**Annual Statement**") showing in reasonable detail: (a) the total and Tenant's Share of actual Operating Expenses for the previous calendar year, and (b) the total of Tenant's payments in respect of Operating Expenses for such year. If Tenant's Share of actual Operating Expenses for such year exceeds Tenant's payments of Operating Expenses for such year, the excess shall be due and payable by Tenant as Rent within 30 days after delivery of such Annual Statement to Tenant. If Tenant's payments of Operating Expenses for such year exceed Tenant's Share of actual Operating Expenses for such year Landlord shall pay the excess to Tenant within 30 days after delivery of such Annual Statement, except that after the expiration, or earlier termination of the Term or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. Landlord's and Tenant's obligations to pay any overpayments or deficiencies due pursuant to this paragraph shall survive the expiration or earlier termination of this Lease.

The Annual Statement shall be final and binding upon Tenant unless Tenant, within 60 days after Tenant's receipt thereof, shall contest any item therein by giving written notice to Landlord, specifying each item contested and the reason therefor. If, during such 60 day period, Tenant reasonably and in good faith questions or contests the accuracy of Landlord's statement of Tenant's Share of Operating Expenses, Landlord will provide Tenant with access to Landlord's books and records relating to the operation of the Project and such information as Landlord reasonably determines to be responsive to Tenant's questions (the "**Expense Information**"). If after Tenant's review of such Expense Information, Landlord and Tenant cannot agree upon the amount of Tenant's Share of Operating Expenses, then Tenant shall have the right to have an regionally or nationally recognized independent public accounting firm selected by Tenant and approved by Landlord (which approval shall not be unreasonably withheld or delayed), audit and/or review the Expense Information for the year in question, working pursuant to a fee arrangement other than a contingent fee (at Tenant's sole cost and expense) (the "**Independent Review**"). The results of any such Independent Review shall be binding on Landlord and Tenant. If the Independent Review shows that the payments actually made by Tenant with respect to Operating Expenses for the calendar year in question exceeded Tenant's Share of Operating Expenses for such calendar year, Landlord shall at Landlord's option either (i) credit the excess amount to the next succeeding installments of estimated Operating Expenses or (ii) pay the excess to Tenant within 30 days after delivery of such statement, except that after the expiration or earlier termination of this Lease or if Tenant is delinquent in its obligation to pay Rent, Landlord shall pay the excess to Tenant after deducting all other amounts due Landlord. If the Independent Review shows that Tenant's payments with respect to Operating Expenses for such calendar year were less than Tenant's Share of Operating Expenses for the calendar year, Tenant shall pay the deficiency to Landlord within 30 days after delivery of such statement If the Independent Review shows that Tenant has overpaid with respect to Operating Expenses by more than 5% then Landlord shall reimburse Tenant for all costs incurred by Tenant for the Independent Review Operating Expenses for the calendar years in which Tenant's obligation to share therein begins and ends shall be prorated. Notwithstanding anything set forth herein to the contrary, if the Building is not at least 95% occupied on average during any year of the Term, Tenant's Share of Operating Expenses for such year shall be computed as though the Building had been 95% occupied on average during such year.

"**Tenant's Share**" shall be the percentage set forth in the Basic Lease Provisions as Tenant's Share, and "**Building's Share of Project**" shall be the percentage set forth in the Basic Lease Provisions as the Building's Share of Project, each as may be reasonably adjusted by Landlord for changes in the physical size of the Premises, Building, Property or Project occurring thereafter. Landlord may equitably increase Tenant's Share for any item of expense or cost reimbursable by Tenant that relates to a repair, replacement, or service that benefits only the Premises or only a portion of the Building, Property or Project that includes the Premises or that varies with occupancy or use. Landlord may equitably increase the Building's Share of Project for any item of expense or cost reimbursable by Tenant that relates to a repair, replacement, or service that benefits only the Building or only a portion of the Property or Project that includes the Building or that varies with occupancy or use of the Building. Base Rent, Tenant's Share of Operating Expenses and all other amounts payable by Tenant to Landlord hereunder are collectively referred to herein as "**Rent**."

6. **Security Deposit**. Tenant shall deposit with Landlord, pursuant to the immediately following paragraph, a security deposit (the "**Security Deposit**") for the performance of all of Tenant's obligations hereunder in the amount set forth in the Basic Lease Provisions, which Security Deposit shall be in the form of an unconditional and irrevocable letter of credit (the "**Letter of Credit**")**:** (i) in form and substance reasonably satisfactory to Landlord, (ii) naming Landlord as beneficiary, (iii) expressly allowing Landlord to draw upon it at any time from time to time by delivering to the issuer notice that Landlord is entitled to draw thereunder, (iv) issued by an FDIC-insured financial institution satisfactory to Landlord, and (v) redeemable by presentation of a sight draft in the state of Landlord's choice If Tenant does not provide Landlord with a substitute Letter of Credit complying with all of the requirements hereof at least 10 days before the stated expiration date of any then current Letter of Credit, Landlord shall have the right to draw the full amount of the current Letter of Credit and hold the funds drawn in cash without obligation for interest thereon as the Security Deposit. The Security Deposit shall be held by Landlord as security for the performance of Tenant's obligations under this Lease. The Security Deposit is not an advance rental deposit or a measure of Landlord's damages in case of Tenant's default. Upon each occurrence of a Default (as defined in Section 20), Landlord may use all or any part of the Security Deposit to pay delinquent payments due under this Lease, future rent damages and the cost of any damage, injury, expense or liability caused by such Default, without prejudice to any other remedy provided herein or provided by law. Upon any such use of all or any portion of the Security Deposit, Tenant shall pay Landlord on demand the amount that will restore the Security Deposit to the amount set forth in the Basic Lease Provisions. Tenant hereby waives the provisions of any law, now or hereafter in force, which provide that Landlord may claim from a security deposit only those sums reasonably necessary to remedy defaults in the payment of Rent, to repair damage caused by Tenant or to clean the Premises, it being agreed that Landlord may, in addition, claim those sums reasonably necessary to compensate Landlord for any other loss or damage, foreseeable or unforeseeable, caused by the act or omission of Tenant or any officer, employee, agent or invitee of Tenant. Upon bankruptcy or other debtor-creditor proceedings against Tenant, the Security Deposit shall be deemed to be applied first to the payment of Rent and other charges due Landlord for periods prior to the filing of such proceedings. If Tenant shall fully perform every provision of this Lease to be performed by Tenant, the Security Deposit, or any balance thereof (i.e., after deducting therefrom all amounts to which Landlord is entitled under the provisions of this Lease), shall be returned to Tenant (or, at Landlord's option, to the last assignee of Tenant's interest hereunder) within 90 days after the expiration or earlier termination of this Lease.

Pursuant to the terms of the 2016 Lease (as defined in Section 40 below), Landlord currently holds a security deposit in the amount of $721,616.00 (the "**2016 Lease Security Deposit**") as security for Tenant's obligations under the 2016 Lease On or before February 1, 2020, Tenant shall deliver a Letter of Credit in the amount of $559,988.00 as security for Tenant's obligations under this Lease and Landlord shall continue to hold the 2016 Lease Security Deposit as security for the 2016 Lease Within 10 days after the Prior Premises Commencement Date, Tenant shall either amend the existing Letter of Credit to increase it to the amount set forth on page 1 of this Lease or deliver to Landlord a new Letter of Credit in the amount set forth on page 1 of this Lease. Within a reasonable period following Tenant's delivery to Landlord of such amended or replacement Letter of Credit pursuant to the immediately preceding sentence, Landlord shall return the 2016 Lease Security Deposit to Tenant.

If Landlord transfers its interest in the Project or this Lease, Landlord shall either (a) transfer any Security Deposit then held by Landlord to a person or entity assuming Landlord's obligations under this Section 6, or (b) return to Tenant any Security Deposit then held by Landlord and remaining after the deductions permitted herein. Upon such transfer to such transferee or the return of the Security Deposit to Tenant, Landlord shall have no further obligation with respect to the Security Deposit, and Tenant's right to the return of the Security Deposit shall apply solely against Landlord's transferee. The Security Deposit is not an advance rental deposit or a measure of Landlord's damages in case of Tenant's default. Landlord's obligation respecting the Security Deposit is that of a debtor, not a trustee, and no interest shall accrue thereon.

7. **Use**.

(a) **Tenant's Use**. The Premises shall be used solely for the Permitted Use set forth in the Basic Lease Provisions, and in compliance with all laws, orders, judgments, ordinances, regulations, codes, directives, permits, licenses, covenants and restrictions now or hereafter applicable to the Premises, and to the use and occupancy thereof, including, without limitation, the Americans With Disabilities Act, 42 U.S C. § 12101, et seq. (together with the regulations promulgated pursuant thereto, "**ADA**") (collectively, "**Legal Requirements**" and each, a "**Legal Requirement**"). Tenant shall, upon 5 days' written notice from Landlord, discontinue any use of the Premises which is declared by any Governmental Authority (as defined in Section 9) having jurisdiction to be a violation of a Legal Requirement Tenant will not use or permit the Premises to be used for any purpose or in any manner that would void Tenant's or Landlord's insurance, increase the insurance risk, or cause the disallowance of any sprinkler or other credits. Tenant shall not permit any part of the Premises to be used as a "place of public accommodation", as defined in the ADA or any similar legal requirement Tenant shall reimburse Landlord promptly upon demand for any additional premium charged for any such insurance policy by reason of Tenant's failure to comply with the provisions of this Section or otherwise caused by Tenant's use and/or occupancy of the Premises. Tenant will use the Premises in a careful, safe and proper manner and will not commit or permit waste, overload the floor or structure of the Premises, subject the Premises to use that would damage the Premises or obstruct or interfere with the rights of Landlord or other tenants or occupants of the Project, including conducting or giving notice of any auction, liquidation, or going out of business sale on the Premises, or using or allowing the Premises to be used for any unlawful purpose. Tenant shall cause any equipment or machinery to be installed in the Premises so as to reasonably prevent sounds or vibrations from the Premises from extending into Common Areas, or other space in the Project Tenant shall not place any machinery or equipment weighing 500 pounds or more in or upon the Premises or transport or move such items through the Common Areas of the Building or in the Building elevators without the prior written consent of Landlord Except as may be provided under the Work Letter, Tenant shall not, without the prior written consent of Landlord, use the Premises in any manner which will require ventilation, air exchange, heating, gas, steam, electricity or water beyond the existing capacity of the Building as proportionately allocated to the Premises based upon Tenant's Share as usually furnished for the Permitted Use.

Landlord shall be responsible for the compliance of the Common Areas of the Project with Legal Requirements as of the Commencement Date. Following the Commencement Date, Landlord shall, as an Operating Expense (to the extent such Legal Requirement is generally applicable to similar buildings in the area in which the Project is located) and at Tenant's expense (to the extent such Legal Requirement is triggered by reason of Tenant's, as compared to other tenants of the Project, specific particular use of the Premises or Tenant's Alterations) make any alterations or modifications to the Common Areas or the exterior of the Building that are required by Legal Requirements. Except as provided in the 2 immediately preceding sentences, Tenant, at its sole expense, shall make any alterations or modifications to the interior or the exterior of the Premises or the Project that are required by Legal Requirements (including, without limitation, compliance of the Premises with the ADA) related to Tenant's particular use or occupancy of the Premises Notwithstanding any other provision herein to the contrary, Tenant shall be responsible for any and all demands, claims, liabilities, losses, costs, expenses, actions, causes of action, damages or judgments, and all reasonable expenses incurred in investigating or resisting the same (including, without limitation, reasonable attorneys' fees, charges and disbursements and costs of suit) (collectively, "**Claims**") arising out of or in connection with Legal Requirements related to Tenant's particular use or occupancy of the Premises or Tenant's Alterations, and Tenant shall indemnify, defend, hold and save Landlord harmless from and against any and all Claims arising out of or in connection with any failure of the Premises to comply with any Legal Requirement related to Tenant's use or occupancy of the Premises or Tenant Alterations.

(b) **Energy Use Reporting**. Tenant agrees to provide, within 10 business days of request by Landlord, such information and documentation as may be needed for compliance with the City of Cambridge Building Energy Use Disclosure Ordinance, Section 8.67.010 et seq of the Municipal Code of the City of Cambridge (as the same may be amended, the "**Cambridge Building Energy Use Disclosure Ordinance**"), and other such energy or sustainability requirements as may be adopted from time to time by the City of Cambridge or any other governmental authority with jurisdiction over the Building, which information shall include without limitation usage at or by the Premises of electricity, natural gas, steam, hot or chilled water or other energy. Landlord shall report to the applicable governmental authority such energy usage for the Building and other Building information as required by the Cambridge Building Energy Use Disclosure Ordinance.

(c) **LEED** Tenant acknowledges that Landlord may, but shall not be obligated to, seek to obtain Leadership in Energy and Environmental Design (LEED), WELL Building Standard, or other similar "green" certification with respect to the Project and/or the Premises, and Tenant agrees, at no material cost to Tenant, to reasonably cooperate with Landlord, and to provide such information and/or documentation as Landlord may reasonably request, in connection therewith

8. **Holding Over**. If, with Landlord's express written consent, Tenant retains possession of the Premises after the termination of the Term, (i) unless otherwise agreed in such written consent, such possession shall be subject to immediate termination by Landlord at any time, (li) all of the other terms and provisions of this Lease (including, without limitation, the adjustment of Base Rent pursuant to Section 4 hereof) shall remain in full force and effect (excluding any expansion or renewal option or other similar right or option) during such holdover period, (lii) Tenant shall continue to pay Base Rent in the amount payable upon the date of the expiration or earlier termination of this Lease or such other amount as Landlord may indicate, in Landlord's sole and absolute discretion, in such written consent, and (iv) all other payments shall continue under the terms of this Lease. If Tenant remains in possession of the Premises after the expiration or earlier termination of the Term without the express written consent of Landlord, (A) Tenant shall become a tenant at sufferance upon the terms of this Lease except that the monthly rental shall be equal to 150% of Rent in effect during the last 30 days of the Term, and (B) if Tenant holds over in excess of 30 days, then Tenant shall be responsible for all damages suffered by Landlord resulting from or occasioned by Tenant's holding over, including consequential damages. No holding over by Tenant, whether with or without consent of Landlord, shall operate to extend this Lease except as otherwise expressly provided, and this Section 8 shall not be construed as consent for Tenant to retain possession of the Premises Acceptance by Landlord of Rent after the expiration of the Term or earlier termination of this Lease shall not result in a renewal or reinstatement of this Lease

9. **Taxes**. Landlord shall pay, as part of Operating Expenses, all taxes, levies, fees, assessments and governmental charges of any kind, existing as of the Commencement Date or thereafter enacted (collectively referred to as "**Taxes**"), imposed by any federal, state, regional, municipal, local or other governmental authority or agency, including, without limitation, quasi-public agencies (collectively, "**Governmental Authority**") during the Term, including, without limitation, all Taxes, (i) imposed on or measured by or based, in whole or in part, on rent payable to (or gross receipts received by) Landlord under this Lease and/or from the rental by Landlord of the Building, Property or Project or any portion thereof, or (ii) based on the square footage, assessed value or other measure or evaluation of any kind of the Premises, Building, Property or Project or portion thereof, or (iii) assessed or imposed by or on the operation or maintenance of any portion of the Premises, Building, Property or Project, including parking, or (iv) assessed or imposed by, or at the direction of, or resulting from Legal Requirements, or interpretations thereof, promulgated by, any Governmental Authority, or (v) imposed as a license or other fee, charge, tax or assessment on Landlord's business or occupation of leasing space in the Building, Property or Project or portion thereof. Landlord may contest by appropriate legal proceedings the amount, validity, or application of any Taxes or hens securing Taxes. Taxes shall not include any net income taxes imposed on Landlord except to the extent such net income taxes are in substitution for any Taxes payable hereunder. If any such Tax is levied or assessed directly against Tenant, then Tenant shall be responsible for and shall pay the same at such times and in such manner as the taxing authority shall require Operating Expenses hereunder shall also include the cost of tax monitoring services provided to Landlord with respect to the Building, Property or Project. Tenant shall pay, prior to delinquency, any and all Taxes levied or assessed against any personal property or trade fixtures placed by Tenant in the Premises, whether levied or assessed against Landlord or Tenant. If any Taxes on Tenant's personal property or trade fixtures are levied against Landlord or Landlord's property, or if the assessed valuation of the Building, Property or Project is increased by a value attributable to improvements in or alterations to the Premises, whether owned by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, higher than the base valuation on which Landlord from time-to-time allocates Taxes to all tenants in the Building, Property or Project, or portion thereof of which the Premises are a part, Landlord shall have the right, but not the obligation, to pay such Taxes. Landlord's determination of any excess assessed valuation shall be binding and conclusive, absent manifest error. The amount of any such payment by Landlord shall constitute Additional Rent due from Tenant to Landlord immediately upon demand.

10. **Parking and PTDM**.

(a) **Parking and Monthly Parking Charge**. Subject to all applicable Legal Requirements, Force Majeure, a Taking (as defined in Section 19 below), the exercise by Landlord of its rights hereunder, commencing on the Rent Commencement Date, Tenant shall have the right, in common with other tenants of the Project to use (and shall be required to pay Monthly Parking Charges (as defined below) for) 0.9 parking spaces per 1,000 rentable square feet of the Premises ("**Tenant's Parking Allocation**") in the parking facility located at the One Kendall Square Garage located on Binney Street (the "**OKS Garage**"), which parking spaces shall be located in those areas designated for non-reserved parking, subject in each case to Landlord's rules and regulations; provided, however, Landlord may relocate any or all of Tenant's Parking Allocation from the OKS Garage to another parking facility in close proximity to the OKS Garage (i e , being within 0.25 miles of the OKS Garage). Landlord may allocate parking spaces among Tenant and other tenants in the Project pro rata as described above if Landlord determines that such parking facilities are becoming crowded. If, during the Term, Tenant delivers written notice to Landlord requesting additional parking spaces and Landlord determines that the additional parking spaces desired by Tenant are available for use by Tenant, Landlord shall notify Tenant in writing and Tenant shall commence using and paying the Monthly Parking Charge for such additional parking spaces immediately following Landlord's delivery of such written notice to Tenant that such additional parking spaces are available for Tenant's use Landlord shall not be responsible for enforcing Tenant's parking rights against any third parties, including other tenants of the Project. The "**Monthly Parking Charge**" shall mean the market rate monthly charge therefor designated by Landlord, adjusted reasonably and no more frequently than once in any 12-month period, based upon the rates charged by comparable parking facilities in the vicinity of the Project, which Monthly Parking Charge is anticipated as of the Rent Commencement Date equal to $350.00 per space per month, plus applicable taxes.

(b) **Parking and Transportation Demand Management**. There is currently no PTDM (as defined below) in place for the Project. If a PTDM is implemented at any time, Tenant shall, at Tenant's sole expense, for so long as a parking and traffic demand management plan approved by the City of Cambridge (as amended from time to time, the "**PTDM**"), is applicable to the Project, comply with the PTDM as applicable to the Project, including without limitation, as applicable (i) offer to subsidize mass transit monthly passes for all of its employees who work in the Premises in accordance with the terms set forth in the PTDM; (ii) implement a Commuter Choice Program and the MBTA's Corporate Pass Plan; (iii) discourage single-occupant vehicle ("**SOV**") use by its employees; (iv) promote alternative modes of transportation and use of alternative work hours; (v) at Landlord's request, meet with Landlord and/or its representatives no more frequently than quarterly to discuss transportation programs and initiatives; (vi) participate in annual surveys, monitoring transportation programs and initiatives at the Campus, and, without limitation, achieve a sixty (60%) percent response rate for patron surveys; (vii) cooperate with Landlord in connection with transportation programs and initiatives promulgated pursuant to the PTDM; (viii) provide alternative work programs (such as telecommuting, flex-time and compressed work weeks) to its employees in order to reduce traffic impacts in Cambridge during peak commuter hours; (ix) offer an emergency ride home ("**ERH**") through the Charles River Transportation Management Association ("**CRTMA**"), or have its own ERH program, for all employees who commute by non-SOV mode at least 3 days a week and who are eligible to park in the parking spaces in the parking facility described above; (x) cooperate with the Cambridge Office of Workforce Development to expand employment opportunities for Cambridge residents; (xi) become a member of the CRTMA and cause the EZ Ride shuttle service to service the Building; (xii) in the event that the single occupancy vehicle and traffic generation modal split limits of the PTDM are exceeded, charge each user of a parking space the market rate for parking in Kendall Square/East Cambridge therefor; (xiii) comply with the requirements of any other parking and traffic demand management plan to which Tenant may be a party from time to time; (xiii) designate an employee transportation coordinator for the Building; and (xiv) otherwise cooperate with Landlord in encouraging employees to seek alternate modes of transportation.

11. **Utilities**, **Services**.

(a) **Generally**. Landlord shall provide, subject to the terms of this Section 11 water, electricity, heat, light, power, sewer, and other utilities (including gas and fire sprinklers to the extent the Building is plumbed for such services), and refuse and trash collection and janitorial services (collectively, "**Utilities**"). Landlord shall pay, as Operating Expenses or subject to Tenant's reimbursement obligation, for all Utilities used on the Premises, all maintenance charges for Utilities, and any storm sewer charges or other similar charges for Utilities imposed by any Governmental Authority or Utility provider, and any taxes, penalties, surcharges or similar charges thereon. The Premises shall be separately metered to measure Tenant's usage of electricity for lights and plugs. Landlord may cause, at Tenant's expense, any other Utilities to be separately metered or charged directly to Tenant by the provider. Tenant shall pay directly to the Utility provider, prior to delinquency, any separately metered Utilities and services which may be furnished to Tenant or the Premises during the Term. Tenant shall pay, as part of Operating Expenses, its share of all charges for jointly metered Utilities based upon consumption, as reasonably determined by Landlord. No interruption or failure of Utilities, from any cause whatsoever, shall result in eviction or constructive eviction of Tenant, termination of this Lease or, except as provided in the immediately following paragraph, the abatement of Rent.

Notwithstanding anything to the contrary set forth herein, if (i) a stoppage of an Essential Service (as defined below) to the Premises shall occur and such stoppage is due solely to the gross negligence or willful misconduct of Landlord and not due in any part to any act or omission on the part of Tenant or any Tenant Party or any matter beyond Landlord's reasonable control (any such stoppage of an Essential Service being hereinafter referred to as a "**Service Interruption**"), and (ii) such Service Interruption continues for more than 5 consecutive business days after Landlord shall have received written notice thereof from Tenant, and (iii) as a result of such Service Interruption, the conduct of Tenant's normal operations in the Premises are materially and adversely affected, then there shall be an abatement of one day's Base Rent for each day during which such Service Interruption continues after such 5 business day period; provided, however, that if any part of the Premises is reasonably useable for Tenant's normal business operations or if Tenant conducts all or any part of its operations in any portion of the Premises notwithstanding such Service Interruption, then the amount of each daily abatement of Base Rent shall only be proportionate to the nature and extent of the interruption of Tenant's normal operations or ability to use the Premises. The rights granted to Tenant under this paragraph shall be Tenant's sole and exclusive remedy resulting from a failure of Landlord to provide services, and Landlord shall not otherwise be liable for any loss or damage suffered or sustained by Tenant resulting from any failure or cessation of services For purposes hereof, the term "**Essential Services**" shall mean the following services' HVAC service, water, sewer and electricity, but in each case only to the extent that Landlord has an obligation to provide same to Tenant under this Lease. The provisions of this paragraph shall only apply as long as the original Tenant is the tenant occupying the Premises under this Lease and shall not apply to any assignee or sublessee.

Landlord's sole obligation for either providing emergency generators or providing emergency back-up power to Tenant shall be: (i) to provide emergency generators with not less than the capacity of 4 watts per rentable square foot of the then-existing Premises, and (ii) to contract with a third party to maintain the emergency generators as per the manufacturer's standard maintenance guidelines. Tenant is required to provide their own transfer switch and signal cable with feed to the lower level e-power room. Except as otherwise provided in the immediately preceding sentence, Landlord shall have no obligation to provide Tenant with operational emergency generators or back-up power or to supervise, oversee or confirm that the third party maintaining the emergency generators is maintaining the generators as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the emergency generators when the emergency generators are not operational, including any delays thereto due to the inability to obtain parts or replacement equipment, Landlord shall have no obligation to provide Tenant with an alternative back-up generator or generators or alternative sources of back-up power. Tenant expressly acknowledges and agrees that Landlord does not guaranty that such emergency generators will be operational at all times or that emergency power will be available to the Premises when needed. In no event shall Landlord be liable to Tenant or any other party for any damages of any type, whether actual or consequential, suffered by Tenant or any such other person in the event that any emergency generator or back-up power or any replacement thereof fails or does not provide sufficient power.

(b) **Acid Neutralization System**. Landlord shall provide Tenant with access to the acid neutralization system existing as of the Commencement Date ("**Acid Neutralization System**") pursuant to the terms and conditions of this Lease. Tenant acknowledges and agrees that the Acid Neutralization System shall be shared with other tenants of the Project. Tenant's obligation to pay its share of ongoing operation costs shall be allocated among Tenant and other user tenants on a pro rata basis, with Tenant's share based on the ratio of the rentable square footage of the Premises to the sum of the rentable square footages of the Premises and the premises of all other user tenants. Landlord's sole obligations for providing the Acid Neutralization System, or any acid neutralization system facilities, to Tenant shall be (the "**Acid Neutralization Obligations**") to (i) use reasonable efforts to obtain and maintain the permit required from the Massachusetts Water Resources Authority for discharge through the Acid Neutralization System (the "**Discharge Permit**"), provided that Tenant cooperates with Landlord and provides all information and documents necessary in connection with the Discharge Permit, and (ii) contract with a third party to maintain the Acid Neutralization System as operating as per the manufacturer's standard maintenance guidelines. Notwithstanding anything herein to the contrary, if the Acid Neutralization System must be replaced and the cost thereof is not included in such third party maintenance contract, then, Landlord shall replace the Acid Neutralization System, it being acknowledged, however, that Tenant shall be responsible for its share of all costs incurred in connection with the replacement as an Operating Expense.

Tenant shall be solely responsible for the use of the Acid Neutralization System by Tenant, its employees, any sublessees, invitees or any party other than Landlord or Landlord's contractors, and Tenant shall be jointly and severally responsible for the use of the Acid Neutralization System with the other user tenants. Tenant shall use, and cause other parties under its control or for which it is responsible to use, the Acid Neutralization System in accordance with this Lease and in accordance with all applicable Legal Requirements, the Discharge Permit and any permits and approvals from Governmental Authorities for or applicable to Tenant's use of the Acid Neutralization System. Tenant shall not take any action or make any omission that would result in a violation of the Discharge Permit or any other permit or Legal Requirements applicable to the Acid Neutralization System. The scope of the Decommissioning and HazMat Closure Plan (as defined in Section 28 of this Lease) shall include all actions for the proper cleaning, decommissioning and cessation of Tenant's use of the Acid Neutralization System, and all requirements under this Lease for the surrender of the Premises shall also apply to Tenant's cessation of use of the Acid Neutralization System, in each case whether at Lease expiration, termination or prior thereto (but Tenant shall not be required to complete the decommissioning of the Acid Neutralization System if other tenants or occupants will continue to use the same after the expiration or earlier termination of the Lease, nor shall Tenant be responsible for or bear any costs of decommissioning arising from the use of the Acid Neutralization System by any party other than Tenant; it being agreed that if multiple tenants use the Acid Neutralization System, then Landlord shall be responsible for completing the decommissioning thereof, and Tenant shall pay to Landlord within thirty (30) days after invoice therefor Tenant's share of the reasonable, actual costs of decommissioning based on the ratio of the rentable square footage of the Premises to the rentable square footage of the Premises and the premises of all other user tenants). The obligations of Tenant under this Lease with respect to the Acid Neutralization System shall be joint and several with such other tenants as aforesaid, except in the event that Tenant can prove to Landlord's reasonable satisfaction that neither Tenant nor any Tenant Party caused, contributed to or exacerbated the matter for which Tenant would otherwise be responsible but for this exception. Without in any way limiting the Acid Neutralization Obligations, Landlord shall have no obligation to provide Tenant with operational emergency or back-up acid neutralization facilities or to supervise, oversee or confirm that the third party maintaining the Acid Neutralization System is maintaining such system as per the manufacturer's standard guidelines or otherwise. During any period of replacement, repair or maintenance of the Acid Neutralization System when such system is not operational, including any delays thereto due to the inability to obtain parts or replacement equipment, Landlord shall have no obligation to provide Tenant with an alternative back-up system or facilities. Tenant expressly acknowledges and agrees that Landlord does not guaranty that such Acid Neutralization System will be operational at all times or that such system will be available to the Premises when needed. Without in any way limiting the Acid Neutralization Obligations, in no event shall Landlord be liable to Tenant or any other party for any damages of any type, whether actual or consequential, suffered by Tenant or any such other person in the event that the Acid Neutralization System or back-up system, if any, or any replacement thereof fails or does not operate in a manner that meets Tenant's requirements.

12. **Alterations and Tenant's Property**. Any alterations, additions, or improvements made to the Premises by or on behalf of Tenant, including additional locks or bolts of any kind or nature upon any doors or windows in the Premises, but excluding installation, removal or realignment of furniture systems (other than removal of furniture systems owned or paid for by Landlord) not involving any modifications to the structure or connections (other than by ordinary plugs or jacks) to Building Systems (as defined in Section 13) ("**Alterations**") shall be subject to Landlord's prior written consent, which may be given or withheld in Landlord's sole discretion if any such Alteration affects the structure or Building Systems, but which shall otherwise not be unreasonably withheld or delayed. Tenant may construct nonstructural Alterations in the Premises without Landlord's prior approval if the aggregate cost of all such work in any 12 month period does not exceed $25,000 (a "**Notice-Only Alteration**"), provided Tenant notifies Landlord in writing of such intended Notice-Only Alteration, and such notice shall be accompanied by plans, specifications, work contracts and such other information concerning the nature and cost of the Notice-Only Alteration as may be reasonably requested by Landlord, which notice and accompanying materials shall be delivered to Landlord not less than 15 business days in advance of any proposed construction. If Landlord approves any Alterations, Landlord may impose such conditions on Tenant in connection with the commencement, performance and completion of such Alterations as Landlord may deem appropriate in Landlord's reasonable discretion. Any request for approval shall be in writing, delivered not less than 15 business days in advance of any proposed construction, and accompanied by plans, specifications, bid proposals, work contracts and such other information concerning the nature and cost of the alterations as may be reasonably requested by Landlord, including the identities and mailing addresses of all persons performing work or supplying materials. Landlord's right to review plans and specifications and to monitor construction shall be solely for its own benefit, and Landlord shall have no duty to ensure that such plans and specifications or construction comply with applicable Legal Requirements. Tenant shall cause, at its sole cost and expense, all Alterations to comply with insurance requirements and with Legal Requirements and shall implement at its sole cost and expense any alteration or modification required by Legal Requirements as a result of any Alterations. Tenant shall pay to Landlord, as Additional Rent, on demand, an amount equal to the reasonable out-of-pocket costs incurred by Landlord with respect to each Alteration. Before Tenant begins any Alteration, Landlord may post on and about the Premises notices of non-responsibility pursuant to applicable law. Tenant shall reimburse Landlord for, and indemnify and hold Landlord harmless from, any expense incurred by Landlord by reason of faulty work done by Tenant or its contractors, delays caused by such work, or inadequate cleanup.

Tenant shall, upon Landlord's request, furnish security or make other arrangements satisfactory to Landlord to assure payment for the completion of all Alterations work free and clear of liens, and shall complete all Alterations work free and clear of liens. With respect to all Alterations, Tenant shall provide (and cause each contractor or subcontractor to provide) certificates of insurance for workers' compensation and other coverage in amounts and from an insurance company satisfactory to Landlord protecting Landlord against liability for personal injury or property damage during construction. Upon completion of any Alterations, Tenant shall deliver to Landlord, (i) sworn statements setting forth the names of all contractors and subcontractors who did the work and final lien waivers from all such contractors and subcontractors; and (ii) "as built" plans for any such Alteration.

Other than (i) the items, if any, listed on **Exhibit F** attached hereto, (ii) any items agreed by Landlord in writing to be included on **Exhibit F** in the future, and (iii) any trade fixtures, machinery, equipment and other personal property not paid for out of the Tl Fund (as defined in the Work Letter) which may be removed without material damage to the Premises, which damage shall be repaired (including capping or terminating utility hook-ups behind walls) by Tenant during the Term (collectively, "**Tenant's Property**"), all property of any kind paid for with the Tl Fund, all Alterations, real property fixtures, built-in machinery and equipment, built-in casework and cabinets and other similar additions and improvements built into the Premises so as to become an integral part of the Premises, such as fume hoods which penetrate the roof or plenum area, built-in cold rooms, built-in warm rooms, walk-in cold rooms, walk-in warm rooms, deionized water systems, glass washing equipment, autoclaves, chillers, built-in plumbing, electrical and mechanical equipment and systems, and any power generator and transfer switch (collectively, "**Installations**") shall be and shall remain the property of Landlord during the Term and following the expiration or earlier termination of the Term, shall not be removed by Tenant at any time during the Term and shall remain upon and be surrendered with the Premises as a part thereof in accordance with Section 28 following the expiration or earlier termination of this Lease; provided, however, that Landlord shall, at the time its approval of such Installation is requested, or at the time it receives notice of a Notice-Only Alteration, notify Tenant if it has elected to cause Tenant to remove such Installation upon the expiration or earlier termination of this Lease. If Landlord so elects, Tenant shall remove such Installation upon the expiration or earlier termination of this Lease and restore any damage caused by or occasioned as a result of such removal, including, when removing any of Tenant's Property which was plumbed, wired or otherwise connected to any of the Building Systems, capping off all such connections behind the walls of the Premises and repairing any holes. During any such restoration period, Tenant shall pay Rent to Landlord as provided herein as if said space were otherwise occupied by Tenant.

13. **Landlord's Repairs**. Landlord, as an Operating Expense, shall maintain all of the structural, exterior, parking and other Common Areas of the Building and Property, including HVAC, plumbing, fire sprinklers, elevators and all other building systems serving the Premises and other portions of the Building ("**Building Systems**"), in good repair, reasonable wear and tear and uninsured losses and damages caused by Tenant, or by any of Tenant's assignees, sublessees, licensees, agents, servants, employees, invitees and contractors (or any of Tenant's assignees, sublessees and/or licensees respective agents, servants, employees, invitees and contractors) (collectively, "**Tenant Parties**") excluded. Losses and damages caused by Tenant or any Tenant Party shall be repaired by Landlord, to the extent not covered by insurance, at Tenant's sole cost and expense. Landlord reserves the right to stop Building Systems services when necessary (i) by reason of accident or emergency, or (ii) for planned repairs, alterations or improvements, which are, in the judgment of Landlord, desirable or necessary to be made, until said repairs, alterations or improvements shall have been completed Landlord shall have no responsibility or liability for failure to supply Building Systems services during any such period of interruption; provided, however, that Landlord shall, except in case of emergency, make a commercially reasonable effort to give Tenant 24 hours advance notice of any planned stoppage of Building Systems services for routine maintenance, repairs, alterations or improvements. Tenant shall promptly give Landlord written notice of any repair required by Landlord pursuant to this Section, after which Landlord shall have a reasonable opportunity to effect such repair Landlord shall not be liable for any failure to make any repairs or to perform any maintenance unless such failure shall persist for an unreasonable time after Tenant's written notice of the need for such repairs or maintenance. Tenant waives its rights under any state or local law to terminate this Lease or to make such repairs at Landlord's expense and agrees that the parties' respective rights with respect to such matters shall be solely as set forth herein. Repairs required as the result of fire, earthquake, flood, vandalism, war, or similar cause of damage or destruction shall be controlled by Section 18.

14. **Tenant's Repairs**. Subject to Section 13 above, Tenant, at its expense, shall repair, replace and maintain in good condition all portions of the Premises, including, without limitation, entries, doors, ceilings, interior windows, interior walls, and the interior side of demising walls Should Tenant fail to make any such repair or replacement or fail to maintain the Premises, Landlord shall give Tenant notice of such failure. If Tenant fails to commence cure of such failure within 10 days of Landlord's notice, and thereafter diligently prosecute such cure to completion, Landlord may perform such work and shall be reimbursed by Tenant within 10 business days after demand therefor, provided, however, that if such failure by Tenant creates or could create an emergency, Landlord may immediately commence cure of such failure and shall thereafter be entitled to recover the costs of such cure from Tenant Subject to Sections 17 and 18, Tenant shall bear the full uninsured cost of any repair or replacement to any part of the Project that results from damage caused by Tenant or any Tenant Party and any repair that benefits only the Premises.

15. **Mechanic's Liens**. Tenant shall discharge, by bond or otherwise, any mechanic's lien filed against the Premises or against the Building, Property or Project for work claimed to have been done for, or materials claimed to have been furnished to, Tenant within 10 days after the filing thereof, at Tenant's sole cost and shall otherwise keep the Premises and the Building, Property and Project free from any liens arising out of work performed, materials furnished or obligations incurred by Tenant. Should Tenant fail to discharge any lien described herein, Landlord shall have the right, but not the obligation, to pay such claim or post a bond or otherwise provide security to eliminate the lien as a claim against title to the Building, Property or Project and the cost thereof shall be immediately due from Tenant as Additional Rent. If Tenant shall lease or finance the acquisition of office equipment, furnishings, or other personal property of a removable nature utilized by Tenant in the operation of Tenant's business, Tenant warrants that any Uniform Commercial Code Financing Statement filed as a matter of public record by any lessor or creditor of Tenant will upon its face or by exhibit thereto indicate that such Financing Statement is applicable only to removable personal property of Tenant located within the Premises. In no event shall the address of the Building or Project be furnished on the statement without qualifying language as to applicability of the lien only to removable personal property, located in an identified suite held by Tenant.

16. **Indemnification**. Tenant hereby indemnifies and agrees to defend, save and hold Landlord, its officers, directors, employees, managers, agents, sub-agents, constituent entities and lease signators (collectively, "**Landlord Indemnified Parties**") and Holders of Mortgages (each as defined in Section 27 below) as to which Tenant has been given notice harmless from and against any and all Claims for injury or death to persons or damage to property occurring within or about the Premises, arising directly or indirectly out of the use or occupancy of the Premises or the Project by Tenant or any Tenant Parties (including, without limitation, any act, omission or neglect by Tenant or any Tenant Parties in or about the Premises or at the Project) or a breach or default by Tenant in the performance of any of its obligations hereunder, except to the extent caused by the willful misconduct or negligence of Landlord Indemnified Parties Landlord Indemnified Parties shall not be liable to Tenant for, and Tenant assumes all risk of damage to, personal property (including, without limitation, loss of records kept within the Premises). Tenant further hereby irrevocably waives any and all Claims for injury to Tenant's business or loss of income relating to any such damage or destruction of personal property (including, without limitation, any loss of records). Landlord Indemnified Parties shall not be liable for any damages arising from any act, omission or neglect of any tenant in the Project or of any other third party

17. **Insurance**. Landlord shall maintain all risk property and, if applicable, sprinkler damage insurance covering the full replacement cost of the Building. Landlord shall further procure and maintain commercial general liability insurance with a single loss limit of not less than $2,000,000 for bodily injury and property damage with respect to the Project. Landlord may, but is not obligated to, maintain such other insurance and additional coverages as it may deem necessary, including, but not limited to, flood, environmental hazard and earthquake, loss or failure of building equipment, errors and omissions, rental loss during the period of repair or rebuilding, workers' compensation insurance and fidelity bonds for employees employed to perform services and insurance for any improvements installed by Tenant or which are in addition to the standard improvements customarily furnished by Landlord without regard to whether or not such are made a part of the Project. All such insurance shall be included as part of the Operating Expenses. The Building and Property may be included in a blanket policy (in which case the cost of such insurance allocable to the Building and Property will be determined by Landlord based upon the insurer's cost calculations/ Tenant shall also reimburse Landlord for any increased premiums or additional insurance which Landlord reasonably deems necessary as a result of Tenant's particular use of the Premises.

Tenant, at its sole cost and expense, shall maintain during the Term: all risk property insurance with business interruption and extra expense coverage, covering the full replacement cost of all property and improvements installed or placed in the Premises by Tenant at Tenant's expense; workers' compensation insurance with no less than the minimum limits required by law, employer's liability insurance with employers liability limits of $1,000,000 bodily injury by accident - each accident, $1,000,000 bodily injury by disease - policy limit, and $1,000,000 bodily injury by disease - each employee; and commercial general liability insurance, with a minimum limit of not less than $2,000,000 per occurrence for bodily injury and property damage with respect to the Premises. The commercial general liability insurance maintained by Tenant shall name Alexandria Real Estate Equities, Inc., and Landlord, its officers, directors, employees, managers, agents, sub-agents, constituent entities and lease signators (collectively, "**Landlord Insured Parties**"), as additional insureds; insure on an occurrence and not a claims-made basis, be issued by insurance companies which have a rating of not less than policyholder rating of A and financial category rating of at least Class X in "Best's Insurance Guide"; shall not be cancelable for nonpayment of premium unless 30 days prior written notice shall have been given to Landlord from the insurer, not contain a hostile fire exclusion; contain a contractual liability endorsement; and provide primary coverage to Landlord Insured Parties (any policy issued to Landlord Insured Parties providing duplicate or similar coverage shall be deemed excess over Tenant's policies, regardless of limits). Copies of such policies (if requested by Landlord), or certificates of insurance showing the limits of coverage required hereunder and showing Landlord as an additional insured, along with reasonable evidence of the payment of premiums for the applicable period, shall be delivered to Landlord by Tenant prior to (i) the earlier to occur of (x) the Commencement Date, or (y) the date that Tenant accesses the Premises under this Lease, and (ii) each renewal of said insurance. Tenant's policy may be a "blanket policy" with an aggregate per location endorsement which specifically provides that the amount of insurance shall not be prejudiced by other losses covered by the policy. Tenant shall, at least 5 days prior to the expiration of such policies, furnish Landlord with renewal certificates.

In each instance where insurance is to name Landlord as an additional insured, Tenant shall upon written request of Landlord also designate and furnish certificates so evidencing Landlord as additional insured to. (i) any lender of Landlord holding a security interest in the Building, Property or Project or any portion thereof and any servicer in connection therewith, (ii) the landlord under any lease wherein Landlord is tenant of the real property on which the Building, Property or Project is located, if the interest of Landlord is or shall become that of a tenant under a ground or other underlying lease rather than that of a fee owner, and/or (iii) any management company retained by Landlord to manage the Project.

The property insurance obtained by Landlord and Tenant shall include a waiver of subrogation by the insurers and all rights based upon an assignment from its insured, against Landlord or Tenant, and their respective officers, directors, employees, managers, agents, invitees and contractors ("**Related Parties**"), in connection with any loss or damage thereby insured against. Neither party nor its respective Related Parties shall be liable to the other for loss or damage caused by any risk insured against under property insurance required to be maintained hereunder, and each party waives any claims against the other party, and its respective Related Parties, for such loss or damage The failure of a party to insure its property shall not void this waiver. Landlord and its respective Related Parties shall not be liable for, and Tenant hereby waives all claims against such parties for, business interruption and losses occasioned thereby sustained by Tenant or any person claiming through Tenant resulting from any accident or occurrence in or upon the Premises, Building, Property or Project from any cause whatsoever. If the foregoing waivers shall contravene any law with respect to exculpatory agreements, the liability of Landlord or Tenant shall be deemed not released but shall be secondary to the other's insurer.

Landlord may require insurance policy limits to be raised to conform with requirements of Landlord's lender and/or to bring coverage limits to levels then being generally required of new tenants within the Project; provided, however, that the increased amount of coverage is consistent with coverage amounts then being required by institutional owners of similar projects with tenants occupying similar size premises in the geographical area in which the Project is located.

18. **Restoration**. If, at any time during the Term, the Project or the Premises are damaged or destroyed by a fire or other insured casualty, Landlord shall notify Tenant within 60 days after discovery of such damage as to the amount of time Landlord reasonably estimates it will take to restore the Project or the Premises, as applicable (the "**Restoration Period**"). If the Restoration Period is estimated to exceed 9 months (the "**Maximum Restoration Period**"), Landlord may, in such notice, elect to terminate this Lease as of the date that is 75 days after the date of discovery of such damage or destruction; provided, however, that notwithstanding Landlord's election to restore, Tenant may elect to terminate this Lease by written notice to Landlord delivered within 5 business days of receipt of a notice from Landlord estimating a Restoration Period for the Premises longer than the Maximum Restoration Period. Unless either Landlord or Tenant so elects to terminate this Lease, Landlord shall, subject to receipt of sufficient insurance proceeds (with any deductible to be treated as a current Operating Expense), promptly restore the Premises (excluding the improvements installed by Tenant or by Landlord and paid for by Tenant), subject to delays arising from the collection of insurance proceeds, from Force Majeure events or as needed to obtain any license, clearance or other authorization of any kind required to enter into and restore the Premises issued by any Governmental Authority having jurisdiction over the use, storage, handling, treatment, generation, release, disposal, removal or remediation of Hazardous Materials (as defined in Section 30) in, on or about the Premises (collectively referred to herein as "**Hazardous Materials Clearances**"); provided, however, that if repair or restoration of the Premises is not substantially complete as of the end of the Maximum Restoration Period or, if longer, the Restoration Period, Landlord may, in its sole and absolute discretion, elect not to proceed with such repair and restoration, or Tenant may by written notice to Landlord delivered within 5 business days of the expiration of the Maximum Restoration Period or, if longer, the Restoration Period, elect to terminate this Lease, in which event Landlord shall be relieved of its obligation to make such repairs or restoration and this Lease shall terminate as of the date that is 75 days after the later of (i) discovery of such damage or destruction, or (ii) the date all required Hazardous Materials Clearances are obtained, but Landlord shall retain any Rent paid and the right to any Rent payable by Tenant prior to such election by Landlord or Tenant.

Tenant, at its expense, shall promptly perform, subject to delays arising from the collection of insurance proceeds, from Force Majeure (as defined in Section 34) events or to obtain Hazardous Material Clearances, all repairs or restoration not required to be done by Landlord and shall promptly reenter the Premises and commence doing business in accordance with this Lease. Notwithstanding the foregoing, either Landlord or Tenant may terminate this Lease upon written notice to the other if the Premises are damaged during the last year of the Term and Landlord reasonably estimates that it will take more than 2 months to repair such damage, provided, however, that such notice is delivered within 10 business days after the date that Landlord provides Tenant with written notice of the estimated Restoration Period Notwithstanding anything to the contrary contained in this Lease, Landlord shall also have the right to terminate this Lease if insurance proceeds are not available for such restoration, provided that such unavailability of insurance proceeds is not the result of Landlord's failure to maintain the insurance policies required to be maintained by Landlord under Section 17. Rent shall be abated from the date all required Hazardous Material Clearances are obtained until the Premises are repaired and restored, in the proportion which the area of the Premises, if any, which is not usable by Tenant bears to the total area of the Premises, unless Landlord provides Tenant with other space during the period of repair that is suitable for the temporary conduct of Tenant's business Such abatement shall be the sole remedy of Tenant, and except as provided in this Section 18, Tenant waives any right to terminate the Lease by reason of damage or casualty loss.

The provisions of this Lease, including this Section 18, constitute an express agreement between Landlord and Tenant with respect to any and all damage to, or destruction of, all or any part of the Premises, or any other portion of the Building, Property or Project, and any statute or regulation which is now or may hereafter be in effect shall have no application to this Lease or any damage or destruction to all or any part of the Premises or any other portion of the Building, Property or Project, the parties hereto expressly agreeing that this Section 18 sets forth their entire understanding and agreement with respect to such matters.

19. **Condemnation**. If the whole or any material part of the Premises, Building or Property is taken for any public or quasi-public use under governmental law, ordinance, or regulation, or by right of eminent domain, or by private purchase in lieu thereof (a "**Taking**" or "**Taken**"), and the Taking would in Landlord's reasonable judgment materially interfere with or impair Landlord's ownership or operation of the Building or Property, or would in the reasonable judgment of Landlord and Tenant either prevent or materially interfere with Tenant's use of the Premises (as resolved, if the parties are unable to agree, by arbitration by a single arbitrator with the qualifications and experience appropriate to resolve the matter and appointed pursuant to and acting in accordance with the rules of the American Arbitration Association), then upon written notice by Landlord or Tenant to the other this Lease shall terminate and Rent shall be apportioned as of said date. If part of the Premises shall be Taken, and this Lease is not terminated as provided above, Landlord shall promptly restore the Premises and the Building and Property as nearly as is commercially reasonable under the circumstances to their condition prior to such partial Taking and the rentable square footage of the Building, the rentable square footage of the Premises, Tenant's Share of Operating Expenses, the Building's Share of Project and the Rent payable hereunder during the unexpired Term shall be reduced to such extent as may be fair and reasonable under the circumstances. Upon any such Taking, Landlord shall be entitled to receive the entire price or award from any such Taking without any payment to Tenant, and Tenant hereby assigns to Landlord Tenant's interest, if any, in such award. Tenant shall have the right, to the extent that same shall not diminish Landlord's award, to make a separate claim against the condemning authority (but not Landlord) for such compensation as may be separately awarded or recoverable by Tenant for moving expenses and damage to Tenant's trade fixtures, if a separate award for such items is made to Tenant. Tenant hereby waives any and all rights it might otherwise have pursuant to any provision of state law to terminate this Lease upon a partial Taking of the Premises, Building, Property or Project.

20. **Events of Default**. Each of the following events shall be a default ("Default") by Tenant under this Lease**.**

(a) **Payment Defaults** Tenant shall fail to pay any installment of Rent or any other payment hereunder when due; provided, however, that Landlord will give Tenant notice and an opportunity to cure any failure to pay Rent within 5 business days of any such notice not more than once in any 12 month period and Tenant agrees that such notice shall be in lieu of and not in addition to, or shall be deemed to be, any notice required by law.

(b) **Insurance**. Any insurance required to be maintained by Tenant pursuant to this Lease shall be canceled or terminated or shall expire or shall be reduced or materially changed, or Landlord shall receive a notice of nonrenewal of any such insurance and Tenant shall fail to obtain replacement insurance at least 20 days before the expiration of the current coverage.

(c) **Abandonment** Tenant shall abandon the Premises.

(d) **Improper Transfer**. Tenant shall assign, sublease or otherwise transfer or attempt to transfer all or any portion of Tenant's interest in this Lease or the Premises except as expressly permitted herein, or Tenant's interest in this Lease shall be attached, executed upon, or otherwise judicially seized and such action is not released within 90 days of the action.

(e) **Liens**. Tenant shall fail to discharge, or otherwise obtain the release of any lien placed upon the Premises in violation of this Lease within 10 days after any such lien is filed against the Premises.

(f) **Insolvency Events**. Tenant or any guarantor or surety of Tenant's obligations hereunder shall- (A) make a general assignment for the benefit of creditors; (B) commence any case, proceeding or other action seeking to have an order for relief entered on its behalf as a debtor or to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, liquidation, dissolution or composition of it or its debts or seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or of any substantial part of its property (collectively a "**Proceeding for Relief**"); (C) become the subject of any Proceeding for Relief which is not dismissed within 90 days of its filing or entry; or (D) die or suffer a legal disability (if Tenant, guarantor, or surety is an individual) or be dissolved or otherwise fail to maintain its legal existence (if Tenant, guarantor or surety is a corporation, partnership or other entity).

(g) **Estoppel Certificate or Subordination Agreement**. Tenant fails to execute any document required from Tenant under Sections 23 or 27 within 5 days after a second notice requesting such document.

(h) **Other Defaults**. Tenant shall fail to comply with any provision of this Lease other than those specifically referred to in this Section 20, and, except as otherwise expressly provided herein, such failure shall continue for a period of 30 days after written notice thereof from Landlord to Tenant.

Any notice given under Section 20(h) hereof shall- (i) specify the alleged default, (ii) demand that Tenant cure such default, (iii) be in lieu of, and not in addition to, or shall be deemed to be, any notice required under any provision of applicable law, and (iv) not be deemed a forfeiture or a termination of this Lease unless Landlord elects otherwise in such notice; provided that if the nature of Tenant's default pursuant to Section 20(h) is such that it cannot be cured by the payment of money and reasonably requires more than 30 days to cure, then Tenant shall not be deemed to be in default if Tenant commences such cure within said 30 day period and thereafter diligently prosecutes the same to completion, provided, however, that such cure shall be completed no later than 90 days from the date of Landlord's notice.

21. **Landlord's Remedies**

(a) **Payment By Landlord**; **Interest** Upon a Default by Tenant hereunder, Landlord may, without waiving or releasing any obligation of Tenant hereunder, make such payment or perform such act. All sums so paid or incurred by Landlord, together with interest thereon, from the date such sums were paid or incurred, at the annual rate equal to 12% per annum or the highest rate permitted by law (the "Default Rate"), whichever is less, shall be payable to Landlord on demand as Additional Rent. Nothing herein shall be construed to create or impose a duty on Landlord to mitigate any damages resulting from Tenant's Default hereunder.

(b) **Late Payment Rent** Late payment by Tenant to Landlord of Rent and other sums due will cause Landlord to incur costs not contemplated by this Lease, the exact amount of which will be extremely difficult and impracticable to ascertain. Such costs include, but are not limited to, processing and accounting charges and late charges which may be imposed on Landlord under any Mortgage covering the Premises. Therefore, if any installment of Rent due from Tenant is not received by Landlord within 5 days after the date such payment is due, Tenant shall pay to Landlord an additional sum of 6% of the overdue Rent as a late charge. The parties agree that this late charge represents a fair and reasonable estimate of the costs Landlord will incur by reason of late payment by Tenant. In addition to the late charge, Rent not paid when due shall bear interest at the Default Rate from the 5th day after the date due until paid.

(c) **Remedies**. Upon the occurrence of a Default, Landlord, at its option, without further notice or demand to Tenant, shall have in addition to all other rights and remedies provided in this Lease, at law or in equity, the option to pursue any one or more of the following remedies, each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever (except as otherwise expressly provided in Section 21(c)(v) with respect to Landlord's Lump Sum Election). No cure in whole or in part of such Default by Tenant after Landlord has taken any action beyond giving Tenant notice of such Default to pursue any remedy provided for herein (including retaining counsel to file an action or otherwise pursue any remedies) shall in any way affect Landlord's right to pursue such remedy or any other remedy provided Landlord herein or under law or in equity, unless Landlord, in its sole discretion, elects to waive such Default.

(i) This Lease and the Term and estate hereby granted are subject to the limitation that whenever a Default shall have happened and be continuing, Landlord shall have the right, at its election, then or thereafter while any such Default shall continue and notwithstanding the fact that Landlord may have some other remedy hereunder or at law or in equity, to give Tenant written notice of Landlord's intention to terminate this Lease on a date specified in such notice, which date shall be not less than 5 days after the giving of such notice, and upon the date so specified, this Lease and the estate hereby granted shall expire and terminate with the same force and effect as if the date specified in such notice were the date hereinbefore fixed for the expiration of this Lease, and all rights of Tenant hereunder shall expire and terminate, and Tenant shall be liable as hereinafter in this Section 21(c) provided. If any such notice is given, Landlord shall have, on such date so specified, the right of re-entry and possession of the Premises and the right to remove all persons and property therefrom and to store such property in a warehouse or elsewhere at the risk and expense, and for the account, of Tenant Should Landlord elect to re-enter as herein provided or should Landlord take possession pursuant to legal proceedings or pursuant to any notice provided for by law, Landlord may, subject to Section 21(c)(n) from time to time re-let the Premises or any part thereof for such term or terms and at such rental or rentals and upon such terms and conditions as Landlord may deem advisable, with the right to make commercially reasonable alterations in and repairs to the Premises.

(ii) Landlord shall be deemed to have satisfied any obligation to mitigate its damages by hiring an experienced commercial real estate broker to market the Premises and directing such broker to advertise and show the Premises to prospective tenants.

(iii) In the event of any termination of this Lease as in this Section 21 provided or as required or permitted by law or in equity, Tenant shall forthwith quit and surrender the Premises to Landlord, and Landlord may, without further notice, enter upon, re-enter, possess and repossess the same by summary proceedings, ejectment or otherwise, and again have, repossess and enjoy the same free of any rights of Tenant, and in any such event Tenant and no person claiming through or under Tenant by virtue of any law or an order of any court shall be entitled to possession or to remain in possession of the Premises.

(iv) If this Lease is terminated or if Landlord shall re-enter the Premises as aforesaid, or in the event of the termination of this Lease, or of re-entry, by or under any proceeding or action or any provision of law by reason of a Default by Tenant, Tenant covenants and agrees forthwith to pay and be liable for, on the days originally fixed in this Lease for the payment thereof, amounts equal to the installments of Base Rent and all Additional Rent as they would, under the terms of this Lease become due if this Lease had not been terminated or if Landlord had not entered or re-entered, as aforesaid, and whether the Premises be relet or remain vacant, in whole or in part, or for a period less than the remainder of the Term, or for the whole thereof, but in the event that the Premises be relet by Landlord, Tenant shall be entitled to a credit in the net amount of rent and other charges received by Landlord in reletting, after deduction of all of Landlord's expenses incurred in reletting the Premises (including, without limitation, tenant improvement, demising and remodeling costs, brokerage fees and the like), and in collecting the rent in connection therewith, in the following manner: Amounts received by Landlord after reletting, if any, shall first be applied against such Landlord's expenses, until the same are recovered, and until such recovery, Tenant shall pay, as of each day when a payment would fall due under this Lease, the amount which Tenant is obligated to pay under the terms of this Lease (Tenant's liability prior to any such reletting and such recovery by Landlord no in any way to be diminished as a result of the fact that such reletting might be for a rent higher than the rent provided for in this Lease); when and if such expenses have been completely recovered by Landlord, the amounts received from reletting by Landlord as have not previously been applied shall be credited against Tenant's obligations as of each day when a payment would fall due under this Lease, and only the net amount thereof shall be payable by Tenant. Further, Tenant shall not be entitled to any credit of any kind for any period after the date when the Term of this Lease is scheduled to expire according to its terms.

Actions, proceedings or suits for the recovery of damages, whether liquidated or other damages, under this Lease, or any installments thereof, may be brought by Landlord from time to time at its election, and nothing contained herein shall be deemed to require Landlord to postpone suit until the date when the Term of this Lease would have expired if it had not been terminated hereunder.

(v) In addition, Landlord, at its election, notwithstanding any other provision of this Lease, by written notice to Tenant (the "**Lump Sum Election**"), shall be entitled to recover from Tenant, as and for liquidated damages, at any time following any termination of this Lease, a lump sum payment representing, at the time of Landlord's written notice of its Lump Sum Election, the sum of:

(A) the then present value (calculated in accordance with accepted financial practice using as the discount rate the yield to maturity on United States Treasury Notes as set forth below) of the amount of unpaid Base Rent and Additional Rent that would have been payable pursuant to this Lease for the remainder of the Term following Landlord's Lump Sum Election if this Lease had not been terminated, and

(B) all other damages and expenses (including attorneys' fees and expenses), if any, which Landlord shall have sustained by reason of the breach of any provision of this Lease; less

(C) the then present value (calculated in accordance with accepted financial practice using as the discount rate the yield to maturity on United States Treasury Notes as set forth below) of the aggregate net fair market rent plus additional charges payable for the Premises (if less than the then present value of Base Rent and Additional Rent that would have been payable pursuant to this Lease) for the remainder of the Term following Landlord's Lump Sum Election, calculated as of the date of Landlord's Lump Sum Election, and taking into account reasonable estimates of the future costs to relet any then vacant portions of the Premises (except to the extent that Tenant has actually paid such costs pursuant to this Section 21) in order to calculate the net rental revenue that Landlord may expect to obtain for the Premises for the balance of the Term.

Landlord's recovery under its Lump Sum Election shall be in addition to Tenant's obligations to pay Base Rent and Additional Rent due and costs incurred prior to the date of Landlord's Lump Sum Election, and in lieu of any Base Rent and Additional Rent which would otherwise have been due under this Section from and after the date of Landlord's Lump Sum Election The yield to maturity on United States Treasury Notes having a maturity date that is nearest the date that would have been the last day of the Term of the Lease, as reported in the Wall Street Journal or a comparable publication if it ceases to publish such yields, shall be used in calculating present values for purposes of Landlord's Lump Sum Election. For the purposes of this Section, if Landlord makes the Lump Sum Election to recover liquidated damages in accordance with this Section, the total Additional Rent shall be computed based upon Landlord's reasonable estimate of Tenant's Share of Operating Expenses and other Additional Rent for each 12-month period in what would have been the remainder of the Term of the Lease and any part thereof at the end of such remainder of the Term, but in no event less than the amounts therefor payable for the twelve (12) calendar months (or if less than twelve (12) calendar months have elapsed since the date hereof, the partial year) immediately preceding the date of Landlord's Lump Sum Election. Amounts of Tenant's Share of Operating Expenses and any other Additional Rent for any partial year at the beginning of the Term or at the end of what would have been the remainder of the Term shall be prorated.

(vi) Nothing herein contained shall limit or prejudice the right of Landlord, in any bankruptcy or insolvency proceeding, to prove for and obtain as liquidated damages by reason of such termination an amount equal to the maximum allowed by any bankruptcy or insolvency proceedings, or to prove for and obtain as liquidated damages by reason of such termination, an amount equal to the maximum allowed by any statute or rule of law, whether such amount shall be greater or less than the excess referred to above

(vii) Nothing in this Section 21 shall be deemed to affect the right of either party to indemnifications pursuant to this Lease.

(viii) If Landlord terminates this Lease upon the occurrence of a Default, Tenant will quit and surrender the Premises to Landlord or its agents, and Landlord may, without further notice, enter upon, re-enter and repossess the Premises by summary proceedings, ejectment or otherwise. The words "enter", "re-enter", and "re-entry" are not restricted to their technical legal meanings

(ix) If Tenant shall be in default in the observance or performance of any provision of this Lease, and an action shall be brought for the enforcement thereof in which it shall be determined that Tenant was in default, Tenant shall pay to Landlord all reasonable, out of pocket fees, costs and other expenses which may become payable as a result thereof or in connection therewith, including reasonable attorneys' fees and expenses.

(x) If default by Tenant shall occur in the keeping, observance or performance of any covenant, agreement, term, provision or condition herein contained, Landlord, without thereby waiving such default, may perform the same for the account and at the expense of Tenant (a) immediately or at any time thereafter and with only such notice, if any, as may be practicable under the circumstances in the case of an emergency or in case such default will result in a violation of any legal or insurance requirements, or in the imposition of any lien against all or any portion of the Premises or the Project not discharged, released or bonded over to Landlord's satisfaction by Tenant within the time period required pursuant to Section 15 of this Lease, and (b) in any other case if such default continues after any applicable notice and cure period provided in Section 20. All reasonable costs and expenses incurred by Landlord in connection with any such performance by it for the account of Tenant and also all reasonable costs and expenses, including attorneys' fees and disbursements incurred by Landlord in any action or proceeding (including any summary dispossess proceeding) brought by Landlord to enforce any obligation of Tenant under this Lease and/or right of Landlord in or to the Premises, shall be paid by Tenant to Landlord within 10 days after demand.

(xi) Independent of the exercise of any other remedy of Landlord hereunder or under applicable law, Landlord may conduct an environmental test of the Premises as generally described in Section 30(d).

(xii) In the event that Tenant is in breach or Default under this Lease, whether or not Landlord exercises its right to terminate or any other remedy, Tenant shall reimburse Landlord upon demand for any out of pocket costs and expenses that Landlord may incur in connection with any such breach or Default, as provided in this Section 21(c). Such costs shall include legal fees and costs incurred for the negotiation of a settlement, enforcement of rights or otherwise Tenant shall also indemnify Landlord against and hold Landlord harmless from all costs, expenses, demands and liability, including without limitation, legal fees and costs Landlord shall incur if Landlord shall become or be made a party to any claim or action instituted by Tenant against any third party, by any third party against Tenant or by or against any person holding any interest under or using the Premises by license of or agreement with Tenant.

(xiii) Except as otherwise provided in this Section 21, no right or remedy herein conferred upon or reserved to Landlord is intended to be exclusive of any other right or remedy, and every right and remedy shall be cumulative and in addition to any other legal or equitable right or remedy given hereunder, or now or hereafter existing. No waiver of any provision of this Lease shall be deemed to have been made unless expressly so made in writing by the party expressly waiving such provision. Landlord shall be entitled, to the extent permitted by law, to seek injunctive relief in case of the violation, or attempted or threatened violation, of any provision of this Lease, or to seek a decree compelling observance or performance of any provision of this Lease, or to seek any other legal or equitable remedy.

22. **Assignment and Subletting**.

(a) **General Prohibition**. Without Landlord's prior written consent subject to and on the conditions described in this Section 22 (including the terms of Section 22(b) below), Tenant shall not, directly or indirectly, voluntarily or by operation of law, assign this Lease or sublease the Premises or any part thereof or mortgage, pledge, or hypothecate its leasehold interest or grant any concession or license within the Premises, and any attempt to do any of the foregoing shall be void and of no effect If Tenant is a corporation, partnership or limited liability company, the shares or other ownership interests thereof which are not actively traded upon a stock exchange or in the over-the-counter market, a transfer or series of transfers whereby 50% or more of the issued and outstanding shares or other ownership interests of such corporation are, or voting control is, transferred (but excepting transfers upon deaths of individual owners) from a person or persons or entity or entities which were owners thereof at time of execution of this Lease to persons or entities who were not owners of shares or other ownership interests of the corporation, partnership or limited liability company at time of execution of this Lease, shall be deemed an assignment of this Lease requiring the consent of Landlord as provided in this Section 22.

(b) **Permitted Transfers**. If Tenant desires to assign, sublease, hypothecate or otherwise transfer this Lease or sublet the Premises, then at least 15 business days, but not more than 45 business days, before the date Tenant desires the assignment or sublease to be effective (the "**Assignment Date**"), Tenant shall give Landlord a notice (the "**Assignment Notice**") containing such information about the proposed assignee or sublessee, including the proposed use of the Premises and any Hazardous Materials proposed to be used, stored handled, treated, generated in or released or disposed of from the Premises, the Assignment Date, any relationship between Tenant and the proposed assignee or sublessee, and all material terms and conditions of the proposed assignment or sublease, including a copy of any proposed assignment or sublease in its final form, and such other information as Landlord may deem reasonably necessary or appropriate to its consideration whether to grant its consent. Landlord may, by giving written notice to Tenant within 15 business days after receipt of the Assignment Notice: (i) grant such consent, (ii) refuse such consent, in its reasonable discretion, or (iii) with respect to any assignment or any sublease that would result in more than 50% of the Premises being subleased for substantially the remainder of the Term, terminate this Lease in its entirety or terminate the Lease with respect to the space described in the Assignment Notice as of the Assignment Date (an "**Assignment Termination**") If Landlord delivers notice of its election to exercise an Assignment Termination, Tenant shall have the right to withdraw such Assignment Notice by written notice to Landlord of such election within 5 business days after Landlord's notice electing to exercise the Assignment Termination. If Tenant withdraws such Assignment Notice, this Lease shall continue in full force and effect. If Tenant does not withdraw such Assignment Notice, this Lease, and the term and estate herein granted, shall terminate as of the Assignment Date with respect to the space described in such Assignment Notice. No failure of Landlord to exercise any such option to terminate this Lease, or to deliver a timely notice in response to the Assignment Notice, shall be deemed to be Landlord's consent to the proposed assignment, sublease or other transfer. It shall be reasonable for Landlord to withhold its consent, among other reasons, in any of the following instances: (A) in Landlord's reasonable judgment, the character, reputation, or business of the proposed assignee or subtenant is inconsistent with the desired tenant-mix or the quality of other tenancies in the Project or is inconsistent with the type and quality of the nature of the Building, (B) the proposed assignee or sublessee is engaged in areas of scientific research or other business concerns that are controversial, in Landlord's reasonable judgment, or its proposed use of the Premises will violate any applicable Legal Requirement, (C) the proposed assignee or sublessee is at that time negotiating with Landlord or an affiliate thereof for the lease of other space in the Project, (D) in Landlord's reasonable judgment, in connection with an assignment of the Lease, the proposed assignee lacks the creditworthiness to support the financial obligations it would incur under the proposed assignment, (E) the proposed assignee or sublessee is a governmental agency, (F) in Landlord's reasonable judgment, the use of the Premises by the proposed assignee or sublessee would entail any alterations that would materially lessen the value of the leasehold improvements in the Premises, or would require materially increased services by Landlord, (G) Landlord has experienced previous defaults by or is in litigation with the proposed assignee or sublessee or (H) the assignment or sublease is prohibited by Landlord's lender. In any event, Landlord shall further have the right to review and approve or disapprove the proposed form of sublease prior to the effective date of any such subletting. Tenant shall pay to Landlord a fee equal to Three Thousand Dollars ($3,000) in connection with its consideration of any Assignment Notice and/or its preparation or review of any consent documents. Notwithstanding the foregoing, Landlord's consent to an assignment of this Lease or a subletting of any portion of the Premises to any entity controlling, controlled by or under common control with Tenant (a "**Control Permitted Assignment**") shall not be required, provided that Landlord shall have the right to approve the form of any such sublease or assignment In addition, Tenant shall have the right to assign this Lease, upon 30 days prior written notice to Landlord but without obtaining Landlord's prior written consent, to a corporation or other entity which is a successor-in-interest to Tenant, by way of merger, consolidation or corporate reorganization, or by the purchase of all or substantially all of the assets or the ownership interests of Tenant provided that (i) such merger or consolidation, or such acquisition or assumption, as the case may be, is for a good business purpose and not principally for the purpose of transferring the Lease, and (ii) the net worth (as determined in accordance with generally accepted accounting principles ("GAAP")) of the assignee is not less than the greater of the net worth (as determined in accordance with GAAP) of Tenant as of (A) the Commencement Date, or (B) as of the date of Tenant's most current quarterly or annual financial statements, and (iii) such assignee shall agree in writing to assume all of the terms, covenants and conditions of this Lease (a "**Corporate Permitted Assignment**"). Control Permitted Assignments and Corporate Permitted Assignments are hereinafter referred to as "**Permitted Assignments**."

(c) **Additional Conditions** As a condition to any such assignment or subletting, whether or not Landlord's consent is required, Landlord may require.

(i) that any assignee or subtenant agree, in writing at the time of such assignment or subletting, that if Landlord gives such party notice that Tenant is in default under this Lease, such party shall thereafter make all payments otherwise due Tenant directly to Landlord, which payments will be received by Landlord without any liability except to credit such payment against those due under the Lease, and any such third party shall agree to attorn to Landlord or its successors and assigns should this Lease be terminated for any reason; provided, however, in no event shall Landlord or its successors or assigns be obligated to accept such attornment; and

(ii) A list of Hazardous Materials, certified by the proposed assignee or sublessee to be true and correct, which the proposed assignee or sublessee intends to use, store, handle, treat, generate in or release or dispose of from the Premises, together with copies of all documents relating to such use, storage, handling, treatment, generation, release or disposal of Hazardous Materials by the proposed assignee or subtenant in the Premises or on the Project, prior to the proposed assignment or subletting, including, without limitation permits; approvals, reports and correspondence; storage and management plans; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion); and all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks Neither Tenant nor any such proposed assignee or subtenant is required, however, to provide Landlord with any portion(s) of the such documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities.

(d) **No Release of Tenant**, **Sharing of Excess Rents**. Notwithstanding any assignment or subletting, Tenant and any guarantor or surety of Tenant's obligations under this Lease shall at all times remain fully and primarily responsible and liable for the payment of Rent and for compliance with all of Tenant's other obligations under this Lease. If the Rent due and payable by a sublessee or assignee (or a combination of the rental payable under such sublease or assignment plus any bonus or other consideration therefor or incident thereto in any form) exceeds the sum of the rental payable under this Lease (excluding however, any Rent payable under this Section) and actual and reasonable brokerage fees, legal costs and any design or construction fees directly related to and required pursuant to the terms of any such sublease (such excess, the "**Excess Rent**"), then Tenant shall be bound and obligated to pay Landlord as Additional Rent hereunder 50% of such Excess Rent within 10 days following receipt thereof by Tenant. If Tenant shall sublet the Premises or any part thereof, Tenant hereby immediately and irrevocably assigns to Landlord, as security for Tenant's obligations under this Lease, all rent from any such subletting, and Landlord, or a receiver for Tenant appointed on Landlord's application, may collect such rent and apply it toward Tenant's obligations under this Lease; except that, until the occurrence of a Default, Tenant shall have the right to collect such rent.

(e) **No Waiver** The consent by Landlord to an assignment or subletting shall not relieve Tenant or any assignees of this Lease or any sublessees of the Premises from obtaining the consent of Landlord to any further assignment or subletting nor shall it release Tenant or any assignee or sublessee of Tenant from full and primary liability under the Lease. The acceptance of Rent hereunder, or the acceptance of performance of any other term, covenant, or condition thereof, from any other person or entity shall not be deemed to be a waiver of any of the provisions of this Lease or a consent to any subletting, assignment or other transfer of the Premises.

(f) **Prior Conduct of Proposed Transferee**. Notwithstanding any other provision of this Section 22, if (i) the proposed assignee or sublessee of Tenant has been required by any prior landlord, lender or Governmental Authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question, (n) the proposed assignee or sublessee is subject to an enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority), or (iii) because of the existence of a pre-existing environmental condition in the vicinity of or underlying the Project, the risk that Landlord would be targeted as a responsible party in connection with the remediation of such pre-existing environmental condition would be materially increased or exacerbated by the proposed use of Hazardous Materials by such proposed assignee or sublessee, Landlord shall have the absolute right to refuse to consent to any assignment or subletting to any such party.

23. **Estoppel Certificate**. Tenant shall, within 10 business days of written notice from Landlord, execute, acknowledge and deliver a statement in writing in any form reasonably requested by a proposed lender or purchaser, (i) certifying that this Lease is unmodified and in full force and effect (or, if modified, stating the nature of such modification and certifying that this Lease as so modified is in full force and effect) and the dates to which the rental and other charges are paid in advance, if any, (li) acknowledging that there are not any uncured defaults on the part of Landlord hereunder, or specifying such defaults if any are claimed, and (iii) setting forth such further information with respect to the status of this Lease or the Premises as may be requested thereon Any such statement may be relied upon by any prospective purchaser or encumbrancer of all or any portion of the real property of which the Premises are a part. Tenant's failure to deliver such statement within such time shall, at the option of Landlord, constitute a Default under this Lease and, in any event, shall be conclusive upon Tenant that the Lease is in full force and effect and without modification except as may be represented by Landlord in any certificate prepared by Landlord and delivered to Tenant for execution.

24. **Quiet Enjoyment**. So long as Tenant shall perform all of the covenants and agreements herein required to be performed by Tenant, Tenant shall, subject to the terms of this Lease, at all times during the Term, have peaceful and quiet enjoyment of the Premises against any person claiming by, through or under Landlord.

25. **Prorations**. All prorations required or permitted to be made hereunder shall be made on the basis of a 360 day year and 30 day months.

26. **Rules and Regulations**. Tenant shall, at all times during the Term and any extension thereof, comply with all reasonable rules and regulations at any time or from time to time established by Landlord covering use of the Premises and the Project or portion thereof of which the Premises are a part. The current rules and regulations are attached hereto as **Exhibit E**. If there is any conflict between said rules and regulations and other provisions of this Lease, the terms and provisions of this Lease shall control Landlord shall not have any liability or obligation for the breach of any rules or regulations by other tenants in the Project and shall not enforce such rules and regulations in a discriminatory manner.

27. **Subordination**. This Lease and Tenant's interest and rights hereunder are hereby made and shall be subject and subordinate at all times to the lien of any Mortgage now existing or hereafter created on or against the Project, Property, Building or Premises, and all amendments, restatements, renewals, modifications, consolidations, refinancing, assignments and extensions thereof, without the necessity of any further instrument or act on the part of Tenant; provided, however that so long as there is no Default hereunder, Tenant's right to possession of the Premises shall not be disturbed by the Holder of any such Mortgage. Tenant agrees, at the election of the Holder of any such Mortgage, to attorn to any such Holder. Tenant agrees upon demand to execute, acknowledge and deliver such reasonable instruments, confirming such subordination, and such instruments of attornment as shall be requested by any such Holder, provided any such instruments contain appropriate non-disturbance provisions assuring Tenant's quiet enjoyment of the Premises as set forth in Section 24 hereof. Notwithstanding the foregoing, any such Holder may at any time subordinate its Mortgage to this Lease, without Tenant's consent, by notice in writing to Tenant, and thereupon this Lease shall be deemed prior to such Mortgage without regard to their respective dates of execution, delivery or recording and in that event such Holder shall have the same rights with respect to this Lease as though this Lease had been executed prior to the execution, delivery and recording of such Mortgage and had been assigned to such Holder. The term "**Mortgage**" whenever used in this Lease shall be deemed to include deeds of trust, security assignments, ground leases or other superior leases and any other encumbrances, and any reference to the "**Holder**" of a Mortgage shall be deemed to include the beneficiary under a deed of trust.

28. **Surrender**. Upon the expiration of the Term or earlier termination of Tenant's right of possession, Tenant shall surrender the Premises to Landlord in the same condition as received, subject to any Alterations or Installations permitted by Landlord to remain in the Premises, free of Hazardous Materials brought upon, kept, used, stored, handled, treated, generated in, or released or disposed of from, the Premises by any person other than a Landlord Party (collectively, "**Tenant HazMat Operations**") and released of all Hazardous Materials Clearances, broom clean, ordinary wear and tear and casualty loss and condemnation covered by Sections 18 and 19 excepted. At least 3 months prior to the surrender of the Premises or such earlier date as Tenant may elect to cease operations at the Premises, Tenant shall deliver to Landlord a narrative description of the actions proposed (or required by any Governmental Authority) to be taken by Tenant in order to surrender the Premises (including any Installations permitted by Landlord to remain in the Premises) at the expiration or earlier termination of the Term, free from any residual impact from the Tenant HazMat Operations and otherwise released for unrestricted use and occupancy (the "**Decommissioning and HazMat Closure Plan**") Such Decommissioning and HazMat Closure Plan shall be accompanied by a current listing of (i) all Hazardous Materials licenses and permits held by or on behalf of any Tenant Party with respect to the Premises, and (ii) all Hazardous Materials used, stored, handled, treated, generated, released or disposed of from the Premises, and shall be subject to the review and approval of Landlord's environmental consultant. In connection with the review and approval of the Decommissioning and HazMat Closure Plan, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such additional non-proprietary information concerning Tenant HazMat Operations as Landlord shall request. On or before such surrender, Tenant shall deliver to Landlord evidence that the approved Decommissioning and HazMat Closure Plan shall have been satisfactorily completed and Landlord shall have the right, subject to reimbursement at Tenant's expense as set forth below, to cause Landlord's environmental consultant to inspect the Premises and perform such additional procedures as may be deemed reasonably necessary to confirm that the Premises are, as of the effective date of such surrender or early termination of the Lease, free from any residual impact from Tenant HazMat Operations. Tenant shall reimburse Landlord, as Additional Rent, for the actual out-of-pocket expense incurred by Landlord for Landlord's environmental consultant to review and approve the Decommissioning and HazMat Closure Plan and to visit the Premises and verify satisfactory completion of the same, which cost shall not exceed $5,000 Landlord shall have the unrestricted right to deliver such Decommissioning and HazMat Closure Plan and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties.

If Tenant shall fail to prepare or submit a Decommissioning and HazMat Closure Plan approved by Landlord, or if Tenant shall fail to complete the approved Decommissioning and HazMat Closure Plan, or if such Decommissioning and HazMat Closure Plan, whether or not approved by Landlord, shall fail to adequately address any residual effect of Tenant HazMat Operations in, on or about the Premises, Landlord shall have the right to take such actions as Landlord may deem reasonable or appropriate to assure that the Premises and the Project are surrendered free from any residual impact from Tenant HazMat Operations, the cost of which actions shall be reimbursed by Tenant as Additional Rent, without regard to the limitation set forth in the first paragraph of this Section 28.

Tenant shall immediately return to Landlord all keys and/or access cards to parking, the Project, restrooms or all or any portion of the Premises furnished to or otherwise procured by Tenant. If any such access card or key is lost, Tenant shall pay to Landlord, at Landlord's election, either the cost of replacing such lost access card or key or the cost of reprogramming the access security system in which such access card was used or changing the lock or locks opened by such lost key. Any Tenant's Property, Alterations and property not so removed by Tenant as permitted or required herein shall be deemed abandoned and may be stored, removed, and disposed of by Landlord at Tenant's expense, and Tenant waives all claims against Landlord for any damages resulting from Landlord's retention and/or disposition of such property. All obligations of Tenant hereunder not fully performed as of the termination of the Term, including the obligations of Tenant under Section 30 hereof, shall survive the expiration or earlier termination of the Term, including, without limitation, indemnity obligations, payment obligations with respect to Rent and obligations concerning the condition and repair of the Premises.

29. **Waiver of Jury Trial**. TENANT AND LANDLORD WAIVE ANY RIGHT TO TRIAL BY JURY OR TO HAVE A JURY PARTICIPATE IN RESOLVING ANY DISPUTE, WHETHER SOUNDING IN CONTRACT, TORT, OR OTHERWISE, BETWEEN LANDLORD AND TENANT ARISING OUT OF THIS LEASE OR ANY OTHER INSTRUMENT, DOCUMENT, OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HEREWITH OR THE TRANSACTIONS RELATED HERETO.

30. **Environmental Requirements**.

(a) **Prohibition/Compliance/Indemnity**. Tenant shall not cause or permit any Hazardous Materials (as hereinafter defined) to be brought upon, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises, Building, Property or Project in violation of applicable Environmental Requirements (as hereinafter defined) by Tenant or any Tenant Party. If Tenant breaches the obligation stated in the preceding sentence, or if the presence of Hazardous Materials in the Premises during any period that Tenant occupies all or any portion of the Premises or any holding over results in contamination of the Premises, Building, Property or Project or any adjacent property or if contamination of the Premises, Building, Property or Project or any adjacent property by Hazardous Materials brought into, kept, used, stored, handled, treated, generated in or about, or released or disposed of from, the Premises by anyone other than Landlord and Landlord's employees, agents and contractors otherwise occurs during any period that Tenant occupies all or any portion of the Premises or any holding over, Tenant hereby indemnifies and shall defend and hold Landlord, its officers, directors, employees, agents and contractors harmless from any and all actions (including, without limitation, remedial or enforcement actions of any kind, administrative or judicial proceedings, and orders or judgments arising out of or resulting therefrom), costs, claims, damages (including, without limitation, punitive damages and damages based upon diminution in value of the Premises or the Project, or the loss of, or restriction on, use of the Premises or any portion of the Project), expenses (including, without limitation, attorneys', consultants' and experts' fees, court costs and amounts paid in settlement of any claims or actions), fines, forfeitures or other civil, administrative or criminal penalties, injunctive or other relief (whether or not based upon personal injury, property damage, or contamination of, or adverse effects upon, the environment, water tables or natural resources), liabilities or losses (collectively, "**Environmental Claims**") which arise during or after the Term as a result of such contamination or breach by Tenant of its obligations under this Section 30. This indemnification of Landlord by Tenant includes, without limitation, costs incurred in connection with any investigation of site conditions or any cleanup, treatment, remedial, removal, or restoration work required by any federal, state or local Governmental Authority because of Hazardous Materials present in the air, soil or ground water above, on, or under the Premises. Without limiting the foregoing, if the presence of any Hazardous Materials on the Premises, Building, Property, Project or any adjacent property caused or permitted by Tenant or any Tenant Party results in any contamination of the Premises, Building, Property, Project or any adjacent property, Tenant shall promptly take all actions at its sole expense and in accordance with applicable Environmental Requirements as are necessary to return the Premises, Building, Property, Project or any adjacent property to the condition existing prior to the time of such contamination, provided that Landlord's approval of such action shall first be obtained, which approval shall not unreasonably be withheld so long as such actions would not potentially have any material adverse long-term or short-term effect on the Premises, Building, Property or the Project Notwithstanding anything to the contrary contained in Section 28 or this Section 30, Tenant shall not be responsible for, and the indemnification and hold harmless obligation set forth in this paragraph shall not apply to (i) contamination in the Premises which Tenant can prove to Landlord's reasonable satisfaction existed in the Premises immediately prior to the Commencement Date, or (ii) the presence of any Hazardous Materials in the Premises which Tenant can prove to Landlord's reasonable satisfaction migrated from outside of the Premises into the Premises, unless in either case, the presence of such Hazardous Materials (x) is the result of a breach by Tenant of any of its obligations under this Lease, or (y) was caused, contributed to or exacerbated by Tenant or any Tenant Party.

(b) **Business**. Landlord acknowledges that it is not the intent of this Section 30 to prohibit Tenant from using the Premises for the Permitted Use. Tenant may operate its business according to prudent industry practices so long as the use or presence of Hazardous Materials is strictly and properly monitored according to all then applicable Environmental Requirements. As a material inducement to Landlord to allow Tenant to use Hazardous Materials in connection with its business, Tenant agrees to deliver to Landlord prior to the Commencement Date a list identifying each type of Hazardous Materials to be brought upon, kept, used, stored, handled, treated, generated on, or released or disposed of from, the Premises and setting forth any and all governmental approvals or permits required in connection with the presence, use, storage, handling, treatment, generation, release or disposal of such Hazardous Materials on or from the Premises ("**Hazardous Materials List**"). Upon Landlord's request, any time that Tenant is required to deliver a Hazardous Materials List to any Governmental Authority (e g., the fire department) in connection with Tenant's use or occupancy of the Premises, or at any other time Tenant desires to deliver an updated Hazardous Materials List to Landlord, Tenant shall deliver to Landlord a copy of such Hazardous Materials List. Tenant shall deliver to Landlord true and correct copies of the following documents (the "**Haz Mat Documents**") relating to the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials prior to the Commencement Date, or if unavailable at that time, concurrent with the receipt from or submission to a Governmental Authority, permits; approvals; reports and correspondence; storage and management plans, notice of violations of any Legal Requirements; plans relating to the installation of any storage tanks to be installed in or under the Project (provided, said installation of tanks shall only be permitted after Landlord has given Tenant its written consent to do so, which consent may be withheld in Landlord's sole and absolute discretion), all closure plans or any other documents required by any and all federal, state and local Governmental Authorities for any storage tanks installed in, on or under the Project for the closure of any such tanks; and a Decommissioning and HazMat Closure Plan (to the extent surrender in accordance with Section 28 cannot be accomplished in 3 months) Tenant is not required, however, to provide Landlord with any portion(s) of the Haz Mat Documents containing information of a proprietary nature which, in and of themselves, do not contain a reference to any Hazardous Materials or hazardous activities. It is not the intent of this Section to provide Landlord with information which could be detrimental to Tenant's business should such information become possessed by Tenant's competitors.

(c) **Tenant Representation and Warranty** Tenant hereby represents and warrants to Landlord that (i) neither Tenant nor any of its legal predecessors has been required by any prior landlord, lender or Governmental Authority at any time to take remedial action in connection with Hazardous Materials contaminating a property which contamination was permitted by Tenant of such predecessor or resulted from Tenant's or such predecessor's action or use of the property in question, and (ii) Tenant is not subject to any enforcement order issued by any Governmental Authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials (including, without limitation, any order related to the failure to make a required reporting to any Governmental Authority). If Landlord determines that this representation and warranty was not true as of the date of this lease, Landlord shall have the right to terminate this Lease in Landlord's sole and absolute discretion

(d) **Testing**. Landlord shall have the right to conduct annual tests of the Premises to determine whether any contamination of the Premises, Building, Property or Project has occurred as a result of Tenant's use. Tenant shall be required to pay the cost of such annual test of the Premises if there is a violation of this Section 30 or if contamination for which Tenant is responsible under this Section 30 is identified; provided, however, that if Tenant conducts its own tests of the Premises using third party contractors and test procedures acceptable to Landlord which tests are certified to Landlord, Landlord shall accept such tests in lieu of the annual tests to be paid for by Tenant. In addition, at any time, and from time to time, prior to the expiration or earlier termination of the Term, Landlord shall have the right to conduct appropriate tests of the Premises, Building, Property and Project to determine if contamination has occurred as a result of Tenant's use of the Premises In connection with such testing, upon the request of Landlord, Tenant shall deliver to Landlord or its consultant such non-proprietary information concerning the use of Hazardous Materials in or about the Premises by Tenant or any Tenant Party. If contamination has occurred for which Tenant is liable under this Section 30, Tenant shall pay all costs to conduct such tests. If no such contamination is found, Landlord shall pay the costs of such tests (which shall not constitute an Operating Expense). Landlord shall provide Tenant with a copy of all third party, non-confidential reports and tests of the Premises made by or on behalf of Landlord during the Term without representation or warranty and subject to a confidentiality agreement. Tenant shall, at its sole cost and expense, promptly and satisfactorily remediate any environmental conditions identified by such testing in accordance with all Environmental Requirements. Landlord's receipt of or satisfaction with any environmental assessment in no way waives any rights which Landlord may have against Tenant.

(e) **Control Areas**. Tenant shall be allowed to utilize up to its pro rata share of the Hazardous Materials inventory within any control area or zone (located within the Premises), as designated by the applicable building code, for chemical use or storage. As used in the preceding sentence, Tenant's pro rata share of any control areas or zones located within the Premises shall be determined based on the rentable square footage that Tenant leases within the applicable control area or zone. For purposes of example only, if a control area or zone contains 10,000 rentable square feet and 2,000 rentable square feet of a tenant's premises are located within such control area or zone (while such premises as a whole contains 5,000 rentable square feet), the applicable tenant's pro rata share of such control area would be 20%.

(f) **Underground Tanks**. Tenant shall have no right to use or install any underground or other storage tanks at the Project.

(g) **Tenant's Obligations**. Tenant's obligations under this Section 30 shall survive the expiration or earlier termination of the Lease. During any period of time after the expiration or earlier termination of this Lease required by Tenant or Landlord to complete the removal from the Premises of any Hazardous Materials (including, without limitation, the release and termination of any licenses or permits restricting the use of the Premises and the completion of the approved Decommissioning and HazMat Closure Plan), Tenant shall continue to pay the full Rent in accordance with this Lease for any portion of the Premises not relet by Landlord in Landlord's sole discretion, which Rent shall be prorated daily.

(h) **Definitions**. As used herein, the term "**Environmental Requirements**" means all applicable present and future statutes, regulations, ordinances, rules, codes, judgments, orders or other similar enactments of any Governmental Authority regulating or relating to health, safety, or environmental conditions on, under, or about the Premises, Building, Property or Project, or the environment, including without limitation, the following: the Comprehensive Environmental Response, Compensation and Liability Act; the Resource Conservation and Recovery Act; and all state and local counterparts thereto, and any regulations or policies promulgated or issued thereunder. As used herein, the term "**Hazardous Materials**" means and includes any substance, material, waste, pollutant, or contaminant listed or defined as hazardous or toxic, or regulated by reason of its impact or potential impact on humans, animals and/or the environment under any Environmental Requirements, asbestos and petroleum, including crude oil or any fraction thereof, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). As defined in Environmental Requirements, Tenant is and shall be deemed to be the "**operator**" of Tenant's "**facility**" and the "**owner**" of all Hazardous Materials brought on the Premises by Tenant or any Tenant Party, and the wastes, by-products, or residues generated, resulting, or produced therefrom.

(i) **Asbestos**.

(i) **Notification of Asbestos**. Landlord hereby notifies Tenant of the presence of asbestos-containing materials ("**ACMs**") and/or presumed asbestos-containing materials ("**PACMs**") within or about the Premises in the locations identified in **Exhibit G**.

(ii) **Tenant Acknowledgement**. Tenant hereby acknowledges receipt of the notification in paragraph (i) of this Section 30(i) and understand that the purpose of such notification is to make Tenant, and any agents, employees, and contractors of Tenant, aware of the presence of ACMs and/or PACMs within or about the Building in order to avoid or minimize any damage to or disturbance of such ACMs and/or PACMs.

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Tenant's Initials

(iii) **Acknowledgement from Contractors/Employees**. Tenant shall give Landlord at least 14 days' prior written notice before conducting, authorizing or permitting any of the activities listed below within or about the Premises, and before soliciting bids from any person to perform such services. Such notice shall identify or describe the proposed scope, location, date and time of such activities and the name, address and telephone number of each person who may be conducting such activities. Thereafter, Tenant shall grant Landlord reasonable access to the Premises to determine whether any ACMs or PACMs will be disturbed in connection with such activities. Tenant shall not solicit bids from any person for the performance of such activities without Landlord's prior written approval. Upon Landlord's request, Tenant shall deliver to Landlord a copy of a signed acknowledgement from any contractor, agent, or employee of Tenant acknowledging receipt of information describing the presence of ACMs and/or PACMs within or about the Premises in the locations identified in **Exhibit G** prior to the commencement of such activities. Nothing in this Section 30(i) shall be deemed to expand Tenant's rights under the Lease or otherwise to conduct, authorize or permit any such activities.

(A) Removal of thermal system insulation ("**TSI**") and surfacing ACMs and PACMs (i.e., sprayed-on or troweled-on material, e.g., textured ceiling paint or fireproofing material);

(B) Removal of ACMs or PACMs that are not TSI or surfacing ACMs or PACMs; or

(C) Repair and maintenance of operations that are likely to disturb ACMs or PACMs.

31. **Tenant's Remedies/Limitation of Liability**. Landlord shall not be in default hereunder unless Landlord fails to perform any of its obligations hereunder within 30 days after written notice from Tenant specifying such failure (unless such performance will, due to the nature of the obligation, require a period of time in excess of 30 days, then after such period of time as is reasonably necessary) Upon any default by Landlord, Tenant shall give notice by registered or certified mail to any Holder of a Mortgage covering the Premises and to any landlord of any lease of property in or on which the Premises are located and Tenant shall offer such Holder and/or landlord a reasonable opportunity to cure the default, including time to obtain possession of the Project, or portion thereof of which the Premises are a part, by power of sale or a judicial action if such should prove necessary to effect a cure; provided Landlord shall have furnished to Tenant in writing the names and addresses of all such persons who are to receive such notices. All obligations of Landlord hereunder shall be construed as covenants, not conditions; and, except as may be otherwise expressly provided in this Lease, Tenant may not terminate this Lease for breach of Landlord's obligations hereunder.

All obligations of Landlord under this Lease will be binding upon Landlord only during the period of its ownership of the Premises and not thereafter. The term "**Landlord**" in this Lease shall mean only the owner for the time being of the Premises. Upon the transfer by such owner of its interest in the Premises, such owner shall thereupon be released and discharged from all obligations of Landlord thereafter accruing, but such obligations shall be binding during the Term upon each new owner for the duration of such owner's ownership.

32. **Inspection and Access**. Landlord and its agent, representatives, and contractors may enter the Premises at any reasonable time to inspect the Premises and to make such repairs as may be required or permitted pursuant to this Lease and for any other business purpose. Landlord and Landlord's representatives may enter the Premises during business hours on not less than 48 hours advance written notice (except in the case of emergencies in which case no such notice shall be required and such entry may be at any time) for the purpose of effecting any such repairs, inspecting the Premises, showing the Premises to prospective purchasers and, during the last 18 months of the Term, to prospective tenants or for any other business purpose. Landlord may erect a suitable sign on the Premises, Building or Property stating the Premises or Building are available to let or that the Building, Property or Project is available for sale. Landlord may grant easements, make public dedications, designate Common Areas and create restrictions on or about the Premises, Building and Property, provided that no such easement, dedication, designation or restriction materially, adversely affects Tenant's use or occupancy of the Premises for the Permitted Use. At Landlord's request, Tenant shall execute such instruments as may be necessary for such easements, dedications or restrictions. Tenant shall at all times, except in the case of emergencies, have the right to escort Landlord or its agents, representatives, contractors or guests while the same are in the Premises, provided such escort does not materially and adversely affect Landlord's access rights hereunder.

33. **Security**. Tenant acknowledges and agrees that security devices and services, if any, while intended to deter crime may not in given instances prevent theft or other criminal acts and that Landlord is not providing any security services with respect to the Premises. Tenant agrees that Landlord shall not be liable to Tenant for, and Tenant waives any claim against Landlord with respect to, any loss by theft or any other damage suffered or incurred by Tenant in connection with any unauthorized entry into the Premises or any other breach of security with respect to the Premises. Tenant shall be solely responsible for the personal safety of Tenant's officers, employees, agents, contractors, guests and invitees while any such person is in, on or about the Premises, Building, Property and/or Project Tenant shall at Tenant's cost obtain insurance coverage to the extent Tenant desires protection against such criminal acts.

34. **Force Majeure**. Except for the payment of Rent, neither Landlord nor Tenant shall be held responsible or liable for delays in the performance of its obligations hereunder when caused by, related to, or arising out of acts of God, strikes, lockouts, or other labor disputes, embargoes, quarantines, weather, national, regional, or local disasters, calamities, or catastrophes, inability to obtain labor or materials (or reasonable substitutes therefor) at reasonable costs or failure of, or inability to obtain, utilities necessary for performance, governmental restrictions, orders, limitations, regulations, or controls, national emergencies, delay in issuance or revocation of permits, enemy or hostile governmental action, terrorism, insurrection, riots, civil disturbance or commotion, fire or other casualty, and other causes or events beyond their reasonable control ("**Force Majeure**").

35. **Brokers**. Landlord and Tenant each represents and warrants that it has not dealt with any broker, agent or other person (collectively, "**Broker**") in connection with this transaction and that no Broker brought about this transaction, other than Newmark Knight Frank and CBRE Landlord and Tenant each hereby agree to indemnify and hold the other harmless from and against any claims by any Broker, other than Newmark Knight Frank and CBRE, claiming a commission or other form of compensation by virtue of having dealt with Tenant or Landlord, as applicable, with regard to this leasing transaction.

36. **Limitation on Landlord's Liability**. NOTWITHSTANDING ANYTHING SET FORTH HEREIN OR IN ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT TO THE CONTRARY- (A) LANDLORD SHALL NOT BE LIABLE TO TENANT OR ANY OTHER PERSON FOR (AND TENANT AND EACH SUCH OTHER PERSON ASSUME ALL RISK OF) LOSS, DAMAGE OR INJURY, WHETHER ACTUAL OR CONSEQUENTIAL TO: TENANT'S PERSONAL PROPERTY OF EVERY KIND AND DESCRIPTION, INCLUDING, WITHOUT LIMITATION TRADE FIXTURES, EQUIPMENT, INVENTORY, SCIENTIFIC RESEARCH, SCIENTIFIC EXPERIMENTS, LABORATORY ANIMALS, PRODUCT, SPECIMENS, SAMPLES, AND/OR SCIENTIFIC, BUSINESS, ACCOUNTING AND OTHER RECORDS OF EVERY KIND AND DESCRIPTION KEPT AT THE PREMISES AND ANY AND ALL INCOME DERIVED OR DERIVABLE THEREFROM; (B) THERE SHALL BE NO PERSONAL RECOURSE TO LANDLORD FOR ANY ACT OR OCCURRENCE IN, ON OR ABOUT THE PREMISES OR ARISING IN ANY WAY UNDER THIS LEASE OR ANY OTHER AGREEMENT BETWEEN LANDLORD AND TENANT WITH RESPECT TO THE SUBJECT MATTER HEREOF AND ANY LIABILITY OF LANDLORD HEREUNDER SHALL BE STRICTLY LIMITED SOLELY TO LANDLORD'S INTEREST IN THE PROPERTY OR ANY PROCEEDS FROM SALE OR CONDEMNATION THEREOF AND ANY INSURANCE PROCEEDS PAYABLE IN RESPECT OF LANDLORD'S INTEREST IN THE PROPERTY OR IN CONNECTION WITH ANY SUCH LOSS, AND (C) IN NO EVENT SHALL ANY PERSONAL LIABILITY BE ASSERTED AGAINST LANDLORD IN CONNECTION WITH THIS LEASE NOR SHALL ANY RECOURSE BE HAD TO ANY OTHER PROPERTY OR ASSETS OF LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS. UNDER NO CIRCUMSTANCES SHALL LANDLORD OR ANY OF LANDLORD'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR CONTRACTORS BE LIABLE FOR INJURY TO TENANT'S BUSINESS OR FOR ANY LOSS OF INCOME OR PROFIT THEREFROM

37. **Severability**. If any clause or provision of this Lease is illegal, invalid or unenforceable under present or future laws, then and in that event, it is the intention of the parties hereto that the remainder of this Lease shall not be affected thereby. It is also the intention of the parties to this Lease that in lieu of each clause or provision of this Lease that is illegal, invalid or unenforceable, there be added, as a part of this Lease, a clause or provision as similar in effect to such illegal, invalid or unenforceable clause or provision as shall be legal, valid and enforceable.

38. **Signs; Exterior Appearance**. Tenant shall not, without the prior written consent of Landlord, which may be granted or withheld in Landlord's sole discretion: (i) attach any awnings, exterior lights, decorations, balloons, flags, pennants, banners, painting or other projection to any outside wall of the Building, (ii) use any curtains, blinds, shades or screens other than Landlord's standard window coverings, (iii) coat or otherwise sunscreen the interior or exterior of any windows, (iv) place any bottles, parcels, or other articles on the window sills, (v) place any equipment, furniture or other items of personal property on any exterior balcony, or (vi) paint, affix or exhibit on any part of the Premises, Building, Property or Project any signs, notices, window or door lettering, placards, decorations, or advertising media of any type which can be viewed from the exterior of the Premises. Signage on the floor on which the Premises is located and the directory tablet shall be inscribed, painted or affixed for Tenant by Landlord at the sole cost and expense of Landlord, and shall be of a size, color and type, and in a location, acceptable to Landlord. Nothing may be placed on the exterior of corridor walls or corridor doors other than Landlord's standard lettering. The directory tablet shall be provided exclusively for the display of the name and location of tenants.

39. **Right to Extend Term**. Tenant shall have the right to extend the Term of the Lease upon the following terms and conditions.

(a) **Extension Rights**. Tenant shall have 1 right (the "**Extension Right**") to extend the term of this Lease for 3 years (the "**Extension Term**") on the same terms and conditions as this Lease (other than with respect to Base Rent and the Work Letter) by giving Landlord written notice of its election to exercise each Extension Right at least 12 months and not more than 15 months prior to the expiration of the Base Term of the Lease.

Upon the commencement of the Extension Term, Base Rent shall be payable at the Market Rate (as defined below). Base Rent shall thereafter be adjusted on each annual anniversary of the commencement of such Extension Term by a percentage as determined by Landlord and agreed to by Tenant at the time the Market Rate is determined. As used herein, "**Market Rate**" shall mean the then market rental rate for space comparable to the Premises (including all Tenant Improvements, Alterations and other improvements) in a building comparable to the Building in the East Cambridge and Kendall Square market area of Cambridge, MA as determined by Landlord and agreed to by Tenant or determined by arbitration as provided below. Notwithstanding the foregoing, the Market Rate shall in no event be less than the Base Rent payable as of the date immediately preceding the commencement of such Extension Term increased by the Rent Adjustment Percentage multiplied by such Base Rent. In addition, Landlord may impose a market rent for the parking rights provided hereunder.

If, on or before the date which is 210 days prior to the expiration of the Base Term of this Lease, Tenant has not agreed with Landlord's determination of the Market Rate and the rent escalations during the Extension Term after negotiating in good faith, Tenant shall be deemed to have elected arbitration as described in Section 39(b). Tenant acknowledges and agrees that, if Tenant has elected to exercise the Extension Right by delivering notice to Landlord as required in this Section 39(a), Tenant shall have no right thereafter to rescind or elect not to extend the term of the Lease for the Extension Term.

(b) **Arbitration**.

(i) Within 10 days of Tenant's notice to Landlord of its election (or deemed election) to arbitrate Market Rate and escalations, each party shall deliver to the other a proposal containing the Market Rate and escalations that the submitting party believes to be correct ("**Extension Proposal**"). If either party fails to timely submit an Extension Proposal, the other party's submitted proposal shall determine the Base Rent and escalations for the Extension Term If both parties submit Extension Proposals, then Landlord and Tenant shall meet within 7 days after delivery of the last Extension Proposal and make a good faith attempt to mutually appoint a single Arbitrator (and defined below) to determine the Market Rate and escalations. If Landlord and Tenant are unable to agree upon a single Arbitrator, then each shall, by written notice delivered to the other within 10 days after the meeting, select an Arbitrator. If either party fails to timely give notice of its selection for an Arbitrator, the other party's submitted proposal shall determine the Base Rent for the Extension Term. The 2 Arbitrators so appointed shall, within 5 business days after their appointment, appoint a third Arbitrator. If the 2 Arbitrators so selected cannot agree on the selection of the third Arbitrator within the time above specified, then either party, on behalf of both parties, may request such appointment of such third Arbitrator by application to any state court of general jurisdiction in the jurisdiction in which the Premises are located, upon 10 days prior written notice to the other party of such intent.

(ii) The decision of the Arbitrator(s) shall be made within 30 days after the appointment of a single Arbitrator or the third Arbitrator, as applicable. The decision of the single Arbitrator shall be final and binding upon the parties. The average of the two closest Arbitrators in a three Arbitrator panel shall be final and binding upon the parties Each party shall pay the fees and expenses of the Arbitrator appointed by or on behalf of such party and the fees and expenses of the third Arbitrator shall be borne equally by both parties If the Market Rate and escalations are not determined by the first day of the Extension Term, then Tenant shall pay Landlord Base Rent in an amount equal to the Base Rent in effect immediately prior to the Extension Term and increased by the Rent Adjustment Percentage until such determination is made. After the determination of the Market Rate and escalations, the parties shall make any necessary adjustments to such payments made by Tenant. Landlord and Tenant shall then execute an amendment recognizing the Market Rate and escalations for the Extension Term.

(iii) An "**Arbitrator**" shall be any person appointed by or on behalf of either party or appointed pursuant to the provisions hereof and: (i) shall be (A) a member of the American Institute of Real Estate Appraisers with not less than 10 years of experience in the appraisal of improved office and high tech industrial real estate in the greater Cambridge, Massachusetts area, or (B) a licensed commercial real estate broker with not less than 15 years' experience representing landlords and/or tenants in the leasing of high tech or life sciences space in the greater Cambridge, Massachusetts area, (ii) devoting substantially all of their time to professional appraisal or brokerage work, as applicable, at the time of appointment and (in) be in all respects impartial and disinterested.

(c) **Rights Personal**. The Extension Right is personal to Tenant and is not assignable without Landlord's consent, which may be granted or withheld in Landlord's sole discretion separate and apart from any consent by Landlord to an assignment of Tenant's interest in the Lease, except that they may be assigned in connection with any Permitted Assignment of this Lease.

(d) **Exceptions** Notwithstanding anything set forth above to the contrary, the Extension Right shall, at Landlord's option, not be in effect and Tenant may not exercise the Extension Right.

(i) during any period of time that Tenant is in default under any provision of this Lease (beyond any applicable notice and cure periods); or

(ii) if Tenant has been in Default under any provision of this Lease 3 or more times, whether or not the Defaults are cured, during the 12 month period immediately prior to the date that Tenant intends to exercise the Extension Right, whether or not the Defaults are cured.

(e) **No Extensions** The period of time within which the Extension Right may be exercised shall not be extended or enlarged by reason of Tenant's inability to exercise the Extension Right.

(f) **Termination** The Extension Right shall, at Landlord's option, terminate and be of no further force or effect even after Tenant's due and timely exercise of the Extension Right, if, after such exercise, but prior to the commencement date of the Extension Term, (i) Tenant fails to timely cure any default by Tenant under this Lease; or (ii) Tenant has Defaulted 3 or more times during the period from the date of the exercise of the Extension Right to the date of the commencement of the Extension Term, whether or not such Defaults are cured.

40. **Prior Premises**. As of the date of this Lease, Tenant leases certain premises in the Building containing approximately 11,884 rentable square feet (the "**Prior Premises**") pursuant to that certain Lease dated February 5, 2016 (as the same has been or may in the future be amended, the "**2016 Lease**"). The Prior Premises is more particularly described on **Exhibit H** attached hereto. The 2016 Lease is scheduled to expire on August 31, 2021. Commencing on September 1, 2021 (the "**Prior Premises Commencement Date**"), the (i) the Premises shall be expanded to include the Prior Premises, and the Lease shall be amended to reflect the addition of the rentable square footage of the Prior Premises to the definitions of "**Premises**" and "**Rentable Area of Premises**," (ii) Tenant shall commence paying Base Rent with respect to the Prior Premises on a per rentable square foot basis at the same rate per rentable square foot that Tenant is paying with respect to the Premises, as adjusted pursuant to Section 4 hereof, (iii) "**Tenant's Share of Operating Expenses of Building"** shall be increased by 22 96%. Notwithstanding anything to the contrary contained herein, in no event shall the Work Letter apply to Prior Premises.

41. **Miscellaneous**

(a) **Notices**. All notices or other communications between the parties shall be in writing and shall be deemed duly given upon delivery or refusal to accept delivery by the addressee thereof if delivered in person, or upon actual receipt if delivered by reputable overnight guaranty courier, addressed and sent to the parties at their addresses set forth above. Landlord and Tenant may from time to time by written notice to the other designate another address for receipt of future notices.

(b) **Joint and Several Liability**. If and when included within the term "**Tenant**," as used in this instrument, there is more than one person or entity, each shall be jointly and severally liable for the obligations of Tenant.

(c) **Financial Information**. Tenant shall furnish Landlord with true and complete copies of (i) Tenant's most recent audited annual financial statements within 90 days of the end of each of Tenant's fiscal years during the Term, and (ii) Tenant's most recent unaudited quarterly financial statements within 45 days of the end of each of Tenant's first three fiscal quarters of each of Tenant's fiscal years during the Term.

(d) **Recordation**. Neither this Lease nor a memorandum of lease shall be filed by or on behalf of Tenant in any public record. Landlord may prepare and file, and upon request by Landlord Tenant will execute, a memorandum of lease.

(e) **Interpretation**. The normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Lease or any exhibits or amendments hereto Words of any gender used in this Lease shall be held and construed to include any other gender, and words in the singular number shall be held to include the plural, unless the context otherwise requires. The captions inserted in this Lease are for convenience only and in no way define, limit or otherwise describe the scope or intent of this Lease, or any provision hereof, or in any way affect the interpretation of this Lease.

(f) **Not Binding Until Executed**. The submission by Landlord to Tenant of this Lease shall have no binding force or effect, shall not constitute an option for the leasing of the Premises, nor confer any right or impose any obligations upon either party until execution of this Lease by both parties.

(g) **Entire Agreement**; **Amendment** This Lease constitutes the entire agreement between Landlord and Tenant pertaining to the lease of the Premises and supersedes all other agreements, whether oral or written, pertaining to the lease of the Premises, and no other agreements with respect thereto shall be effective. Any amendments or modifications of this Lease shall be in writing and signed by both Landlord and Tenant, and any other attempted amendment or modification of this Lease shall be void.

(h) **Limitations on Interest**. It is expressly the intent of Landlord and Tenant at all times to comply with applicable law governing the maximum rate or amount of any interest payable on or in connection with this Lease. If applicable law is ever judicially interpreted so as to render usurious any interest called for under this Lease, or contracted for, charged, taken, reserved, or received with respect to this Lease, then it is Landlord's and Tenant's express intent that all excess amounts theretofore collected by Landlord be credited on the applicable obligation (or, if the obligation has been or would thereby be paid in full, refunded to Tenant), and the provisions of this Lease immediately shall be deemed reformed and the amounts thereafter collectible hereunder reduced, without the necessity of the execution of any new document, so as to comply with the applicable law, but so as to permit the recovery of the fullest amount otherwise called for hereunder.

(i) **Choice of Law**. Construction and interpretation of this Lease shall be governed by the internal laws of the Commonwealth of Massachusetts, excluding any principles of conflicts of laws.

(j) **Time**. Time is of the essence as to the performance of Tenant's obligations under this Lease.

(k) **OFAC**. Tenant and all beneficial owners of Tenant are currently (a) in compliance with and shall at all times during the Term of this Lease remain in compliance with the regulations of the Office of Foreign Assets Control ("**OFAC**") of the U.S Department of Treasury and any statute, executive order, or regulation relating thereto (collectively, the "**OFAC Rules**"), (b) not listed on, and shall not during the term of this Lease be listed on, the Specially Designated Nationals and Blocked Persons List, Foreign Sanctions Evaders List, or the Sectoral Sanctions Identification List, which are all maintained by OFAC and/or on any other similar list maintained by OFAC or other governmental authority pursuant to any authorizing statute, executive order, or regulation, and (c) not a person or entity with whom a U.S. person is prohibited from conducting business under the OFAC Rules.

(l) **Incorporation by Reference**. All exhibits and addenda attached hereto are hereby incorporated into this Lease and made a part hereof If there is any conflict between such exhibits or addenda and the terms of this Lease, such exhibits or addenda shall control.

(m) **No Accord and Satisfaction**. No payment by Tenant or receipt by Landlord of a lesser amount than the monthly installment of Base Rent or any Additional Rent will be other than on account of the earliest stipulated Base Rent and Additional Rent, nor will any endorsement or statement on any check or letter accompanying a check for payment of any Base Rent or Additional Rent be an accord and satisfaction. Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or to pursue any other remedy provided in this Lease

(n) **Hazardous Activities**. Notwithstanding any other provision of this Lease, Landlord, for itself and its employees, agents and contractors, reserves the right to refuse to perform any repairs or services in any portion of the Premises which, pursuant to Tenant's routine safety guidelines, practices or custom or prudent industry practices, require any form of protective clothing or equipment other than safety glasses In any such case, Tenant shall contract with parties who are acceptable to Landlord, in Landlord's reasonable discretion, for all such repairs and services, and Landlord shall, to the extent required, equitably adjust Tenant's Share of Operating Expenses in respect of such repairs or services to reflect that Landlord is not providing such repairs or services to Tenant.

(o) **Counterparts**. This Lease may be executed in 2 or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature process complying with the U S federal ESIGN Act of 2000) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes Electronic signatures shall be deemed original signatures for purposes of this Lease and all matters related thereto, with such electronic signatures having the same legal effect as original signatures.

[**Signatures on next page**]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease as of the day and year first above written.

TENANT:

CAMP4 THERAPEUTICS CORPORATION,
a Delaware-corporation

By: /s/ Josh Mandel-Brehm
Print Name: Josh Mandel-Brehm
Title: CEO & President

LANDLORD:

ARE-MA REGION NO. 59, LLC,
a Delaware limited liability company

By: ALEXANDRIA REAL ESTATE EQUITIES, L.P., a Delaware limited partnership, managing member

By: ARE-QRS CORP., a Maryland corporation general partner

By: /s/ Jackie Clem
Print Name: Jackie Clem
Title: Senior Vice President RE Legal Affairs

EXHIBIT A TO LEASE

DESCRIPTION OF PREMISES

[***]

EXHIBIT B TO LEASE

DESCRIPTION OF PROPERTY

[***]

EXHIBIT C TO LEASE

WORK LETTER

[***]

EXHIBIT D TO LEASE

ACKNOWLEDGMENT OF COMMENCEMENT DATE

[***]

EXHIBIT E TO LEASE

RULES AND REGULATIONS

[***]

EXHIBIT F TO LEASE

TENANT'S PERSONAL PROPERTY

[***]

EXHIBIT G TO LEASE

NOTIFICATION OF THE PRESENCE OF ASBESTOS CONTAINING MATERIALS

[***]

Exhibit 10.15

LEASE

4888 PEARL EAST CIRCLE

Boulder, CO

BCSP PEARL EAST PROPERTY LLC,
a Delaware limited liability company

as Landlord,

and

CAMP4 THERAPEUTICS CORPORATION,
a Delaware corporation

as Tenant.

TABLE OF CONTENTS

EXHIBITS

4888 PEARL EAST CIRCLE

Boulder, CO

LEASE

This Lease (the "**Lease**"), dated as of the Execution Date set forth in Section 1 of the Summary of Basic Lease Information (the "**Summary**"), below, is made by and between BCSP PEARL EAST PROPERTY LLC, a Delaware limited liability company ("**Landlord**"), and CAMP4 THERAPEUTICS CORPORATION, a Delaware corporation ("**Tenant**").

SUMMARY OF BASIC LEASE INFORMATION

TERMS OF LEASE	DESCRIPTION
1. Execution Date:	January 3rd, 2023
2. Premises (Article 1):	
2.1 Building:	That certain 3-story building located at 4888 Pearl East Circle, Boulder, Colorado 80301 containing approximately 65,694 rentable square feet of space ("**RSF**").
2.2 Premises:	Approximately 5,304 RSF of space located on the first (1st) floor of the Building and commonly known as Suite 100-B, as further set forth in Exhibit A attached to this Lease.
2.3 Project:	The office/laboratory project currently known as "Pearl East." The term "**Project**," as used in this Lease, shall mean (i) the Building, (ii) the other buildings located adjacent to the Building of 4780, 4845, 4875, 4900, 4909, 4940, 4949, 4990 and 4999 Pearl East Circle, Boulder, Colorado (the "**Other Building(s)**") and (iii) the land (which is improved with landscaping, parking facilities and other improvements) upon which the Building and the Other Building(s) are located.
3. Lease Term (Article 2):	
3.1 Length of Initial Term:	Five (5) years and one (1) month.
3.2 Lease Commencement Date:	As defined in Section 1.1.1.2 of this Lease.
3.3 Rent Commencement Date:	Subject to acceleration on a day-for-day basis for each day of Tenant Delay, the date which is one (1) month after the Lease Commencement Date.

3.4 Lease Expiration Date: If the Rent Commencement Date shall be the first day of a calendar month, then the day immediately preceding the fifth (5th) anniversary of the Rent Commencement Date; or, if the Rent Commencement Date shall be other than the first day of a calendar month, then the last day of the month in which the fifth (5th) anniversary of the Rent Commencement Date occurs.

4. Base Rent (Article 3):

Period of Time*	Annual Base Rent**	Monthly Installment of Base Rent	Approximate Annual Base Rent per Rentable Square Foot
Rent Year 1	$ 317,047.92	$ 26,420.66	$ 59.78
Rent Year 2	$ 325,401.72	$ 27,116.81	$ 61.35
Rent Year 3	$ 334,006.13	$ 27,833.84	$ 62.97
Rent Year 4	$ 342,868.68	$ 28,572.39	$ 64.64
Rent Year 5	$ 351,997.10	$ 29,333.09	$ 66.36

* For the purposes of this Lease, the first "**Rent Year**" shall be defined as the period commencing as of the Rent Commencement Date and ending on the last day of the month in which the first (1st) anniversary of the Rent Commencement Date occurs; provided, however, if the Rent Commencement Date occurs on the first day of a calendar month, then the first Rent Year shall end on the day immediately preceding the first (1st) anniversary of the Rent Commencement Date. Thereafter, "**Rent Year**" shall be defined as any subsequent twelve (12) month period during the term of this Lease; provided, however, the final Rent Year of the initial Term shall end no later than the Lease Expiration Date.

** Annualized, if applicable.

***Base Rent increases annually by three percent (3%).

5. Tenant's Share (Article 4): Eight and 7/100 percent (8.07%).

6. Permitted Use (Article 5) The Premises shall be used only for general office, research and development and laboratory uses, and other ancillary uses reasonably related to or incidental to such specified uses, all (i) consistent with first class combination office, research, development and laboratory facilities in the Boulder market ("First Class Life Sciences Projects"), (ii) in proportions consistent with the capacity of the base Building design (it being acknowledged that the Tenant Improvements are constructed in such consistent proportions), and (iii) in compliance with, and subject to, Legal Requirements and the terms of this Lease (it being understood and agreed that Tenant shall not have the right to seek variances or other permits to vary the uses permitted by Legal Requirements at the Building).

7. Letter of Credit Amount (Article 21):	$265,000.00.
8. Parking (Article 28):	Two and 5/10 (2.5) unreserved parking passes for every 1,000 RSF of the Premises, subject to the terms of Article 28 of the Lease.
9. Address of Tenant (Section 29.18):	Camp4 Therapeutics Corporation One Kendall Square, Building 1400 West 3rd Floor Cambridge, MA 02139 Attention: Kelly Gold
10. Address of Landlord (Section 29.18):	See Section 29.18 of the Lease.
11. Broker(s) (Section 29.24):	CBRE/Colorado Region 1225 17th Street, Suite 3200 Denver, CO 80202 Attention: [***] CBRE 2755 Canyon Blvd First Floor Boulder, CO 80302 Attention: [***]

1. **PREMISES, BUILDING, PROJECT, AND COMMON AREAS**

1.1 **Premises, Building, Project and Common Areas**.

1.1.1 **The Premises**.

1.1.1.1 Landlord hereby leases to Tenant and Tenant hereby leases from Landlord the Premises (as set forth in Section 2.2 of the Summary). The outline of the Premises is set forth in Exhibit A attached hereto and made a part hereof. The parties hereto agree that the lease of the Premises is upon and subject to the terms, covenants and conditions herein set forth, and Tenant covenants as a material part of the consideration for this Lease to keep and perform each and all of such terms, covenants and conditions by it to be kept and performed and that this Lease is made upon the condition of such performance. The parties hereto hereby acknowledge that the purpose of Exhibit A is to show the approximate location of the Premises only, and such Exhibit is not meant to constitute an agreement, representation or warranty as to the construction of the Premises, the precise area thereof or the specific location of any Common Areas or the elements thereof or of the accessways to the Premises or the Project.

1.1.1.2 On the Lease Commencement Date, the Building Systems (hereinafter defined) serving the Premises shall be in good working order and condition, and the Premises shall comply with applicable building codes. Subject to the foregoing, and subject further to the performance of Tenant's Fitout in accordance with the Tenant Work Letter attached hereto as Exhibit B and made a part hereof (the "**Tenant Work Letter**"), Landlord shall tender possession of the Premises to Tenant in its existing, "as is," "where is" condition and without representations or warranties, express or implied, in fact or by law, of any kind (except as may be expressly provided herein), and without recourse to Landlord, and Landlord shall not be obligated to provide or pay for any improvement work or services related to the improvement of the Premises (except Landlord shall be liable throughout the Lease Term and at its sole cost and expense to correct structural defects not caused or aggravated by Tenant). Landlord shall be deemed to have tendered possession of the Premises to Tenant upon the date that Landlord provides Tenant with a key or access card to the Premises with Tenant's Fitout substantially complete, as such terms are defined in the Tenant Work Letter (the "**Lease Commencement Date**"), and no action by Tenant shall be required therefor. Except as expressly set forth in Section 2(i) of the Tenant Work Letter, if for any reason, Landlord is delayed in tendering possession of the Premises to Tenant by any particular date, Landlord shall not be subject to any liability for such failure, and the validity of this Lease shall not be impaired. Except as expressly set forth in Section 2(k) of the Tenant Work Letter, neither Landlord nor any agent of Landlord has made any representation or warranty regarding the condition of the Premises, the Building or the Project or with respect to the suitability of any of the foregoing for the conduct of Tenant's business, and Tenant acknowledges and agrees that, subject to the first sentence of this Section 1.1.1.2 and the terms of the Tenant Work Letter, Tenant is leasing the Premises in their "AS IS," "WHERE IS" condition and with all faults on the Execution Date, without representations or warranties, express or implied, in fact or by law, of any kind, and without recourse to Landlord. Without limiting the generality of the foregoing, except as may be affected by Tenant's Fitout, Base Building utilities (including capacities thereof) shall be provided without warranty, in their currently existing, "as-is" condition.

1.1.2 **Common Areas**. Tenant shall have the non-exclusive right to use in common with others entitled thereto, and subject to the rules and regulations referred to in Article 5 of this Lease, those portions of the Project which are designated, from time to time, for use in common by, inter alia, Landlord, Tenant and any other occupants of the Project (such areas are collectively referred to herein as the "Common Areas"). The manner in which the Common Areas are maintained and operated shall be at the sole discretion of Landlord and the use thereof shall be subject to the Rules and Regulations. Landlord reserves the right to close temporarily, make alterations or additions to, or change the location of elements of the Project and the Common Areas. Landlord shall use commercially reasonable efforts to minimize unreasonable interference with Tenant's use and occupancy of, and access to, the Premises in connection with the exercise of Landlord's right pursuant to this Section 1.1.2.

1.1.3 **Access**.

1.1.3.1 From and after the Lease Commencement Date and until the end of the Lease Term, Tenant shall have access to the Premises twenty-four (24) hours a day, seven (7) days a week, subject to Force Majeure, Legal Requirements, and the terms of this Lease.

1.1.3.2 Subject to compliance with Article 8 below, Tenant shall have the right to access the Premises, at Tenant's sole risk, during the thirty (30) day period prior to the Lease Commencement Date (the "**Early Access Period**") at no charge for purposes reasonably related to the installation of Tenant's wiring, cabling, furniture, fixtures and equipment, provided such access does not materially adversely interfere with the preparation for or performance of Tenant's Fitout. It is understood and agreed that Landlord shall not have any liability whatsoever with respect to any damage to or loss of any of Tenant's Property installed prior to the Lease Commencement Date. Tenant shall, prior to the first entry to the Premises pursuant to this Section 1.1.3.2, provide Landlord with certificates of insurance evidencing that the insurance required in Section 10.3 hereof is in full force and effect and covering any person or entity entering the Building. Tenant shall defend, indemnify and hold the Landlord Parties harmless from and against any and all Claims for injury to persons or property to the extent (a) arising from Tenant's negligence or willful misconduct in or about the Building, or (b) related to its access to and/or use of the Premises, in either case prior to the Lease Commencement Date as provided under this Section 1.1.3.2.

1.2 **Rentable Square Feet of Premises**. The RSF of the Premises and the Building are hereby deemed to be as set forth in Section 2 of the Summary, and shall not be subject to measurement or adjustment during the Lease Term except after (a) substantial completion of restoration of the Building (or any portion thereof) after a Casualty, (b) the effective date of any taking affecting the Building or any portion thereof, and/or (c) substantial completion of any changes to the interior Common Areas of the Building, in which event the Premises and/or the Building, as applicable, shall be measured in accordance with the Building's then-current version of the Standard Method of Measurement for Office Buildings (ANSI/BOMA) (or if such standard is no longer in use, using an industry-standard method of measurement reasonably selected by Landlord), as the same may be reasonably modified. Tenant shall execute an agreement confirming any of the foregoing measurements and any resulting adjustments within ten (10) business days after Landlord's request therefor. Tenant's failure to execute and return any such agreement proposed by Landlord, or to provide written objection to the statements contained therein, within ten (10) business days after the date of Tenant's receipt thereof, shall be deemed an approval by Tenant of Landlord's determination of such figures as set forth therein.

2. LEASE TERM; OPTION TERM

2.1 **Lease Term**. The terms and provisions of this Lease shall be effective as of the Execution Date. The term of this Lease (the "**Lease Term**") shall be as set forth in Section 3.1 of the Summary, shall commence on the Lease Commencement Date set forth in Section 3.3 of the Summary, and shall terminate on the Lease Expiration Date set forth in Section 3.4 of the Summary unless this Lease is sooner extended or terminated as hereinafter provided. At any time during the Lease Term, Landlord may deliver to Tenant a notice in the form as set forth in Exhibit C, attached hereto and incorporated herein, as a confirmation only of the information set forth therein, which Tenant shall execute and return to Landlord within five (5) business days of receipt thereof. Tenant's failure to execute and return any such notice, or to provide written objection to the statements contained therein, within five (5) business days after Tenant's receipt thereof, shall be deemed an approval by Tenant of the dates as set forth therein.

2.2 **Option Term**.

2.2.1 **Option Right**. Provided that the following conditions (the "**Extension Conditions**"), any or all of which may be waived by Landlord in its sole discretion, are satisfied (i) the Tenant originally named in this Lease (the "**Original Tenant**") and/or a Permitted Transferee (hereinafter defined) is/are then occupying at least seventy-five percent (75%) of the Premises, (ii) as of the date of delivery of the extension notice, no Event of Default shall be continuing, and (iii) as of the end of the initial Lease Term, no Event of Default shall be continuing, Landlord hereby grants Original Tenant one (1) option to extend the Lease Term for a period of five (5) years (the "**Option Term**"). Such option to extend shall be exercisable only by written notice delivered by Tenant to Landlord not more than fifteen (15) months nor less than twelve (12) months prior to the expiration of the initial Lease Term, stating that Tenant is thereby irrevocably exercising its option to lease the Premises during the Option Term. Upon the satisfaction of the Extension Conditions and the exercise of the option to extend in accordance with the provisions of this Section 2.2, the Lease Term shall be extended for the Option Term upon all of the terms and conditions of this Lease, except that Base Rent during such Option Term shall be calculated in accordance with this Section 2.2, Landlord shall have no obligation to make any improvements to the Premises in connection with Tenant's exercise of such extension option (it being understood and agreed that the foregoing shall not reduce, derogate from or otherwise modify Landlord's repair and maintenance obligations set forth in this Lease) and Tenant shall have no further right to extend the Lease Term. The rights contained in this Section 2.2 shall be personal to Original Tenant or a Permitted Transferee (and not any other assignee, sublessee or Transferee of Tenant's interest in this Lease). In the event that Tenant fails to timely and appropriately exercise its initial option to extend the Lease Term, in accordance with the terms of this Section 2.2, then such option shall automatically terminate and shall be of no further force or effect.

2.2.2 **Option Rent**. The Base Rent during the Option Term (the "**Option Term Base Rent**") shall be determined in accordance with the process described hereafter. Option Term Base Rent shall be the fair market rental value of the Premises then demised to Tenant as of the commencement of the Option Term as determined in accordance with the process described below, for renewals of combination laboratory and office space in the Boulder, Colorado market of equivalent quality, size, utility and location, with the length of the Option Term, and all other relevant factors to be taken into account. Within thirty (30) days after receipt of Tenant's timely and proper extension notice, Landlord shall deliver to Tenant written notice of its determination of the Option Term Base Rent. Tenant shall, within thirty (30) days after receipt of such notice, notify Landlord in writing whether Tenant accepts or rejects Landlord's determination of the Option Term Base Rent and, if Tenant rejects Landlord's determination of the Option Term Base Rent, that Tenant desires to submit the matter to the determination process hereinafter described in this Section 2.2.2 ("**Tenant's Response Notice**"). If Tenant fails within such thirty (30) day period to deliver Tenant's Response Notice, Landlord's determination of the Option Term Base Rent shall be binding on Tenant. If and only if Tenant's Response Notice is delivered to Landlord within such thirty (30) day period and such notice indicates both that Tenant rejects Landlord's determination of the Option Term Base Rent and desires to submit the matter to the determination process hereinafter described in this Section 2.2.2 (the "**Determination Process**"), then the Option Term Base Rent shall be determined in accordance with the following procedure. In such event, Landlord and Tenant shall promptly enter into good faith negotiations in an attempt to agree upon the Option Term Base Rent and, if Landlord and Tenant are unable to agree on the Option Term Base Rent within thirty (30) days after receipt by Landlord of Tenant's Response Notice, then within ten (10) business days after the end of such thirty (30)-day period, Tenant and Landlord shall each notify the other, in writing, of their respective selections of an appraiser (respectively, "**Landlord's Appraiser**" and "**Tenant's Appraiser**"). If Landlord's Appraiser and Tenant's Appraiser are unable to agree within thirty (30) days on the Option Term Base Rent, Landlord's Appraiser and Tenant's Appraiser shall then jointly select a third appraiser (the "**Third Appraiser**") within ten (10) business days after the end of such 30-day period. All of the appraisers selected shall be individuals with at least ten (10) consecutive years' commercial appraisal or brokerage experience in the area in which the Premises are located and, in the case of the Third Appraiser, shall not have acted in any capacity for either Landlord or Tenant within five (5) years of his or her selection. The three appraisers shall determine the Option Term Base Rent in accordance with the requirements and criteria set forth in this Section 2.2.2 above, employing the method commonly known as Baseball Arbitration, whereby Landlord's Appraiser and Tenant's Appraiser each sets forth its determination of the Option Term Base Rent, and the Third Appraiser must select one or the other (it being understood that the Third Appraiser shall be expressly prohibited from selecting a compromise figure). Landlord's Appraiser and Tenant's Appraiser shall deliver their determinations of the Option Term Base Rent to the Third Appraiser within five (5) business days of the appointment of the Third Appraiser and the Third Appraiser shall render his or her decision within ten (10) business days after receipt of both of the other two determinations of the Option Term Base Rent. The Third Appraiser's decision shall be binding on both Landlord and Tenant. Each party shall bear the cost of its own appraiser, and the cost of the Third Appraiser shall be paid by the party whose determination is not selected.

3. **BASE RENT**

Tenant shall pay, without prior notice or demand, to Landlord or Landlord's agent at the management office of the Project, or, at Landlord's option, at such other place as Landlord may from time to time designate in writing, in lawful money of the United States which shall be legal tender for private or public debts in the United States of America, base rent ("**Base Rent**") as set forth in Section 4 of the Summary, payable in equal monthly installments as set forth in Section 4 of the Summary in advance on or before the first day of each and every calendar month from and after the Rent Commencement Date during the Lease Term, without any setoff, counterclaim, defense, abatement, suspension, deferment, reduction or deduction whatsoever. The Base Rent for the first full month of the Lease Term following the Rent Commencement Date shall be paid at the time of Tenant's execution of this Lease. If any Rent payment date (including the Rent Commencement Date) falls on a day of the month other than the first day of such month or if any payment of Rent is for a period which is shorter than one month, such Rent for any fractional month shall accrue on a daily basis for the period from the date such payment is due to the end of such calendar month or to the end of the Lease Term at a rate per day which is equal to 1/365 of the applicable annual Rent. All other payments or adjustments required to be made under the terms of this Lease that require proration on a time basis shall be prorated on the same basis. Other than the first month's Base Rent as required hereunder, in no event shall Tenant pay any installment of Base Rent more than one (1) month in advance. Rent shall be paid by check, ACH or wire transfer in accordance with instructions provided by Landlord from time to time or via such other method(s) designated by Landlord. Without limitation on other obligations of Tenant which survive the expiration of the Lease Term, the obligations of Tenant to pay Base Rent provided for in this Article 3 shall survive the expiration of the Lease Term.

4. **ADDITIONAL RENT**

4.1 **General Terms**.

4.1.1 **Direct Expenses; Additional Rent**. In addition to paying the Base Rent specified in Article 3 of this Lease, from and after the Lease Commencement Date, Tenant shall pay Tenant's Share of the annual Direct Expenses. Such payments by Tenant, together with any and all other amounts payable by Tenant to Landlord pursuant to the terms of this Lease, are hereinafter collectively referred to as the "**Additional Rent**," and the Base Rent and the Additional Rent are herein collectively referred to as "**Rent**." All amounts due under this Article 4 as Additional Rent shall be payable for the same periods and in the same manner as the Base Rent. Without limitation on other obligations of Tenant which survive the expiration of the Lease Term, the obligations of Tenant to pay the Additional Rent provided for in this Article 4 shall survive the expiration of the Lease Term.

4.1.2 **Triple Net Lease**. Landlord and Tenant acknowledge that, except as otherwise provided to the contrary in this Lease, it is their intent and agreement that this Lease be a "**TRIPLE NET**" lease and that as such, the provisions contained in this Lease are intended to pass on to Tenant or reimburse Landlord for the costs and expenses reasonably associated with this Lease, the Building and the Project, and Tenant's operation therefrom. To the extent such costs and expenses payable by Tenant cannot be charged directly to, and paid by, Tenant, such costs and expenses shall be paid by Landlord but reimbursed by Tenant as Additional Rent.

4.2 **Definitions of Key Terms Relating to Additional Rent**. As used in this Article 4, the following terms shall have the meanings hereinafter set forth:

4.2.1 "**Direct Expenses**" shall mean "**Operating Expenses**" and "**Tax Expenses**."

4.2.2 "**Expense Year**" shall mean each calendar year in which any portion of the Lease Term falls, through and including the calendar year in which the Lease Term expires, provided that Landlord, upon notice to Tenant, may change the Expense Year from time to time to any other twelve (12) consecutive month period, and, in the event of any such change, Tenant's Share of Direct Expenses shall be equitably adjusted for any Expense Year involved in any such change.

4.2.3 "**Operating Expenses**" shall mean all expenses, costs and amounts of every kind and nature which Landlord pays or accrues during any Expense Year because of or in connection with the ownership, management, maintenance, security, repair, replacement, restoration or operation of the Project, or any portion thereof. Without limiting the generality of the foregoing, Operating Expenses shall specifically include any and all of the following: (i) the cost of supplying all utilities, the cost of operating, repairing, maintaining, and renovating the utility, telephone, mechanical, sanitary, storm drainage, elevator and other Building systems, and the cost of maintenance and service contracts in connection therewith; (ii) the cost of licenses, certificates, permits and inspections and the cost of contesting any governmental enactments which may affect Operating Expenses, and the costs incurred in connection with a governmentally mandated transportation system management program or similar program; (iii) the cost of all insurance carried by Landlord in connection with the Project and Premises as reasonably determined by Landlord; (iv) the cost of landscaping, relamping, and all supplies, tools, equipment and materials used in the operation, repair and maintenance of the Project, or any portion thereof; (v) the cost of parking area operation, repair, restoration, and maintenance; (vi) fees and other costs, including management and/or incentive fees, consulting fees, legal fees and accounting fees, of all contractors and consultants in connection with the management, operation, maintenance and repair of the Project; (vii) payments under any equipment rental agreements and the fair rental value of any management office space; (viii) subject to item (f), below, wages, salaries and other compensation and benefits, including taxes levied thereon, of all persons engaged in the operation, maintenance and security of the Project; (ix) costs under any instrument pertaining to the sharing of costs by the Project; (x) operation, repair, maintenance and replacement of all systems and equipment and components thereof of the Project (provided, however, to the extent any such replacement would constitute a capital expenditure under GAAP, the costs of such replacement shall not be included in Operating Expenses unless such replacement is a capital expenditure described in clause (xiii) below); (xi) the cost of janitorial services provided to the Common Areas, alarm, security and other services, replacement of wall and floor coverings, ceiling tiles and fixtures in Common Areas, maintenance and replacement of curbs and walkways, repairs to roofs and re-roofing; (xii) amortization (including interest on the unamortized cost) over such period of time as Landlord shall reasonably determine, of the cost of acquiring or the rental expense of personal property used in the maintenance, operation and repair of the Project, or any portion thereof; (xiii) the cost of capital improvements or other costs incurred in connection with the Project (A) which are effected to reduce current or future Operating Expenses, or (B) that are required to comply with Legal Requirements first enacted after the Execution Date; provided, however, that any capital expenditure shall be amortized (including interest on the amortized cost) over such period of time as Landlord shall reasonably determine; (xiv) costs, fees, charges or assessments imposed by, or resulting from any mandate imposed on Landlord by, any federal, state or local government for fire and police protection, trash removal, community services, or other services which do not constitute Tax Expenses; (xv) cost of tenant relation programs reasonably established by Landlord and market rental and expenses to operate, maintain and repair amenities and programming provided by Landlord for the benefit of tenants; and (xvi) payments under any easement, license, operating agreement, declaration, restrictive covenant, condominium document or other instrument pertaining to the sharing of costs by the Building, including any covenants, conditions and restrictions affecting the Project, reciprocal easement agreements affecting the Project, any parking licenses, and any agreements with transit agencies affecting the Project (collectively, "**Underlying Documents**"). Notwithstanding the foregoing, for purposes of this Lease, Operating Expenses shall not include Excluded Costs.

4.2.4 "**Excluded Costs**" shall mean:

(a) costs, including legal fees, space planners' fees, advertising and promotional expenses (except as otherwise set forth above), and brokerage fees incurred in connection with the original construction or development, or original or future leasing of the Project, and costs, including permit, license and inspection costs, incurred with respect to the installation of tenant improvements made for new tenants initially occupying space in the Project after the Lease Commencement Date or incurred in renovating or otherwise improving, decorating, painting or redecorating vacant space for tenants or other occupants of the Project (excluding, however, such costs relating to any Common Areas or parking facilities);

(b) except as set forth in items (xii), (xiii), and (xiv) above, depreciation, interest and principal payments on mortgages and other debt costs, if any, penalties and interest;

(c) costs for which the Landlord is reimbursed by any tenant or occupant of the Project or by insurance (by its carrier or any tenant's carrier) or by anyone else, and electric power costs for which any tenant directly contracts with the local public service company;

(d) any bad debt loss, rent loss, or reserves for bad debts or rent loss;

(e) costs associated with the operation of the business of the partnership or entity which constitutes the Landlord, as the same are distinguished from the costs of operation of the Project (which shall specifically include accounting costs associated with the operation of the Project). Costs associated with the operation of the business of the partnership or entity which constitutes the Landlord include costs of partnership accounting and legal matters, costs of defending any lawsuits with any Mortgagee (except as the actions of the Tenant may be in issue), costs of selling, syndicating, financing, mortgaging or hypothecating any of the Landlord's interest in the Project, and costs incurred in connection with any disputes between Landlord and its employees, between Landlord and Project management, or between Landlord and other tenants or occupants;

(f) the wages and benefits of any employee who does not devote substantially all of his or her employed time to the Project unless such wages and benefits are prorated to reflect time spent on operating and managing the Project vis-a-vis time spent on matters unrelated to operating and managing the Project; provided, that in no event shall Operating Expenses for purposes of this Lease include wages and/or benefits attributable to personnel above the level of Project manager;

(g) amount paid as ground rental for the Project by the Landlord;

(h) except for a Project management fee, overhead and profit increment paid to the Landlord or to subsidiaries or affiliates of the Landlord for services in the Project to the extent the same exceeds the costs of such services rendered by qualified, first-class unaffiliated third parties on a competitive basis;

(i) any compensation paid to clerks, attendants or other persons in commercial concessions operated by the Landlord, provided that any compensation paid to any concierge at the Project shall be includable as an Operating Expense;

(j) rentals and other related expenses incurred in leasing air conditioning systems, elevators or other equipment which if purchased the cost of which would be excluded from Operating Expenses as a capital cost, except equipment not affixed to the Project which is used in providing engineering, janitorial or similar services and, further excepting from this exclusion such equipment rented or leased to remedy or ameliorate an emergency condition in the Project;

(k) all items and services for which Tenant or any other tenant in the Project reimburses Landlord or which Landlord provides selectively to one or more tenants (other than Tenant) without reimbursement;

(l) any costs expressly excluded from Operating Expenses elsewhere in this Lease;

(m) rent for any office space occupied by Project management personnel to the extent the size or rental rate of such office space exceeds the size or fair market rental value of office space occupied by management personnel of the comparable buildings in the vicinity of the Building, with adjustment where appropriate for the size of the applicable project;

(n) costs arising from the gross negligence or willful misconduct of Landlord in connection with this Lease; and

(o) costs incurred to comply with Legal Requirements relating to the removal of any Hazardous Material which was in existence in the Building or on the Project prior to the Lease Commencement Date, and was of such a nature that a federal, State or municipal governmental authority, if it had then had knowledge of the presence of such Hazardous Material, in the state, and under the conditions that then existed in the Building or on the Project, would have then required the removal of such Hazardous Material or other remedial or containment action with respect thereto; and costs incurred to remove, remedy, contain, or treat Hazardous Material, which Hazardous Material is brought into the Building or onto the Project after the date hereof by Landlord or any other tenant of the Project and is of such a nature, at that time, that a federal, State or municipal governmental authority, if it had then had knowledge of the presence of such Hazardous Material, in the state, and under the conditions, that then exists in the Building or on the Project, would have then required the removal of such Hazardous Material or other remedial or containment action with respect thereto.

(p) costs of capital improvements required to comply with Legal Requirements in effect prior to the Execution Date.

(q) Costs associated with the initial construction of any amenity space.

If Landlord is not furnishing any particular work or service (the cost of which, if performed by Landlord, would be included in Operating Expenses) to a tenant who has undertaken to perform such work or service in lieu of the performance thereof by Landlord, Operating Expenses shall be deemed to be increased by an amount equal to the additional Operating Expenses which would reasonably have been incurred during such period by Landlord if it had at its own expense furnished such work or service to such tenant. If the Project is not at least ninety-five percent (95%) occupied during all or a portion of any Expense Year, Landlord shall make an appropriate adjustment to the components of Operating Expenses for such year to determine the amount of Operating Expenses that would have been incurred had the Project been ninety-five percent (95%) occupied; and the amount so determined shall be deemed to have been the amount of Operating Expenses for such year.

4.2.5 **Taxes**.

4.2.5.1 "**Tax Expenses**" shall mean the real estate taxes and other ad valorem and non-ad valorem taxes, levies and assessments imposed upon (a) the Building, the tax lot(s) on which the Building is located (the "**Tax Lot**") and any other buildings located on the Tax Lot (collectively, the "**Tax Property**"), (b) any personal property of Landlord used in the operation of the Tax Property, and/or (c) Landlord's interest in the Tax Property or such personal property, and any real estate taxes and other ad valorem and non-ad valorem taxes, levies and assessments reasonably allocated to any of the foregoing, including: charges, fees and assessments for transit, housing, police, fire or other services or purported benefits to the Tax Property (including any community preservation assessments and/or business improvement district assessments); service or user payments in lieu of taxes; and any and all other taxes, levies, betterments, assessments and charges which shall be paid or accrued during any Expense Year (without regard to any different fiscal year used by such governmental or municipal authority) arising from the ownership, leasing, operation, use or occupancy of the Tax Property or based upon rentals derived therefrom, which are or shall be imposed by federal, state, county, municipal or other governmental authorities. If any such Tax Expense is levied or assessed directly against Tenant, then Tenant shall be responsible for and shall pay the same at such times and in such manner as the taxing authority shall require.

4.2.5.2 Any costs and expenses (including reasonable attorneys' and consultants' fees) incurred in attempting to protest, reduce or minimize Tax Expenses shall be included in Tax Expenses in the Expense Year such expenses are incurred. Tax refunds shall be credited against Tax Expenses and refunded to Tenant regardless of when received, based on the Expense Year to which the refund is applicable, provided that in no event shall the amount to be refunded to Tenant for any such Expense Year exceed the total amount paid by Tenant as Additional Rent under this Article 4 for such Expense Year. Notwithstanding anything to the contrary set forth in this Lease, (a) only Landlord may institute proceedings to reduce Tax Expenses and the filing of any such proceeding by Tenant without Landlord's consent shall constitute an Event of Default by Tenant under this Lease, and (b) Landlord shall not be obligated to file any application or institute any proceeding seeking a reduction in Tax Expenses. Further, notwithstanding anything to the contrary set forth in this Lease, in the event that any discount, reduction or exemption of Tax Expenses shall occur as a result of the tax-exempt status of any other tenant of the Project, Tenant hereby acknowledges and agrees that Tax Expenses for purposes of this Lease shall be calculated as if such discount, reduction or exemption were not in place. If Tax Expenses for any period during the Lease Term or any extension thereof are increased after payment thereof for any reason, including error or reassessment by applicable governmental or municipal authorities, Tenant shall pay Landlord upon demand Tenant's Share of any such increased Tax Expenses.

4.2.5.3 Notwithstanding anything to the contrary contained in this Section 4.2.5, there shall be excluded from Tax Expenses (i) all excess profits taxes, franchise taxes, gift taxes, capital stock taxes, inheritance and succession taxes, estate taxes, federal and state income taxes, and other taxes to the extent applicable to Landlord's net income (as opposed to rents, receipts or income attributable to operations at the Project); provided, however, that any of the same and any other tax, excise, fee, levy, charge or assessment, however described, that may in the future be levied or assessed as a substitute for or in addition to, in whole or in part, any tax, levy or assessment which would otherwise constitute Tax Expenses, whether or not now customary or in the contemplation of the parties on the Execution Date of this Lease, shall constitute Tax Expenses, but only to the extent calculated as if the Tax Property were the only real estate owned by Landlord, (ii) any items included as Operating Expenses, and (iii) any items paid by Tenant under Section 4.5 of this Lease.

4.2.6 "**Tenant's Share**" shall mean the percentage set forth in Section 5 of the Summary.

4.3 **Allocation of Direct Expenses**.

4.3.1 **Method of Allocation**. The parties acknowledge that the Building is a part of a multi-building project and that the costs and expenses incurred in connection with the Project (i.e., the Direct Expenses) should be shared between the Building and the Other Buildings. Accordingly, as set forth in Section 4.2 above, Direct Expenses (which consist of Operating Expenses and Tax Expenses) are determined annually for the Project as a whole, and a portion of the Direct Expenses, which portion shall be determined by Landlord on an equitable basis, shall be allocated to the Building (as opposed to the Other Buildings). Such portion of Direct Expenses allocated to the Building shall include all Direct Expenses attributable solely to the Building and an equitable portion of the Direct Expenses attributable to the Project as a whole, and shall not include Direct Expenses attributable solely to the Other Buildings. To the extent different tax rates apply to spaces in the Project, Taxes will be allocated based on the applicable tax rate (e.g., if lab space is taxed at a different rate than office space, then Taxes subject to such different rate shall be allocated accordingly).

4.3.2 **Cost Pools**. Landlord shall have the right, from time to time to equitably allocate some or all of the Direct Expenses for the Project among different portions or occupants of the Project (the "**Cost Pools**"), in Landlord's reasonable discretion, provided that no Direct Expenses for portions of the Project that are not available for use by Tenant shall be allocated to a Cost Pool that is made applicable to Tenant. Such Cost Pools may include tenants who share or have similar use of particular systems or equipment. The Direct Expenses within each such Cost Pool shall be allocated and charged to the tenants within such Cost Pool in an equitable manner.

4.4 **Calculation and Payment of Additional Rent**. Commencing on the Lease Commencement Date, Tenant shall pay to Landlord, in the manner set forth in Section 4.4.1, below, and as Additional Rent, Tenant's Share of Direct Expenses for each Expense Year.

4.4.1 **Statement of Actual Direct Expenses and Payment by Tenant**. Landlord shall endeavor to give to Tenant following the end of each Expense Year, a statement (the "**Statement**") which shall state the Direct Expenses incurred or accrued for such preceding Expense Year, and which shall indicate the amount of Tenant's Share of Direct Expenses. Within thirty (30) days after receipt of the Statement for each Expense Year commencing or ending during the Lease Term, Tenant shall pay the full amount of Tenant's Share of Direct Expenses for such Expense Year, less the amounts, if any, paid during such Expense Year as Estimated Direct Expenses, and if Tenant paid more as Estimated Direct Expenses than the actual Tenant's Share of Direct Expenses, then provided Tenant is not then in default hereunder, Tenant shall receive a credit in the amount of Tenant's overpayment against Additional Rent on account of Direct Expenses next due under this Lease (it being understood and agreed that if Tenant cures any default prior to the expiration of the applicable notice and/or cure periods set forth in Section 19.1 below, Tenant shall then be entitled to such credit); provided, however, if such overpayment is determined after the end of the Lease Term, Landlord shall refund such difference to Tenant within thirty (30) days after such determination to the extent that such difference exceeds any amounts then due from Tenant to Landlord. The failure of Landlord to timely furnish the Statement for any Expense Year shall not prejudice Landlord or Tenant from enforcing its rights under this Article 4. The provisions of this Section 4.4.1 shall survive the expiration or earlier termination of the Lease Term.

4.4.2 **Statement of Estimated Direct Expenses**. In addition, Landlord shall give Tenant a yearly expense estimate statement (the "**Estimate Statement**") which shall set forth Landlord's reasonable estimate (the "**Estimate**") of what the total amount of Direct Expenses for the applicable Expense Year shall be and the estimated Tenant's Share of Direct Expenses (the "**Estimated Direct Expenses**"). Landlord shall use commercially reasonable efforts to provide the Estimate Statement before the date which is ninety (90) days after the end of each Expense Year. The failure of Landlord to timely furnish the Estimate Statement for any Expense Year shall not preclude Landlord from enforcing its rights to collect any Estimated Direct Expenses under this Article 4, nor shall Landlord be prohibited from revising any Estimate Statement or Estimated Direct Expenses theretofore delivered to the extent necessary. Thereafter, Tenant shall pay, with its next installment of Base Rent due, a fraction of the Estimated Direct Expenses for the then-current Expense Year (reduced by any amounts paid pursuant to the last sentence of this Section 4.4.2). Such fraction shall have as its numerator the number of months which have elapsed in such current Expense Year, including the month of such payment, and twelve (12) as its denominator. Until a new Estimate Statement is furnished (which Landlord shall have the right to deliver to Tenant at any time), Tenant shall pay monthly, with the monthly Base Rent installments, an amount equal to one-twelfth (1/12) of the total Estimated Direct Expenses set forth in the previous Estimate Statement delivered by Landlord to Tenant.

4.5 **Taxes and Other Charges for Which Tenant Is Directly Responsible**.

4.5.1 Tenant shall be liable for and shall pay before delinquency, taxes levied against Tenant's equipment, furniture, fixtures and any other personal property located in or about the Premises. If any such taxes on Tenant's equipment, furniture, fixtures and any other personal property are levied against Landlord or Landlord's property or if the assessed value of Landlord's property is increased by the inclusion therein of a value placed upon such equipment, furniture, fixtures or any other personal property and if Landlord pays the taxes based upon such increased assessment, which Landlord shall have the right to do regardless of the validity thereof but only under proper protest if requested by Tenant, Tenant shall upon demand repay to Landlord the taxes so levied against Landlord or the proportion of such taxes resulting from such increase in the assessment, as the case may be.

4.5.2 If the tenant improvements in the Premises, whether installed and/or paid for by Landlord or Tenant and whether or not affixed to the real property so as to become a part thereof, are assessed for real property tax purposes at a valuation higher than the valuation at which tenant improvements conforming to Landlord's "building standard" in other space in the Building are assessed, then the Tax Expenses levied against Landlord or the Project (or any portion thereof) by reason of such excess assessed valuation shall be deemed to be taxes levied against personal property of Tenant and shall be governed by the provisions of Section 4.5.1, above.

4.5.3 Notwithstanding any contrary provision herein, Tenant shall pay prior to delinquency any (i) rent tax or sales tax, gross receipts tax, service tax, transfer tax or value added tax, business tax or any other applicable tax on the rent or services herein or otherwise respecting this Lease, (ii) taxes assessed upon or with respect to the possession, leasing, operation, management, maintenance, alteration, repair, use or occupancy by Tenant of the Premises or any portion of the Project, including the Project parking facility; and/or (iii) taxes assessed upon this transaction or any document to which Tenant is a party creating or transferring an interest or an estate in the Premises.

5. USE OF PREMISES

5.1 **Permitted Use**. Tenant shall use the Premises solely for the Permitted Use set forth in Section 6 of the Summary and Tenant shall not use or permit the Premises or the Project to be used for any other purpose or purposes whatsoever without the prior written consent of Landlord, which may be withheld in Landlord's sole discretion. Service and utility areas (whether or not a part of the Premises) shall be used only for the particular purpose for which they are designed. All corridor doors, when not in use, shall be kept closed. Tenant shall keep the Premises equipped with appropriate safety appliances to the extent required by Legal Requirements or insurance requirements.

5.2 **Prohibited Uses**. Tenant further covenants and agrees that Tenant shall not use, or suffer or permit any person or persons to use, the Premises or any part thereof for any use or purpose in violation of Legal Requirements. Tenant will faithfully observe and comply with (i) the Building Rules and Regulations annexed hereto as Exhibit D-1 and (ii) the "**Green Lease**" provisions annexed hereto as Exhibit D-2 (collectively, the "**Rules and Regulations**"), and further reasonable Rules and Regulations as Landlord hereafter at any time or from time to time may make and communicate in writing to Tenant, which in the reasonable judgment of Landlord shall be necessary for the reputation, safety, care or appearance of the Building, the Project or the preservation of good order therein, or the operation or maintenance of the Building, the Project or the equipment thereof, provided, however, that in the case of any conflict between the provisions of this Lease and any such future rules and regulations, the provisions of this Lease shall control. Nothing contained in this Lease shall be construed to impose upon Landlord any duty or obligation to enforce the Rules and Regulations or the terms, covenants or conditions in any other lease as against any other tenant and Landlord shall not be liable to Tenant for violation of the same by any other tenant, its servants, employees, agents, contractors, visitors, invitees or licensees. Tenant shall not do or permit anything to be done in or about the Premises which will in any way (a) damage the reputation of the Project; (b) impair, interfere with or otherwise diminish the quality of any of the Building services or the proper and economic heating, cleaning, ventilating, air conditioning or other servicing of the Building or Premises, or the use of any of the Common Areas; (c) obstruct or interfere with the rights of other tenants or occupants of the Building, or injure or annoy them; (d) use or allow the Premises to be used for any improper, unlawful or objectionable purpose; (e) cause harmful air emissions or laboratory odors or objectionable odors, noises or emissions to emanate from the Premises; (f) increase such insurance rates on the Building or on property located therein over that applicable when Tenant first took occupancy of the Premises hereunder; or (g) cause, maintain or permit any nuisance in, on or about the Premises. Furthermore, Tenant shall not (i) place or maintain any garbage, trash, rubbish or other refuse (collectively, "**Trash**"), signage (except as may be permitted by Article 23 below) or other articles in any vestibule or entry of the Premises, on the footwalks or corridors adjacent thereto or elsewhere on the exterior of the Premises, nor obstruct any driveway, corridor, footwalk, parking area, mall or any other Common Areas; (ii) permit undue accumulations of or burn Trash within or without the Premises; (iii) permit the parking of vehicles so as to interfere with the use of any driveway, corridor, footwalk, parking area, or other Common Areas; (iv) receive or ship articles of any kind outside of those areas reasonably designated by Landlord; (v) conduct or permit to be conducted any auction, going out of business sale, bankruptcy sale (unless directed by court order), or other similar type sale in or connected with the Premises; or (vi) permit or keep any animals other than trained certified service animals in the Building. Tenant shall comply with, and Tenant's rights and obligations under the Lease and Tenant's use of the Premises shall be subject and subordinate to, all governmental permits and approvals affecting the Project and all recorded easements, covenants, conditions, and restrictions now or hereafter affecting the Project, including any Underlying Documents.

5.3 **Hazardous Materials**.

5.3.1 **Tenant's Obligations**.

5.3.1.1 **Prohibitions**. As a material inducement to Landlord to enter into this Lease with Tenant, Tenant has fully and accurately completed and delivered to Landlord Landlord's Pre-Leasing Environmental Exposure Questionnaire (the "**Environmental Questionnaire**"), which is attached as Exhibit E and incorporated herein. Tenant agrees that except for those chemicals or materials, and their respective quantities, which are used by Tenant in the ordinary course of Tenant's business and are listed on the Environmental Questionnaire ("**Tenant's Hazardous Materials**"), and except for standard types and quantities of office and cleaning supplies stored in compliance with Environmental Laws and in proper containers and waste materials generated and managed in the ordinary course of using the chemicals or materials disclosed in the Environmental Questionnaire, neither Tenant nor any other Tenant Party will produce, bring upon, use, store, treat or generate any Hazardous Materials on, in, under, at or about the Premises, nor cause or permit any Hazardous Material to be brought upon, placed, stored, manufactured, generated, blended, handled, recycled, used or Released on, in, under, at or about the Premises. Tenant's Hazardous Materials shall be brought to, kept at or used in so-called 'control areas' (the number and size of which shall comply with the applicable provisions of the International Building Code and otherwise be reasonably determined by Landlord) and in accordance with all applicable Environmental Laws and prudent environmental practice and (with respect to medical waste and so-called "biohazard" materials) good scientific and medical practice. Notwithstanding anything to the contrary, in no event shall Tenant generate, produce, bring upon, use, store, generate or treat any infectious biological micro-organisms or any other Hazardous Materials in the Premises with a risk category above the level of Biosafety Level 2 as established and described by the Department of Health and Human Services Publication Biosafety in Microbiological and Biomedical Laboratories (Sixth Edition) (as it may be further revised, the "**BMBL**") or such nationally recognized new or replacement standards as may be reasonably selected by Landlord; and provided further that to the extent any Legal Requirements sets a maximum quantity of any Hazardous Materials which may be stored, used or brought into the Building without additional licensing, permitting or authorizations therefor, Tenant shall not be permitted to use, store or bring into the Building more than Tenant's Share of such Hazardous Materials. If any information provided to Landlord by Tenant on the Environmental Questionnaire, or otherwise relating to information concerning Hazardous Materials shall be knowingly false, incomplete, or misleading in any material respect as of the date submitted, the same shall be deemed an Event of Default by Tenant under this Lease. Tenant shall deliver to Landlord an updated Environmental Questionnaire within thirty (30) days of each anniversary of the Lease Commencement Date. Tenant shall not install or permit any underground storage tank on the Premises or elsewhere at the Project. In all events, Tenant shall comply with all applicable provisions of the BMBL. Tenant shall be responsible for assuring that all laboratory uses are adequately and properly vented. Tenant shall provide such further information concerning any Tenant's Hazardous Materials and/or their use, storage and/or disposal within thirty (30) days of Landlord's reasonable request concerning the same. With respect to any Hazardous Material brought or permitted to be brought or kept in or on the Premises or elsewhere in the Building or the Project in accordance with the foregoing, Tenant shall not permit any such Hazardous Material to be Released in or about the Premises, the Building or the Project except for disposal in accordance with all applicable Environmental Laws and prudent environmental practice and (with respect to medical waste and so-called "biohazard" materials) good scientific and medical practice. Notwithstanding the foregoing, with respect to any of Tenant's Hazardous Materials or biohazard materials that Landlord reasonably determines Tenant does not properly handle, store or dispose of in compliance with this Section 5.3, Tenant shall, upon written notice from Landlord, no longer have the right to bring such material into the Building or the Project until Tenant has demonstrated, to Landlord's reasonable satisfaction, that Tenant has implemented programs to thereafter properly handle, store or dispose of such material. In order to induce Landlord to waive its otherwise applicable requirement that Tenant maintain insurance in favor of Landlord against liability arising from the presence of radioactive materials in the Premises, and without limiting the foregoing, Tenant hereby represents and warrants to Landlord that at no time during the Lease Term will Tenant bring upon, or permit to be brought upon, the Premises any radioactive materials whatsoever.

5.3.1.2 For purposes of this Lease, "**Hazardous Materials**" means all flammable explosives, petroleum and petroleum products, waste oil, radon, radioactive materials, toxic pollutants, asbestos, polychlorinated biphenyls ("**PCBs**"), medical waste, chemicals known (according to the United States Environmental Protection Agency or any other governmental authority with jurisdiction over the Premises or over Tenant or any other Tenant Party) to cause cancer or reproductive toxicity, pollutants, contaminants, hazardous wastes, toxic substances or related materials, including any chemical, element, compound, mixture, solution, substance, object, waste or any combination thereof, which is or may be hazardous to human health, safety or to the environment due to its radioactivity, ignitability, corrosiveness, reactivity, explosiveness, toxicity, carcinogenicity, infectiousness or other harmful or potentially harmful properties or effects, or defined as, regulated as or included in, the definition of "**hazardous substances**," "**hazardous wastes**," "**hazardous materials**," or "**toxic substances**" under any Environmental Laws. The term "**Hazardous Materials**" for purposes of this Lease shall also include (a) live organisms, viruses and any so-called "biohazard" materials, and any materials on the right to know list of the Occupational Safety and Health Administration, and (b) any mold, fungus or spores, whether or not the same is defined, listed, or otherwise classified as a "**hazardous material**" under any Environmental Laws, if such mold, fungus or spores may pose a risk to human health or the environment or negatively impact the value of the Premises (provided, however, that in no event shall Tenant have any obligations or liability under this Lease for any such mold, fungus or spores that are present within the Premises through no act or omission of Tenant or any other Tenant Party). For purposes of this Lease, "**Release**" or "**Released**" or "**Releases**" shall mean any release, deposit, discharge, emission, leaking, spilling, seeping, migrating, injecting, pumping, pouring, emptying, escaping, dumping, disposing, or other movement of Hazardous Materials into the environment.

5.3.1.3 **Notices to Landlord**. Tenant shall notify Landlord in writing as soon as possible but in no event later than five (5) business days after (i) becoming aware of the occurrence of any actual, alleged or threatened Release of any Hazardous Material in, on, under, from, or at the Premises, regardless of the source or quantity of any such Release, or (ii) Tenant becomes aware of any regulatory actions, inquiries, inspections, investigations, directives, or any cleanup, compliance, enforcement or abatement proceedings (including any threatened or contemplated investigations or proceedings) involving the Tenant and relating to or potentially affecting the Premises, or (iii) Tenant becomes aware of any claims by any person or entity relating to any Hazardous Materials in, on, under, from, about or in the vicinity of the Premises, whether relating to damage, contribution, cost recovery, compensation, loss or injury. Collectively, the matters set forth in clauses (i), (ii) and (iii) above are hereinafter referred to as "**Hazardous Materials Claims**." Tenant shall promptly forward to Landlord copies of all orders, notices, permits, applications and other non-privileged communications and reports in connection with any Hazardous Materials Claims. Additionally, Tenant shall promptly advise Landlord in writing of Tenant's discovery of any occurrence or condition on, in, under or about the Premises that could subject Tenant or Landlord to any liability, or restrictions on ownership, occupancy, transferability or use of the Premises under any Environmental Laws. Tenant shall not enter into any legal proceeding or other action, settlement, consent decree or other compromise with respect to any Hazardous Materials Claims without first notifying Landlord of Tenant's intention to do so and affording Landlord the opportunity to join and participate, as a party if Landlord so elects, in such proceedings and in no event shall Tenant enter into any agreements which are binding on Landlord or the Premises without Landlord's prior written consent. Landlord shall have the right to appear at and participate in, any and all legal or other administrative proceedings concerning any Hazardous Materials Claim.

5.3.1.4 For purposes of this Lease, "**Environmental Laws**" means all applicable present and future laws, statutes, ordinances, rules and regulations of any local, state or federal governmental authority having jurisdiction relating to the protection of human health, safety, wildlife or the environment, including (i) all requirements pertaining to reporting, licensing, permitting, investigation and/or remediation of emissions, discharges, Releases, or threatened Releases of Hazardous Materials, whether solid, liquid, or gaseous in nature, into the air (including outdoor air and indoor air), surface water, groundwater, or land, or relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport, or handling of Hazardous Materials; and (ii) all requirements pertaining to the health and safety of the public, including those relating to lead paint, radon gas, asbestos, and the storage and disposal of oil and biological, chemical, laboratory, medical, radioactive and hazardous wastes, substances and materials. Environmental Laws include the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USC § 9601, et seq., the Hazardous Materials Transportation Authorization Act of 1994, 49 USC § 5101, et seq., the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, and Hazardous and Solid Waste Amendments of 1984, 42 USC § 6901, et seq., the Federal Water Pollution Control Act, as amended by the Clean Water Act of 1977, 33 USC§ 1251, et seq., the Clean Air Act of 1966, 42 USC§ 7401, et seq., the Toxic Substances Control Act of 1976, 15 USC § 2601, et seq., the Safe Drinking Water Act of 1974, 42 USC §§ 300f through 300j, the provisions of the Occupational Safety and Health Act of 1970, as amended, 29 USC § 651 et seq., regulating exposure to Hazardous Materials, the Oil Pollution Act of 1990, 33 USC § 2701 et seq., the Emergency Planning and Community Right-To-Know Act of 1986, 42 USC §11001 et seq., the National Environmental Policy Act of 1969, 42 USC § 4321 et seq., the Federal Insecticide, Fungicide and Rodenticide Act of 1947, 7 USC § 136 et seq., the Colorado Hazardous Waste Cleanup Act, C.R.S. §§ 25-16-101, et seq., the Colorado Hazardous Substances Act of 1973, C.R.S. §§ 25-5-501, et seq., the Colorado Water Quality Control Act, C.R.S. §§ 25-8-101, et seq., the Colorado Air Pollution Prevention and Control Act, C.R.S. §§ 25-7-101, et seq., the Colorado Petroleum Storage Tanks Act, C.R.S. §§ 8-20.5-101, et seq. and the Colorado Radiation Control Act §§ 25-11-101, et seq, including all rules and regulations promulgated thereunder, and any other state or local law counterparts, as amended, as such Legal Requirements, are in effect as of the Lease Commencement Date, or thereafter adopted, published, or promulgated.

5.3.1.5 **Releases of Hazardous Materials**. Subject to Section 5.3.8 below, if any Release of any Hazardous Material in, on, under, from or about the Premises shall occur at any time during the Lease and/or if any Hazardous Material is in, on, under, at or about the Building or the Project as a result of the acts or omissions of Tenant and/or Tenant's agents, servants, employees, consultants, contractors, subcontractors, licensees and/or subtenants (collectively with Tenant, the "**Tenant Parties**"), and in either case results in any contamination of any part of the Project or any adjacent property that is in violation of any applicable Environmental Law or that requires the performance of any Clean-up (as defined below) pursuant to any Environmental Law, in addition to notifying Landlord as specified above, Tenant, at its own sole cost and expense, shall (i)timely comply with any and all reporting requirements imposed pursuant to any and all Environmental Laws, (ii) provide a written certification to Landlord indicating that Tenant has complied with all applicable reporting requirements, (iii) take any and all necessary investigation, corrective and remedial action in accordance with any and all applicable Environmental Laws, utilizing an environmental consultant reasonably approved by Landlord, all in accordance with the provisions and requirements of this Section 5.3, including Section 5.3.4, and (iv) take any such additional investigative, remedial and corrective actions as Landlord shall in its reasonable discretion deem necessary such that the Project is remediated to the condition existing prior to such Release.

5.3.1.6 **Indemnification**.

5.3.1.6.1 **In General**. Without limiting in any way Tenant's obligations under any other provision of this Lease, Tenant shall be solely responsible for and shall protect, defend, indemnify and hold the Landlord Parties harmless from and against any and all claims, judgments, losses, damages, costs, expenses, penalties, enforcement actions, taxes, fines, remedial actions, liabilities (including actual and reasonable attorneys' fees, litigation, arbitration and administrative proceeding costs, expert and consultant fees and laboratory costs) including consequential damages and sums paid in settlement of claims, that arise during or after the Lease Term in whole or in part, foreseeable or unforeseeable, arising out of or attributable to (a) the presence, use, generation, manufacture, treatment, handling, refining, production, processing, storage, exacerbation or Release of Hazardous Materials in, on, under, at or about the Premises by Tenant or any other Tenant Party, and/or (b) a breach by Tenant of its obligations under this Section 5.3. This indemnification of the Landlord Parties includes reasonable costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work or any other response action required by any federal, state or local governmental agency or political subdivision because of Hazardous Material present in the soil, soil vapor, or ground water at, on or under, or any indoor air in, the Building based upon the circumstances identified in the first sentence of this Section 5.3.1.6.1.

5.3.1.6.2 **Limitations**. Notwithstanding anything to the contrary, Tenant's indemnity of Landlord as set forth in Section 5.3.1.6.1, above, shall not be applicable to claims based upon Non-Tenant Contamination, except to the extent that the acts or omissions of Tenant or any other Tenant Party caused, contributed to or exacerbated the subject claim.

5.3.1.7 **Compliance with Environmental Laws**. Without limiting the generality of Tenant's obligation to comply with Legal Requirements as otherwise provided in this Lease, Tenant shall, at its sole cost and expense, comply with all Environmental Laws, any rules, requirements and safety procedures of governmental authorities and (to the extent communicated to Tenant) any insurer of the Building or the Premises with respect to Tenant's use, storage and disposal of any Hazardous Materials. Tenant shall obtain and maintain any and all necessary permits, licenses, certifications and approvals appropriate or required for the use, handling, storage, and disposal of any Hazardous Materials used, stored, generated, transported, handled, blended, or recycled by Tenant on the Premises. Landlord shall have a continuing right, without obligation, to require Tenant to obtain, and to review and inspect any and all such permits, licenses, certifications and approvals, together with copies of any and all Hazardous Materials management plans and programs, any and all Hazardous Materials risk management and pollution prevention programs, and any and all Hazardous Materials emergency response and employee training programs respecting Tenant's use of Hazardous Materials. Upon reasonable request of Landlord, Tenant shall deliver to Landlord a narrative description explaining the nature and scope of Tenant's activities involving Hazardous Materials and showing to Landlord's reasonable satisfaction compliance with all Environmental Laws and the terms of this Lease.

5.3.2 **Assurance of Performance**.

5.3.2.1 **Environmental Assessments In General**. Landlord may, but shall not be required to, engage from time to time such contractors as Landlord determines to be appropriate to perform environmental assessments of a scope reasonably determined by Landlord (an "**Environmental Assessment**") to ensure Tenant's compliance with the requirements of this Lease with respect to Hazardous Materials.

5.3.2.2 **Costs of Environmental Assessments**. All costs and expenses incurred by Landlord in connection with any Environmental Assessment initially shall be paid by Landlord; provided that if any such Environmental Assessment shows that Tenant has materially failed to comply with the provisions of this Section 5.3, or if any Mortgagee or governmental authority requires any Environmental Assessment as a result of the acts or omissions of Tenant or any other Tenant Party, or if the Environmental Assessment was conducted after and in relation to the occurrence of an Event of Default, then all of the reasonable costs and expenses of such Environmental Assessment shall be reimbursed by Tenant as Additional Rent within thirty (30) days after receipt of written demand therefor. If any such Environmental Assessment shows that Tenant has materially failed to comply with the provisions of this Section 5.3, all reasonable costs incurred by Landlord in connection with Landlord's monitoring of Tenant's compliance with Section 5.3, including Landlord's reasonable attorneys' fees and costs, shall be additional rent and shall be due and payable to Landlord within thirty (30) days after demand therefor.

5.3.2.3 **Information**. Tenant shall provide information as may be reasonably requested by Landlord from time to time concerning Tenant's best knowledge and belief concerning the presence of Hazardous Materials at, in or, on or under the Premises, the Building or the Project. From time to time during the Lease Term, Tenant shall provide Landlord with such evidence of Tenant's compliance with the terms of this Section 5.3 as Landlord may reasonably request, which request shall not be made more frequently than one time per calendar year unless otherwise required by a Mortgagee or a governmental authority or Landlord reasonably suspects that a Release of a Hazardous Material has occurred at or upon the Premises.

5.3.3 **Tenant's Obligations upon Surrender**. At the expiration or earlier termination of the Lease Term, Tenant, at Tenant's sole cost and expense, shall (i) cause all Hazardous Materials to be removed from the Premises and disposed of in accordance with all Environmental Laws and as necessary to allow the Premises to continue to be used for the Permitted Uses; and (ii) cause to be removed all containers installed or used by Tenant or any other Tenant Party to store any Hazardous Materials on the Premises, and cause to be repaired any damage to the Premises caused by such removal.

5.3.4 **Clean-up**.

5.3.4.1 **Environmental Reports; Clean-Up**. If any written report, including any report containing results of any Environmental Assessment (an "**Environmental Report**") shall indicate (i) the presence of any Hazardous Materials as to which Tenant has a removal or remediation obligation under this Section 5.3, and (ii) that as a result of same, the investigation, characterization, monitoring, assessment, repair, closure, remediation, removal, or other clean-up (the "**Clean-up**") of any Hazardous Materials is required, Tenant shall prepare and submit to Landlord within thirty (30) days after receipt of the Environmental Report a comprehensive plan, subject to Landlord's written approval (which approval shall not be unreasonably withheld, conditioned or delayed so long as such actions, in Landlord's reasonable discretion, comply with applicable Environmental Laws and would not reasonably be likely to have more than a de minimis adverse effect on the market value of the Project or on the use of the Project for the Permitted Uses, and, in any event, Landlord shall not withhold its approval of any proposed actions which are required by applicable Environmental Laws), specifying the actions to be taken by Tenant to perform the Clean-up so that the Project is restored to its condition as of the Execution Date. Upon Landlord's approval of the Clean-up plan, Tenant shall, at Tenant's sole cost and expense, without limitation on any rights and remedies of Landlord under this Lease (or on any rights that the Tenant has against third parties), promptly implement such plan with a consultant reasonably acceptable to Landlord ("**Tenant's Consultant**") and proceed to Clean-Up Hazardous Materials in accordance with all Legal Requirements and as required by such plan and this Lease. If, within thirty (30) days after receiving a copy of such Environmental Report, Tenant either (a) fails to complete such Clean-up, or (b) with respect to any Clean-up that cannot reasonably be completed within such thirty-day period, fails to proceed with diligence to prepare the Clean-up plan and complete the Clean-up as promptly as practicable, then Landlord shall have the right, but not the obligation, and without waiving any other rights under this Lease, to carry out any Clean-up recommended by the Environmental Report or required by any governmental authority having jurisdiction over the Premises, and recover all of the reasonable costs and expenses thereof from Tenant as Additional Rent, payable within thirty (30) days after receipt of written demand therefor. Upon completion of such Clean-up, Tenant shall obtain and deliver to Landlord a letter or other written determination from the overseeing governmental authority (or, if there is no such overseeing authority, the environmental consultant responsible for performing the Clean-up) confirming that the Clean-up has been completed in accordance with the terms hereof and that no further response action of any kind is required for the continued use of the Premises for the Permitted Uses ("**Closure Letter**").

5.3.4.2 **No Rent Abatement**. Tenant shall continue to pay all Rent due or accruing under this Lease during any Clean-up, and shall not be entitled to any reduction, offset or deferral of any Base Rent or Additional Rent due or accruing under this Lease during any such Clean-up.

5.3.4.3 **Permit Close Out**. Upon the expiration or earlier termination of this Lease, Tenant shall be obligated to close all permits obtained in connection with Hazardous Materials used, handled, stored, generated, transported, blended, or recycled by any Tenant Party at the Premises in accordance with Legal Requirements.

5.3.4.4 **Failure to Timely Clean-Up**. Should any Clean-up for which Tenant is responsible not be completed, or should Tenant not deliver to Landlord the Closure Letter and any governmental approvals required under Environmental Laws in conjunction with such Clean-up prior to the expiration or earlier termination of this Lease, then Tenant shall be liable to Landlord as a holdover tenant (as more particularly provided in Article 16) until Tenant has fully complied with its obligations under this Section 5.3 and Section 15.3 below.

5.3.5 **Confidentiality**. Unless compelled to do so by Legal Requirements, Tenant agrees that Tenant shall not disclose, discuss, disseminate or copy any information, data, findings, communications, conclusions and/or reports regarding the environmental condition of the Premises to any Person (other than Tenant's consultants, attorneys, property managers and employees that have a need to know such information), including any governmental authority, without the prior written consent of Landlord. In the event Tenant reasonably believes that disclosure is compelled by Legal Requirements, it shall provide Landlord ten (10) days' advance notice of disclosure of confidential information so that Landlord may attempt to obtain a protective order. Tenant may additionally release such information to bona fide prospective purchasers or lenders, subject to any such parties' prior written agreement to be bound by the terms of this Section 5.3.5.

5.3.6 **Copies of Environmental Reports**. Within thirty (30) days of receipt thereof, Tenant shall provide Landlord with a copy of any and all final environmental assessments, audits, studies and reports regarding Tenant's activities with respect to Hazardous Materials at the Premises. Tenant shall be obligated to provide Landlord with a copy of such materials without regard to whether such materials are generated by Tenant or prepared for Tenant, or how Tenant comes into possession of such materials.

5.3.7 **Signs, Response Plans, Etc**. Tenant shall be responsible for posting on the Premises any signs required in connection with Tenant's operations under applicable Environmental Laws. Tenant shall also complete and file any business response plans or inventories required by any Legal Requirements applicable to Tenant's operations. Tenant shall concurrently file a copy of any such business response plan or inventory with Landlord.

5.3.8 **Non-Tenant Contamination**. Notwithstanding any provision of this Lease to the contrary, Tenant shall not be liable for, nor have any obligation or responsibility under this Lease or otherwise for, any Non-Tenant Contamination (except as set forth in Section 4.2.4(o) above). For purposes of this Lease, "**Non-Tenant Contamination**" shall mean any Hazardous Material that was present at, on, in, under, or around the Building (including without limitation the Premises) on or before the Lease Commencement Date or which was introduced by any Landlord Party or by any party other than the Tenant Parties; provided, however, Non-Tenant Contamination shall not be deemed to include any Hazardous Materials to the extent contributed to or exacerbated by any of the Tenant Parties, it being understood and agreed that Tenant shall be responsible for the costs associated with or resulting from such contribution or exacerbation.

5.3.9 **Survival**. Each covenant, agreement, representation, warranty and indemnification made by Tenant set forth in this Section 5.3 shall survive the expiration or earlier termination of this Lease and shall remain effective until all of Tenant's obligations under this Section 5.3 have been completely performed and satisfied.

5.4 **Chemical Safety Program**.

5.4.1 Tenant shall establish and maintain a chemical safety program administered by a licensed, qualified individual and in accordance with the requirements of Environmental Laws and any applicable governmental authority, including the Occupational Safety and Health Administration and the Colorado Department of Public Health and Environment (collectively, the "**Authority**"). Tenant shall be solely responsible for all costs incurred in connection with such chemical safety program, and Tenant shall provide Landlord with such non-privileged documentation as Landlord may reasonably require evidencing Tenant's compliance with the requirements of (i) the Authority and any other applicable governmental authority with respect to such chemical safety program, and (ii) this Section 5.4.1.

5.4.2 Tenant shall obtain and maintain any permit required by Legal Requirements (including any permit required by the Authority) with respect to the operation of acid neutralization system and tank serving the Premises, if any (the "**Acid Neutralization System**"). Tenant shall operate and maintain any Acid Neutralization System in good order, condition and repair and in compliance with Legal Requirements. Tenant shall not introduce anything into the Acid Neutralization System, if any, (i) in violation of the terms of any permit issued by the Authority concerning the Acid Neutralization System (the "**Authority Permit**"), (ii) in violation of Legal Requirements, or (iii) that would interfere with the proper functioning of the Acid Neutralization System.

5.5 **Biohazard and Hazardous Waste Removal**. Tenant shall be responsible, at its sole cost and expense, for Hazardous Material and other biohazard disposal services for the Premises. Such services shall be performed by contractors reasonably acceptable to Landlord and on a sufficient basis to ensure that the Premises are at all times kept neat, clean and free of Hazardous Materials and biohazards except in appropriate, specially marked containers as required by Legal Requirements and prudent environmental practice. In addition, if any Legal Requirements or the trash removal company requires that any substances be disposed of separately from ordinary trash, Tenant shall (a) make arrangements at Tenant's expense for such disposal directly with a qualified and licensed disposal company at a lawful disposal site, and (b) provide Landlord with reasonably detailed information relating thereto upon Landlord's request.

5.6 **No Vivarium**. Notwithstanding any other provision of this Lease, Tenant shall not use the Premises, or any part thereof, or suffer or permit the use of the Premises or any part thereof by any of the Tenant Parties, as a vivarium.

6. SERVICES AND UTILITIES

6.1 **In General**. Landlord shall provide the following services on all days (unless otherwise stated below) during the Lease Term.

6.1.1 Consistent with the Matrix, but subject to limitations imposed by all governmental rules, regulations and guidelines applicable thereto, Landlord shall provide to the interior Common Areas and uniformly to the Premises, on a 24/7 basis, (a) heat during the normal heating season, (b) air conditioning during the normal cooling season (provided, however, that Landlord will use commercially reasonable efforts to provide air conditioning outside the normal cooling season as reasonably requested by Tenant), and (c) general exhaust/ventilation (collectively, "**HVAC**"). It is expressly acknowledged and agreed that Tenant shall be solely responsible for (and shall comply with Article 8 below with respect to) (i) cooling any computer equipment, meeting rooms, data center, server rooms and any other similar areas located in the Premises beyond the standard level of cooling provided, (ii) additional cooling needed for (A) equipment or business machines, and/or (B) laboratory and research and development uses, and (iii) specialty exhaust, including exhaust for H2 rooms, chemical storage rooms which require Class I, Division II classification, if any, and any other special rooms or special Tenant equipment. All costs incurred by Landlord to provide HVAC service to the Premises from and after the Lease Commencement Date shall be reimbursed by Tenant to Landlord as additional rent. Such costs shall include the cost of all utility services used in the operation of the HVAC system(s) providing HVAC service to the Premises and all costs incurred by Landlord in the operation, maintenance, and repair of such systems.

6.1.2 Landlord shall provide electrical capacity consistent with the Matrix, and the connected electrical load of Tenant's lighting fixtures and the incidental use equipment shall not, in the aggregate, exceed the connected electrical loads set forth in the Matrix. Tenant will design Tenant's electrical system serving any equipment producing nonlinear electrical loads to accommodate such nonlinear electrical loads, including oversizing neutral conductors, derating transformers and/or providing power-line filters. Engineering plans shall include a calculation of Tenant's fully connected electrical design load with and without demand factors and shall indicate the number of watts of unmetered and submetered loads. Tenant shall bear the cost of replacement of lamps, starters and ballasts for all lighting fixtures within the Premises. To the extent electricity is separately sub-metered, then Tenant shall make any deposit (including such letters of credit) as the electric company or provider shall require, Tenant shall maintain such metering equipment in good operating condition and repair, and Tenant shall pay to Landlord the cost of electricity furnished to the Premises and/or any equipment exclusively serving the Premises from and after the Lease Commencement Date based on such sub-meter, and reimbursement for any penalties for usage or other surcharges imposed by any utility company. To the extent electricity is not separately sub-metered, then the cost of electricity furnished to the Premises and/or any equipment exclusively serving the Premises from and after the Lease Commencement Date shall be equitably allocated by Landlord on a basis consistent with commercially reasonable property management practices. Within thirty (30)days after receipt of Landlord's statement of apportionment or statement setting forth the charges payable by Tenant, Tenant shall pay to Landlord, as Additional Rent (and not as a Direct Expense), the cost of such electrical services so apportioned or so provided by Landlord. Notwithstanding anything to the contrary set forth herein, to the extent the Premises generates electricity demand on a shared resource (e.g. electricity for the central plant), the cost of such electricity shall be allocated to Tenant on a pro rata basis or other reasonable basis consistent with commercial reasonable property management practices.

6.1.3 Landlord shall provide water and sewer service capacities consistent with the Matrix at all times during the Lease Term. Commencing on the Lease Commencement Date, Tenant shall pay all water and sewer charges for water furnished to the Premises and/or any equipment exclusively serving the Premises, as additional rent, as reasonably estimated by Landlord. Such estimated payments shall be billed to Tenant no more frequently than monthly and shall be payable within 30 days following invoice.

6.1.4 If Tenant desires natural gas service to the Premises, Tenant shall install a submeter in accordance with Article 8 below. Commencing on the Lease Commencement Date, Tenant shall pay all charges for natural gas service furnished to the Premises and/or any equipment exclusively serving the Premises, as additional rent as provided hereafter.

6.1.5 If any portion of the Premises is located above the first floor of the Building, Landlord shall provide nonexclusive, non-attended automatic passenger elevator service from 7:00 A.M. to 6:00 P.M. Monday through Friday excluding Holidays (collectively, the "**Building Hours**"), and shall have one elevator available at all other times (including on the date of observation of New Year's Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day and, at Landlord's discretion, other locally or nationally recognized holidays (collectively, the "**Holidays**")), except in the event of emergency.

6.1.6 On all weekdays other than Holidays, Landlord shall provide janitorial services for the Common Areas in a manner consistent with First Class Life Sciences Projects

6.1.7 Landlord shall have no obligation to provide any other services, it being understood and agreed that Tenant shall, subject to the Building's rules and regulations governing the same, obtain and pay for any and all other services consumed in and/or furnished to the Premises, together with all taxes, penalties, surcharges and maintenance charges pertaining thereto.

6.2 **Interruption of Use**.

6.2.1 When necessary by reason of accident or emergency, or for repairs, alterations, replacements or improvements which in the reasonable judgment of Landlord are desirable or necessary to be made, Landlord reserves the right, upon no less than twenty-four (24) hours' notice (except no notice shall be required in the event of an emergency), to interrupt, curtail, or stop (i) the furnishing of any services hereunder, including heat, air conditioning, ventilation, and/or water, and (ii) the operation of the life-safety, plumbing and/or electric systems. Landlord shall exercise reasonable diligence to eliminate the cause of any such interruption, curtailment, stoppage or suspension, but, subject to Section 6.2.2 below, there shall be no diminution or abatement of Rent or other compensation due from Landlord to Tenant hereunder, nor shall this Lease be affected or any of Tenant's obligations hereunder reduced, and Landlord shall have no responsibility or liability for any such interruption, curtailment, stoppage, or suspension of services or systems. Furthermore, Tenant agrees that Landlord shall not be liable for damages, by abatement of Rent or otherwise except as set forth in Section 6.2.2 below, for failure to furnish or delay in furnishing any service, or for any diminution in the quality or quantity thereof, when such failure or delay or diminution is occasioned, in whole or in part, by breakage, repairs, replacements, or improvements, by any strike, lockout or other labor trouble, by inability to secure electricity, gas, water, or other fuel at the Building or Project after reasonable effort to do so, by any riot or other dangerous condition, emergency, accident or casualty whatsoever, by act or default of Tenant or other parties, or by any other cause; and such failures or delays or diminution shall never be deemed to constitute an eviction or disturbance of Tenant's use and possession of the Premises or relieve Tenant from paying Rent or performing any of its obligations under this Lease. Without limiting the foregoing, Landlord shall not be liable under any circumstances for a loss of, or injury to, property or for injury to, or interference with, Tenant's business, including loss of profits, however occurring, through or in connection with or incidental to a failure to furnish any of the services or utilities as set forth in this Article 6.

6.2.2 Notwithstanding anything to the contrary set forth herein, if (i) a stoppage of an Essential Service (as defined below) to the Premises shall occur and such stoppage is due solely to the gross negligence or willful misconduct of Landlord or if such stoppage is due to a matter beyond the Landlord's reasonable control but such Essential Service is not restored solely due to the gross negligence or willful misconduct of Landlord (any such stoppage of an Essential Service being hereinafter referred to as a "**Service Interruption**"), and (ii) such Service Interruption continues for more than five (5) consecutive business days after Landlord shall have received written notice thereof from Tenant, and (iii) as a result of such Service Interruption, the conduct of Tenant's normal operations in the Premises are materially and adversely affected, then there shall be an abatement of one day's Base Rent for each day during which such Service Interruption continues after such five (5) business day period; provided, however, that if any part of the Premises is reasonably useable for Tenant's normal business operations or if Tenant conducts all or any part of its operations in any portion of the Premises notwithstanding such Service Interruption, then the amount of each daily abatement of Base Rent shall only be proportionate to the nature and extent of the interruption of Tenant's normal operations or ability to use the Premises. The rights granted to Tenant under this paragraph shall be Tenant's sole and exclusive remedy resulting from a failure of Landlord to provide services, and Landlord shall not otherwise be liable for any loss or damage suffered or sustained by Tenant resulting from any failure or cessation of services. For purposes hereof, the term "**Essential Services**" shall mean the following services: HVAC service, water, sewer and electricity.

6.3 **Energy Performance Disclosure Information**. Within ten (10) business days after Landlord's request from time to time (but not more than once in any calendar year unless requested in connection with any Legal Requirement or any financing or transfer of any of Landlord's interest in the Premises), Tenant shall provide Landlord with reasonably detailed information regarding Tenant's utility usage in the Premises. Tenant acknowledges and agrees that (i) Landlord makes no representation or warranty regarding the energy performance of the Building, and (ii) the energy performance of the Building may vary depending on future occupancy and/or use of the Building, but Landlord agrees that no such variations based on future occupancy and/or use of the Building shall materially adversely affect Tenant's use of the Premises for the Permitted Use. Tenant's acknowledgment of the AS-IS condition of the Premises pursuant to the terms of this Lease shall be deemed to include the current energy performance of the Building. The terms of this Section 6.3 shall survive the expiration or earlier termination of this Lease.

6.4 **Recycling; Energy Conservation**. Landlord may institute upon written notice to Tenant such policies, programs and measures as may be necessary, required, or expedient for the (a) composting and/or the recycling of paper, products, plastic, tin and other materials, and/or (b) conservation and/or preservation of energy or energy services and/or the resiliency of the Building (with respect to flooding or otherwise), including such policies, programs and measures as may be necessary to achieve and/or maintain any LEED or similar certification or as necessary or required to comply with Legal Requirements or the other provisions of this Lease. Upon receipt of such notice, Tenant shall comply with such policies, programs and measures and reasonable reporting requirements relating thereto.

7. **REPAIRS AND MAINTENANCE**

7.1 **Tenant Repair Obligations**. Except to the extent covered by the warranties described in Section 2(k) of the Tenant Work Letter, Tenant shall, at Tenant's own expense, keep the Premises (including all improvements, fixtures, furnishings, flooring, electronic, phone and data cabling and related equipment, electrical wiring, non-structural walls, interior windows, floor coverings, doors and door frames and plate glass therein) neat and clean and free of insects, rodents, vermin, other pests and Trash and in good order, repair and condition at all times during the Lease Term. In addition, Tenant shall, at Tenant's own expense, but under the supervision and subject to the prior approval of Landlord, and within any reasonable period of time specified by Landlord, promptly and adequately repair all damage to the Premises and replace or repair all damaged, broken, or worn fixtures and appurtenances, except for damage caused by ordinary wear and tear or beyond the reasonable control of Tenant; provided however, that, Landlord shall have the exclusive right, at Landlord's option, but not the obligation, to make such repairs and replacements, and Tenant shall pay to Landlord the cost thereof, including Landlord's standard fee for its involvement with such repairs and replacements (to be uniformly established for the Building at a commercially reasonable level), promptly upon being billed for same. Furthermore, except to the extent covered by the warranties described in Section 2(k) of the Tenant Work Letter, Tenant shall be solely responsible, at Tenant's sole cost and expense, for the proper maintenance and repair of all building systems, sanitary, electrical, heating, air conditioning, plumbing, security or other systems and of all equipment and appliances to the extent installed and/or operated by Tenant and/or exclusively serving the Premises (provided that Landlord shall have the right to repair the same at Tenant's cost). Tenant agrees to provide regular maintenance by contract with a reputable qualified service contractor for the components of the electrical, plumbing and life-safety equipment exclusively servicing the Premises (if any) and for any heating, air-conditioning and/or ventilation equipment installed by (or at the request of) Tenant or any other Tenant Party after the Lease Commencement Date. Such maintenance contract and contractor shall be subject to Landlord's reasonable approval. Tenant, annually (or more often at Landlord's request, but in no event more often than quarterly unless requested in connection with a financing or sale), shall at reasonable intervals provide Landlord with copies of such contracts and maintenance and repair records and/or reports. Landlord may, but shall not be required to, enter the Premises pursuant to the terms of Article 27, below, to make such repairs, alterations, improvements or additions to the Premises or to the Project or to any equipment located in the Project as Landlord shall desire or deem necessary or as Landlord may be required to do by governmental or quasi-governmental authority or court order or decree.

7.2 **Landlord Repair Obligations**. Notwithstanding the foregoing, Landlord shall be responsible for repairs and replacement as necessary to the exterior walls (except the inner surfaces thereof), exterior doors and door frames, exterior windows and window frames, waterproofing of the Building envelope, foundation and roof (including roof membrane, gutters, flashings, and downspouts, if any) of the Building, utility connections to the Building, the structural portions of the floors of the Building (the "**Building Structure**"), the base Building plumbing, sewer, drainage, electrical, fire protection, elevator, life safety, heating, ventilation and air-conditioning systems of the Building to the extent not exclusively serving the Premises or any other leasable space in the Building (the "**Building Systems**" and together with the Building Structure, the "**Base Building**"), and the Common Areas; provided, however, that if such repairs are due to the negligence or willful misconduct of any Tenant Party, Landlord shall nevertheless make such repairs at Tenant's expense, unless covered by Landlord's insurance, in which case Landlord shall make such repairs and Tenant shall pay to Landlord an amount equal to Landlord's deductible. Subject to the terms of Article 27, below, Landlord may, but shall not be required to, enter the Premises at all reasonable times and upon reasonable prior notice to make such repairs, alterations, improvements or additions to the Premises or to the Project or to any equipment located in the Project as Landlord shall desire or deem necessary or as Landlord may be required to do by governmental or quasi-governmental authority or court order or decree. All costs incurred by Landlord under this Section 7.2 shall be included in Operating Expenses as provided in Section 4.2 above.

7.3 **Pipes, Ducts and Conduits**. Tenant shall permit Landlord to erect, use, maintain and relocate pipes, ducts and conduits in and through the Premises, provided the same do not materially reduce the floor area or materially adversely affect the appearance thereof (and if Tenant elects an open ceiling treatment, provided that Landlord paints such items to match the color of Tenant's open ceiling, Tenant shall have no right to object thereto on appearance grounds).

7.4 **Accidents**. Tenant shall give to Landlord prompt notice of any accident or any defective condition in the Premises including the sanitary, electrical, ventilation, heating and air conditioning or other systems located in, or passing through, the Premises.

7.5 **Floor Load--Heavy Equipment**. Tenant shall not place a load upon any floor of the Premises exceeding the floor load per square foot of area which such floor was designed to carry (as set forth in the Matrix) and which is allowed by Legal Requirements. Landlord reserves the right to prescribe the weight and position of all safes, heavy machinery, heavy equipment, freight, bulky matter or fixtures (collectively, "**Heavy Equipment**"), which shall be placed so as to distribute the weight. Heavy 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 Heavy Equipment into or out of the Building without giving Landlord prior written notice thereof and observing all of Landlord's rules and regulations with respect to the same. If such Heavy Equipment requires special handling, Tenant agrees to employ only persons holding a Master Rigger's License to do said work, and that all work in connection therewith shall comply with Legal Requirements. Any such moving shall be at the sole risk and hazard of Tenant and Tenant will defend, indemnify and save Landlord, its partners and subpartners, and all of their respective officers, servants, employees, lenders, agents (including its property manager), managers and contractors (collectively with Landlord, the "**Landlord Parties**") harmless from and against any and all claims, damages, judgments, losses, penalties, costs, expenses and fees (including reasonable legal fees) (collectively, "**Claims**") resulting directly or indirectly from such moving. Proper placement of all Heavy Equipment in the Premises shall be Tenant's responsibility.

7.6 **Premises Cleaning and Pest Control**.

7.6.1 Tenant shall be responsible, at its sole cost and expense, for janitorial and trash removal services and other biohazard disposal services for the Premises. Such services shall be performed by licensed (where required by law or governmental regulation), insured and qualified contractors approved in advance, in writing, by Landlord (which approval shall not be unreasonably withheld, delayed or conditioned) and on a sufficient basis to ensure that the Premises are at all times kept neat and clean.

7.6.2 Tenant, at Tenant's sole cost and expense, shall cause the Premises to be exterminated on a monthly basis to Landlord's reasonable satisfaction and shall cause all portions of the Premises used for the storage, preparation, service or consumption of food or beverages to be cleaned daily in a manner reasonably satisfactory to Landlord, and to be treated against infestation by insects, rodents and other vermin and pests whenever there is evidence of any infestation. Tenant shall not permit any person to enter the Premises for the purpose of providing such extermination services, unless such persons have been approved by Landlord. If requested by Landlord, Tenant shall, at Tenant's sole cost and expense, store any refuse generated in the Premises by the consumption of food or beverages in a cold box or similar facility.

8. **ADDITIONS AND ALTERATIONS**

8.1 **Landlord's Consent to Alterations**.

8.1.1 Tenant may not make any improvements, alterations, additions or changes to the Premises or any mechanical, plumbing or HVAC facilities or systems pertaining to the Premises (collectively, the "**Alterations**") without first procuring the prior written consent of Landlord to such Alterations, which consent shall be requested by Tenant not less than thirty (30) days prior to the commencement thereof and which request shall be accompanied by written plans and specifications, bid proposals, certified stamped engineering drawings and calculations by Tenant's engineer of record or architect of record (which drawings shall include any connections to the Building's structural system, modifications to the Building's envelope, non-structural penetrations in slabs or walls, and modifications or tie-ins to life safety systems), code compliance certifications, work contracts, requests for laydown areas and such other information concerning the nature and cost of the Alterations as Landlord may reasonably request. Landlord reserves the right to require that Tenant use Landlord's preferred vendor(s) for any Alterations that involve roof penetrations, alarm tie-ins, sprinklers, fire alarm and other life safety equipment. Tenant shall not make any amendments or additions to plans and specifications approved by Landlord without Landlord's prior written consent. Tenant shall be responsible for all elements of the design of Tenant's plans (including compliance with Legal Requirements, functionality of design, the structural integrity of the design, the configuration of the Premises and the placement of Tenant's furniture, appliances and equipment), and Landlord's approval of Tenant's plans shall in no event relieve Tenant of the responsibility for such design. Landlord shall have no liability or responsibility for any claim, injury or damage alleged to have been caused by the particular materials (whether building standard or non-building standard), appliances or equipment selected by Tenant in connection with any work performed by or on behalf of Tenant.

8.1.2 Landlord may withhold its consent in its sole discretion (i) to any Alteration to or affecting the fixed lab benches, fume hoods, roof and/or building systems, (ii) with respect to matters of aesthetics relating to Alterations to or affecting the exterior of the Premises, (iii) to any Alteration affecting the Building structure, (iv) to any Alteration changing the rentable square footage of the Premises, and /or (v) to any Alteration that would disturb any asbestos-containing material in the Building ("**Restricted Alterations**"). Subject to the foregoing, Landlord's approval of non-structural Alterations shall not be unreasonably withheld, conditioned or delayed.

8.1.3 Notwithstanding the foregoing, upon at least ten (10) business days' reasonably detailed notice to Landlord (including such information as Landlord may reasonably request), but without Landlord's prior consent, Tenant shall be permitted to make non-structural Alterations (a) that are purely decorative in nature, such as painting, wall coverings and floor coverings, and/or (b) that are not Restricted Alterations if such Alterations (i) do not adversely affect the Building Systems, (ii) are not visible from the exterior of the Premises, (iii) cost less than $75,000 for a particular job of work (and less than $150,000 in the aggregate per calendar year), (iv) are consistent with the quality and character of the Building, (v) are in compliance with Legal Requirements, (vi) do not trigger any legal requirement to perform work outside the Premises, and (vii) do not adversely affect any part of the Building outside the Premises (each, a "**Permitted Alteration**").

8.2 **Manner of Construction**. Tenant shall construct such Alterations and perform such repairs at Tenant's sole cost and expense, in such manner and at such times as Landlord may from time to time reasonably designate, in a good and workmanlike manner, employing materials of good quality, in conformance with any and all Legal Requirements and pursuant to a valid building permit, issued by the municipality in which the Building is located (or other applicable governmental authority), all in conformance with Landlord's construction rules and regulations; provided, however, that prior to commencing to construct any Alteration, Tenant shall meet with Landlord to discuss Landlord's design parameters and code compliance issues. To the extent Landlord permits Tenant to perform any Alterations outside the Premises and/or affecting the Base Building, or if required by Legal Requirements, (i) Tenant shall give Landlord at least two (2) business days' prior written notice of any proposed Alterations outside the Premises and/or affecting the Building systems (the "**Supervised Work**"), and (ii) Tenant shall reimburse Landlord, within thirty (30) days after demand therefor, for the reasonable cost (determined with reference to local market arms-length cost of such services) of Landlord's supervisory personnel overseeing the Supervised Work, if any. Alterations shall be performed in such manner so as not to obstruct access to the Project or any portion thereof, by any other tenant of the Project, and so as not to obstruct the business of Landlord or other tenants in the Project Tenant shall not use (and upon notice from Landlord shall cease using) contractors, services, workmen, labor, materials or equipment that, in Landlord's reasonable judgment, would disturb labor harmony with the workforce or trades engaged in performing other work, labor or services in or about the Building or the Common Areas. If Landlord reasonably determines that, in connection with Alterations by any Tenant Party, (A) any Building System (including the fire alarm system) should be or is required to be shut down, and/or (B) Building System cleaning or other maintenance or repair is required (including the changing of Building System filters pre- or post-construction), Tenant shall reimburse Landlord for the reasonable out-of-pocket costs incurred by Landlord in connection therewith. Upon completion of any Alterations (or repairs), Tenant shall (a) deliver to Landlord final cost affidavits and final lien waivers (in form reasonably approved by Landlord) from all contractors, subcontractors and materialmen who performed such work, and (b) deliver to the Project construction manager a reproducible copy of the "as built" drawings of the Alterations as well as all permits, approvals and other documents issued by any governmental agency in connection with the Alterations.

8.3 **Payment for Improvements**. With respect to payments to be made to Tenant's contractors for any Alterations, Tenant shall (i) comply with Landlord's reasonable requirements for final lien releases and waivers in connection with Tenant's payment for work to contractors, and (ii) cause Tenant's contractor to sign Landlord's standard contractor's rules and regulations. In addition, in connection with all Alterations, Tenant shall pay Landlord an oversight fee equal to three percent (3%) of the hard costs of such work, and shall reimburse Landlord for Landlord's reasonable, actual, out-of-pocket costs and expenses actually incurred in connection with such work.

8.4 **Construction Insurance**. In addition to the requirements of Article 10 of this Lease, in the event that any Tenant Party makes any Alterations, prior to the commencement of such Alterations, Tenant shall provide Landlord with evidence that Tenant carries "Builder's Risk" insurance against loss or damage by fire, water damage, vandalism and malicious mischief, and such other risks as are customarily covered by so-called "**special form**" or "**special cause**" of loss property/ builders risk coverage or its equivalent in an amount approved by Landlord covering the construction of such Alterations, and such other insurance as Landlord may reasonably require, it being understood and agreed that all of such Alterations shall be insured by Tenant pursuant to Article 10 of this Lease immediately upon completion thereof. In addition, Tenant's contractors and subcontractors shall be required to carry (and certificates evidencing such coverage shall be provide to Landlord in advance) (i) Commercial General Liability Insurance in an amount approved by Landlord, with Landlord, Landlord's mortgagee, Landlord's property manager, Landlord's project manager and others designated by Landlord named as additional insureds in an amount approved by Landlord, and otherwise in accordance with the requirements of Article 10 of this Lease, and (ii) workers compensation insurance with a waiver of subrogation in favor of Landlord. Landlord may, in its discretion, require Tenant to obtain a lien and completion bond or some alternate form of security satisfactory to Landlord in an amount sufficient to ensure the lien-free completion of such Alterations and naming Landlord as a co-obligee.

8.5 **Landlord's Property**. All Alterations, improvements, and/or appurtenances which may be installed or placed in or about the Premises, from time to time, shall be at the sole cost of Tenant and shall be and become the property of Landlord and, except as set forth below, remain in place at the Premises following the expiration or earlier termination of this Lease. Notwithstanding the foregoing, Landlord may, by written notice to Tenant at the time of Landlord's approval of the Alterations in question (or within thirty (30) days after receipt of plans and specifications for any Permitted Alterations), require Tenant, at Tenant's expense, to remove any Alterations and/or improvements and/or systems and equipment within the Premises and to repair any damage to the Premises and Building caused by such removal and return the affected portion of the Premises to a building standard tenant improved condition as determined by Landlord. If Tenant fails to complete such removal and/or to repair any damage caused by the removal of any Alterations and/or improvements and/or systems and equipment in the Premises and return the affected portion of the Premises to a building standard tenant improved condition as reasonably determined by Landlord, Landlord may do so and may charge the cost thereof to Tenant. Tenant hereby protects, defends, indemnifies and holds Landlord harmless from any and all Claims in any manner relating to the installation, placement, removal or financing of any such Alterations, improvements, fixtures and/or equipment in, on or about the Premises, which obligations of Tenant shall survive the expiration or earlier termination of this Lease.

9. COVENANT AGAINST LIENS

Tenant shall keep the Project and Premises free from any liens or encumbrances arising out of the work performed, materials furnished to or obligations incurred by or on behalf of any Tenant Party, and shall protect, defend, indemnify and hold Landlord harmless from and against any Claims arising out of same or in connection therewith. Tenant shall give Landlord notice at least twenty (20) days prior to the commencement of any such work on the Premises (or such additional time as may be necessary under Legal Requirements) to afford Landlord the opportunity of posting and recording appropriate notices of non-responsibility (to the extent applicable pursuant to then Legal Requirements). Tenant shall remove any such lien or encumbrance by bond or otherwise within ten (10) business days after the filing thereof, and if Tenant shall fail to do so, Landlord may pay the amount necessary to remove such lien or encumbrance, without being responsible for investigating the validity thereof. The amount so paid shall be deemed Additional Rent under this Lease payable upon demand, without limitation as to other remedies available to Landlord under this Lease. Nothing contained in this Lease shall authorize Tenant to do any act which shall subject Landlord's title to the Building or Premises to any liens or encumbrances whether claimed by operation of law or express or implied contract. Any claim to a lien or encumbrance upon the Building or Premises arising in connection with any such work or respecting the Premises not performed by or at the request of Landlord shall be null and void, or at Landlord's option shall attach only against Tenant's interest in the Premises and shall in all respects be subordinate to Landlord's title to the Project, Building and Premises.

10. **INSURANCE**

10.1 **Indemnification and Waiver**.

10.1.1 To the maximum extent permitted by Legal Requirements, Tenant hereby assumes all risk of damage to property or injury to persons in, upon or about the Premises from any cause whatsoever (including any personal injuries resulting from a slip and fall in, upon or about the Premises) and agrees that the Landlord Parties shall not be liable for, and are hereby released from any responsibility for, any damage either to person or property or resulting from the loss of use thereof, which damage is sustained by Tenant or by other persons claiming through Tenant.

10.1.2 Tenant shall indemnify, defend, protect, and hold harmless the Landlord Parties from any and all Claims incurred in connection with or arising from any cause in, on or about the Premises (including a slip and fall), any acts, omissions or negligence of Tenant or of any person claiming by, through or under Tenant, or of the contractors, agents, servants, employees, invitees, guests or licensees of Tenant or any such person, in, on or about the Project or any breach of the terms of this Lease, either prior to, during, or after the expiration of the Lease Term, provided that the terms of the foregoing indemnity shall not apply if and from the time that a final adjudication has resulted in a finding of willful misconduct of Landlord. Should Landlord be named as a defendant in any suit brought against Tenant in connection with or arising out of Tenant's occupancy of the Premises, Tenant shall pay to Landlord its costs and expenses incurred in such suit, including its actual professional fees such as reasonable appraisers', accountants' and attorneys' fees. Tenant shall require its subtenants and any other occupants of the Premises to provide similar indemnities in favor of the Landlord Parties in a form acceptable to Landlord. The provisions of this Section 10.1 shall survive the expiration or sooner termination of this Lease with respect to any claims or liability arising in connection with any event occurring prior to such expiration or termination.

10.2 **Tenant's Compliance With Landlord's Property Insurance**. Tenant shall, at Tenant's expense, comply with all insurance company requirements pertaining to the use of the Premises. If Tenant's conduct or use of the Premises causes any increase in the premium for such insurance policies then Tenant shall reimburse Landlord for any such increase. Tenant, at Tenant's expense, shall comply with all rules, orders, regulations or requirements of the American Insurance Association (formerly the National Board of Fire Underwriters) and with any similar body. Tenant shall also provide Landlord and Landlord's insurer(s) with such information regarding the use of the Premises and any damage to the Premises as they may require in connection with the placement of insurance for the Premises or the adjusting of any losses to the Premises.

10.3 **Tenant's Insurance**. Tenant shall maintain the following coverages in the following amounts. Landlord makes no representation or warranty to Tenant that the amount of insurance required to be carried by Tenant under the terms of this Lease is adequate to fully protect Tenant's interests. Tenant is encouraged to evaluate its insurance needs and obtain whatever additional types or amounts of insurance that it may deem desirable or appropriate.

10.3.1 Commercial General Liability Insurance on an occurrence form covering the insured against claims of bodily injury, personal injury and property damage (including loss of use thereof) arising out of Tenant's operations, and contractual liabilities (covering the performance by Tenant of its indemnity agreements) including a Broad Form endorsement covering the insuring provisions of this Lease and the performance by Tenant of the indemnity agreements set forth in Section 10.1 of this Lease, and including products and completed operations coverage, for limits of liability on a per location basis of not less than:

Bodily Injury and	$5,000,000 each occurrence
Property Damage Liability	$5,000,000 annual aggregate
Personal Injury Liability	$5,000,000 each occurrence
	$5,000,000 annual aggregate
	0% Insured's participation

10.3.2 Property Insurance covering (i) all office furniture, business and trade fixtures, equipment, free-standing cabinet work, movable partitions, merchandise and all other items of personal property related or arising out of Tenant's leasehold estate hereunder, which may be in or upon the Premises or the Building (collectively, "**Tenant's Property**"), (ii) Tenant's Fitout, and (iii) all Alterations and additions to the Premises. Such insurance shall be written on a special cause of loss property insurance form, for the full replacement cost value (subject to reasonable deductible amounts) new without deduction for depreciation of the covered items and in amounts that meet any co-insurance clauses of the policies of insurance and shall include coverage for damage or other loss caused by fire or other peril including fire, vandalism and malicious mischief, theft, water damage of any type, including sprinkler leakage, bursting or stoppage of pipes, and explosion.

10.3.3 Business Income Interruption for one (1) year plus Extra Expense insurance in such amounts as will reimburse Tenant for actual direct or indirect loss of earnings attributable to the risks outlined in Section 10.3.2 above.

10.3.4 Worker's Compensation and Employer's Liability or other similar insurance pursuant to all applicable state and local statutes and regulations. The policy shall include a waiver of subrogation in favor of Landlord, its employees, Lenders and any property manager or partners.

10.3.5 Pollution/Environmental Policy covering the environmental risks of Tenant's business with limits of not less than Two Million Dollars ($2,000,000) per occurrence and not less than Three Million Dollars ($3,000,000) in the aggregate, with respect to environmental contamination and pollution of the Project caused by Tenant.

10.3.6 Medical malpractice insurance in commercially reasonable amounts during such periods, if any, that Tenant engages in the practice of medicine.

10.4 **Form of Policies**. The minimum limits of policies of insurance required of Tenant under this Lease shall in no event limit the liability of Tenant under this Lease. Such insurance shall (i) name Landlord, its subsidiaries and affiliates, Landlord's mortgagee, Landlord's property manager (if any) and any other party Landlord so specifies, as an additional insured or loss payee, as applicable; (ii) be issued by an insurance company having a rating of not less than A-X in Best's Insurance Guide or which is otherwise acceptable to Landlord and licensed to do business in the State of Colorado; (iii) be primary insurance as to all claims thereunder and provide that any insurance carried by Landlord is excess and is non-contributing with any insurance required of Tenant; (iv) be in form and content reasonably acceptable to Landlord; and (v) provide that said insurance shall not be canceled or coverage changed unless thirty (30) days' prior written notice shall have been given to Landlord and any Mortgagee. Tenant shall deliver said policy or policies or certificates thereof to Landlord on or before the Lease Commencement Date and at least thirty (30) days before the expiration dates thereof. Further, Landlord shall have the right, from time to time, to request copies of policies of Tenant's insurance required hereunder, which Tenant shall thereafter provide within ten (10) business days. In the event Tenant shall fail to procure such insurance, or to deliver such policies or certificate, Landlord may, at its option, procure such policies for the account of Tenant, and the cost thereof shall be paid to Landlord within thirty (30) days after delivery to Tenant of bills therefor.

10.5 **Subrogation**. Landlord and Tenant intend that their respective property loss risks shall be borne by reasonable insurance carriers to the extent above provided, and Landlord and Tenant hereby agree to look solely to, and seek recovery only from, their respective insurance carriers in the event of a property or business interruption loss to the extent that such coverage is agreed to be provided hereunder. The parties each hereby waive all rights and claims against each other for such losses and waive all rights of subrogation of their respective insurers, provided such waiver of subrogation shall not affect the right to the insured to recover thereunder. The parties agree that their respective insurance policies are now, or shall be, endorsed such that the waiver of subrogation shall not affect the right of the insured to recover thereunder, so long as no material additional premium is charged therefor.

10.6 **Additional Insurance Obligations**. Tenant shall carry and maintain during the entire Lease Term, at Tenant's sole cost and expense, increased amounts of the insurance required to be carried by Tenant pursuant to this Article 10 and such other reasonable types of insurance coverage and in such reasonable amounts covering the Premises and Tenant's operations therein, as may be reasonably requested by Landlord or Landlord's lender, but in no event in excess of the amounts and types of insurance then being required by landlords of buildings comparable to and in the vicinity of the Building.

11. DAMAGE AND DESTRUCTION

11.1 **Repair of Damage to Premises by Landlord**.

11.1.1 Tenant shall promptly notify Landlord of any damage to the Premises resulting from fire or any other casualty ("**Casualty**"). If the Premises or any Common Areas serving or providing access to the Premises shall be damaged by Casualty, then unless this Lease is terminated in accordance with Section 11.2 below, Landlord shall promptly and diligently, subject to all other terms of this Article 11, restore the Base Building and such Common Areas. Such restoration shall be to substantially the same condition of the Base Building and the Common Areas prior to the Casualty, except for modifications required by zoning and building codes and other laws or by any Mortgagee or any other modifications to the Common Areas deemed desirable by Landlord and which are consistent with the character of the Project (provided that access to the Premises shall not be materially impaired by such modifications to the Common Areas). Tenant shall cooperate with Landlord in such manner as Landlord may reasonably request to assist Landlord in collecting insurance proceeds due in connection with any Casualty which affects the Premises or the Building, including providing requested information within ten (10) business days after request. In the Expense Year in which a Casualty occurs, there shall be included in Operating Expenses Landlord's commercially reasonable deductible under its property insurance policy. Landlord's obligations under this Section 11.1.1 are subject to delays caused by any Tenant Party, Section 29.16 below, rights of Mortgagees, Legal Requirements then-in-existence, delays for adjustment of insurance proceeds, and delays arising from the time needed for Tenant to obtain any license, clearance or other authorization of any kind required for Landlord to enter into and restore the Premises issued by any governmental authority to the extent necessary as a result of the use of Hazardous Materials in, on or about the Premises (collectively referred to herein as "**Hazardous Materials Clearances**"). Tenant shall use diligent good faith efforts to obtain any and all Hazardous Materials Clearances as soon as reasonably possible.

11.1.2 Tenant shall, at its sole cost and expense, repair any injury or damage to Tenant's Fitout installed in the Premises and shall return Tenant's Fitout to its original condition. Prior to the commencement of construction, Tenant shall submit to Landlord, for Landlord's review and approval, all plans, specifications and working drawings relating thereto. Under no circumstances shall Landlord be required to repair any damage to, or make any repairs to or replacements of, Tenant's Fitout. Landlord shall not be liable for any inconvenience or annoyance to Tenant or its visitors, or injury to Tenant's business resulting in any way from such damage or the repair thereof. If the Lease Term shall expire, or if this Lease is terminated, in either case prior to completion of Tenant's restoration of Tenant's Fitout to its original condition, Tenant shall assign to Landlord all of its right, title and interest in and to a portion of the insurance proceeds therefor equal to the unamortized costs thereof to the extent not designated for removal.

11.1.3 Notwithstanding any contrary provision of this Article 11, the parties hereby agree as follows: (i) the closure of the Project, the Building, the Common Areas, or any part thereof to protect public health shall not constitute a Casualty for purposes of this Lease, (ii) Casualty covered by this Article 11 shall require that the physical or structural integrity of the Premises, the Project, the Building, or the Common Areas is degraded as a direct result of such occurrence, and (iii) a Casualty under this Article 11 shall not be deemed to occur merely because Tenant is unable to productively use the Premises in the event that the physical and structural integrity of the Premises is undamaged.

11.2 **Landlord's Option to Repair**. Notwithstanding the terms of Section 11.1 of this Lease, Landlord may elect not to rebuild and/or restore the Premises, Building and/or Project, and instead terminate this Lease, by notifying Tenant in writing of such termination within sixty (60) days after the date of discovery of the damage, such notice to include a termination date giving Tenant sixty (60) days to vacate the Premises, but Landlord may so elect only if the Building or Project shall be damaged by Casualty, whether or not the Premises are affected, and one or more of the following conditions is present: (i) in Landlord's reasonable judgment, repairs cannot reasonably be completed within one hundred eighty (180) days after the date of discovery of the damage (when such repairs are made without the payment of overtime or other premiums); (ii) the holder of any mortgage on the Building or Project or ground lessor with respect to the Building or Project shall require that the insurance proceeds or any portion thereof be used to retire the mortgage debt, or shall terminate the ground lease, as the case may be; (iii) the damage is not fully covered by Landlord's insurance policies; (iv) Landlord decides to rebuild the Building or Common Areas so that they will be substantially different structurally or architecturally; (v) the damage occurs during the last twelve (12) months of the Lease Term; or (vi) any owner of any other portion of the Project, other than Landlord, does not intend to repair the damage to such portion of the Project; provided, however, that if Landlord does not elect to terminate this Lease pursuant to Landlord's termination right as provided above, and the repairs cannot, in the reasonable opinion of Landlord, be completed within one (1) year after being commenced, Tenant may elect, no earlier than sixty (60) days after the date of the damage and not later than ninety (90) days after the date of such damage, to terminate this Lease by written notice to Landlord effective as of the date specified in the notice, which date shall not be less than thirty (30) days nor more than sixty (60) days after the date such notice is given by Tenant. Notwithstanding the provisions of this Section 11.2, Tenant shall have the right to terminate this Lease under this Section 11.2 only if each of the following conditions is satisfied: (a) the damage to the Project by Casualty was not caused by the gross negligence or intentional act of Tenant or its partners or subpartners or their respective officers, agents, servants, employees, or independent contractors; (b) no Event of Default shall be continuing, under this Lease; (c) as a result of the damage, Tenant cannot reasonably conduct business from the Premises; and, (d) as a result of the damage to the Project, Tenant does not occupy or use the Premises at all.

12. NONWAIVER

No provision of this Lease shall be deemed waived by either party hereto unless expressly waived in a writing signed thereby. The waiver by either party hereto of any breach of any term, covenant or condition herein contained shall not be deemed to be a waiver of any subsequent breach of same or any other term, covenant or condition herein contained. The subsequent acceptance of Rent hereunder by Landlord shall not be deemed to be a waiver of any preceding breach by Tenant of any term, covenant or condition of this Lease, other than the failure of Tenant to pay the particular Rent so accepted, regardless of Landlord's knowledge of such preceding breach at the time of acceptance of such Rent. No acceptance of a lesser amount than the Rent herein stipulated shall be deemed a waiver of Landlord's right to receive the full amount due, nor shall any endorsement or statement on any check or payment or any letter accompanying such check or payment be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the full amount due. No receipt of monies by Landlord from Tenant after the termination of this Lease shall in any way alter the length of the Lease Term or of Tenant's right of possession hereunder, or after the giving of any notice shall reinstate, continue or extend the Lease Term or affect any notice given Tenant prior to the receipt of such monies, it being agreed that after the service of notice or the commencement of a suit, or after final judgment for possession of the Premises, Landlord may receive and collect any Rent due, and the payment of said Rent shall not waive or affect said notice, suit or judgment.

13. **CONDEMNATION**

If the whole or any part of the Premises, Building or Project shall be taken by power of eminent domain or condemned by any competent authority for any public or quasi-public use or purpose, or if any adjacent property or street shall be so taken or condemned, or reconfigured or vacated by such authority in such manner as to require the use, reconstruction or remodeling of any part of the Premises, Building or Project, or if Landlord shall grant a deed or other instrument in lieu of such taking by eminent domain or condemnation, Landlord shall have the option to terminate this Lease effective as of the date possession is required to be surrendered to the authority. Tenant shall not because of such taking assert any claim against Landlord or the authority for any compensation because of such taking and Landlord shall be entitled to the entire award or payment in connection therewith, except that Tenant shall have the right to file any separate claim available to Tenant for any taking of Tenant's personal property and fixtures belonging to Tenant and removable by Tenant upon expiration of the Lease Term pursuant to the terms of this Lease, and for moving expenses, so long as such claims do not diminish the award available to Landlord, its ground lessor with respect to the Building or Project or its Mortgagee, and such claim is payable separately to Tenant. All Rent shall be apportioned as of the date of such termination. If any part of the Premises shall be taken, and this Lease shall not be so terminated, the Rent shall be proportionately abated. Notwithstanding anything to the contrary contained in this Article 13, in the event of a temporary taking of all or any portion of the Premises for a period of one hundred and eighty (180) days or less, then this Lease shall not terminate but the Base Rent and Additional Rent on account of Direct Expenses shall be abated for the period of such taking in proportion to the ratio that the amount of rentable square feet of the Premises taken bears to the total rentable square feet of the Premises. Landlord shall be entitled to receive the entire award made in connection with any such temporary taking. Notwithstanding any contrary provision of this Lease, the following governmental actions shall not constitute a taking or condemnation, either permanent or temporary: (i) an action that requires Tenant's business or the Building or Project to close during the Lease Term, and (ii) an action taken for the purpose of protecting public safety (e.g., to protect against acts of war, the spread of communicable diseases, or an infestation), and no such governmental actions shall entitle Tenant to any compensation from Landlord or any authority, or Rent abatement or any other remedy under this Lease.

14. **ASSIGNMENT AND SUBLETTING**

14.1 **Transfers**. Tenant shall not mortgage, pledge, hypothecate, encumber, or permit any lien to attach to, Tenant's interest hereunder. Furthermore, Tenant shall not, without the prior written consent of Landlord, assign or otherwise transfer this Lease or any interest hereunder, permit any assignment, or other transfer of this Lease or any interest hereunder (whether by changes in the ownership or control of Tenant, or any direct or indirect owner of Tenant, whether at one time or at intervals, by sale or transfer of stock, partnership or beneficial interests, or by operation of law), sublet the Premises or any part thereof, or enter into any license or concession agreements or otherwise permit the occupancy or use of the Premises or any part thereof by any persons other than Tenant and its employees (all of the foregoing are hereinafter sometimes referred to collectively as "**Transfers**" and any person to whom any Transfer is made or sought to be made is hereinafter sometimes referred to as a "**Transferee**"). If Tenant desires Landlord's consent to any Transfer, Tenant shall notify Landlord in writing, which notice (the "**Transfer Notice**") shall include (i) the proposed effective date of the Transfer, which shall not be less than thirty (30) days nor more than one hundred eighty (180) days after the date of delivery of the Transfer Notice, (ii) a description of the portion of the Premises to be transferred (the "**Subject Space**"), (iii) all of the terms of the proposed Transfer and the consideration therefor, including calculation of the Transfer Premium, in connection with such Transfer, the name and address of the proposed Transferee, and a copy of all existing executed and/or proposed documentation pertaining to the proposed Transfer, including all existing operative documents to be executed to evidence such Transfer or the agreements incidental or related to such Transfer, provided that Landlord shall have the right to require Tenant to utilize Landlord's standard Transfer documents in connection with the documentation of such Transfer, (iv) a list of Hazardous Materials (which list shall be certified by the proposed Transferee to be true and correct) that the proposed Transferee intends to use or store in the Premises, and the information described in Section 5.3.2.4 above related thereto, and (v) current financial statements of the proposed Transferee certified by an officer, partner or owner thereof, business credit references, and a description of the nature of such Transferee's business and proposed use of the Subject Space. Any Transfer made without Landlord's prior written consent shall, at Landlord's option, be null, void and of no effect, and shall, at Landlord's option, constitute an Event of Default by Tenant under this Lease; provided that if there is a Transfer, Landlord may collect rent from the Transferee without waiving the prohibition against Transfers, accepting the Transferee, or releasing Tenant from full performance under this Lease. The listing of any name other than that of Tenant, whether on the doors of the Premises or on the Building directory, or otherwise, shall not operate to vest in any such other person, firm or corporation any right or interest in this Lease or in the Premises or be deemed to effect or evidence any consent of Landlord, it being expressly understood that any such listing is a privilege extended by Landlord revocable at will by written notice to Tenant. Whether or not Landlord consents to any proposed Transfer, Tenant shall pay Landlord's reasonable review and processing fees, as well as any reasonable professional fees (including attorneys', accountants', architects', engineers' and consultants' fees) incurred by Landlord, within thirty (30) days after written request by Landlord.

14.2 **Landlord's Consent**. Landlord shall not unreasonably withhold or delay its consent to any proposed Transfer of the Subject Space to the Transferee at fair market rent and otherwise on the terms specified in the Transfer Notice. It shall be reasonable for Landlord to condition its consent on Tenant's cure of any and all then-outstanding Tenant default(s) under this Lease. Without limitation as to other reasonable grounds for withholding consent, the parties hereby agree that it shall be reasonable under this Lease and under any Legal Requirement for Landlord to withhold consent to any proposed Transfer where one or more of the following apply:

14.2.1 The Transferee is of a character or reputation or engaged in a business which is not consistent with the quality of the Building or the Project;

14.2.2 The Transferee intends to use the Subject Space for purposes which are not permitted under this Lease;

14.2.3 The Transferee is a governmental agency or instrumentality thereof;

14.2.4 The Transferee is not a party of reasonable financial worth and/or financial stability in light of the responsibilities to be undertaken in connection with the Transfer on the date consent is requested;

14.2.5 The proposed Transfer would cause a violation of another lease for space in the Project, or would give an occupant of the Project a right to cancel its lease;

14.2.6 No Event of Default shall be continuing under this Lease;

14.2.7 Any part of the rent payable under such Transfer instrument shall be based in whole or in part on the net income or profits of any Transferee in accordance with Code Section 512(b)(3)(B)(ii), any successor provision thereto or any guidance promulgated thereunder;

14.2.8 The proposed Transferee (a) has been required by any prior landlord, lender or governmental authority to take remedial action in connection with Hazardous Materials contaminating a property, where the contamination resulted from such party's action or use of the property in question, (b) is subject to an enforcement order issued by any governmental authority in connection with the use, storage, handling, treatment, generation, release or disposal of Hazardous Materials, or (c) is engaged in areas of scientific research or other business concerns that are controversial such that Landlord determines the same could reasonably be expected to (i) attract or cause negative publicity for or about the Building, (ii) negatively affect the reputation of the Building or Landlord, (iii) attract protestors to the Building, or (iv) lessen the attractiveness of the Building to any tenants or prospective tenants, purchasers or lenders; or

14.2.9 Either the proposed Transferee, or any person or entity which directly or indirectly, controls, is controlled by, or is under common control with, the proposed Transferee, (i) occupies space in the Project at the time of the request for consent, or (ii) is negotiating with Landlord or has negotiated with Landlord during the six (6) month period immediately preceding the date Landlord receives the Transfer Notice, to lease space in the Project.

If Landlord consents to any Transfer pursuant to the terms of this Section 14.2 (and does not exercise any recapture rights Landlord may have under Section 14.4 of this Lease), Tenant may within six (6) months after Landlord's consent, but not later than the expiration of said six-month period, enter into such Transfer of the Premises or portion thereof, upon substantially the same terms and conditions as are set forth in the Transfer Notice furnished by Tenant to Landlord pursuant to Section 14.1 of this Lease, provided that if there are any changes in the terms and conditions from those specified in the Transfer Notice such that Landlord would initially have been entitled to refuse its consent to such Transfer under this Section 14.2, Tenant shall again submit the Transfer to Landlord for its approval and other action under this Article 14 (including Landlord's right of recapture under Section 14.4 of this Lease). Notwithstanding anything to the contrary in this Lease, if Tenant or any proposed Transferee claims that Landlord has unreasonably withheld or delayed its consent under Section 14.2 or otherwise has breached or acted unreasonably under this Article 14, their sole remedies shall be a suit for contract damages (other than damages for injury to, or interference with, Tenant's business including loss of profits, however occurring) or declaratory judgment and an injunction for the relief sought, and Tenant hereby waives all other remedies, including any right at law or equity to terminate this Lease, on its own behalf and, to the extent permitted under all Legal Requirements on behalf of the proposed Transferee.

14.3 **Transfer Premium**. If Landlord consents to a Transfer, as a condition thereto which the parties hereby agree is reasonable, Tenant shall pay to Landlord fifty percent (50%) of any Transfer Premium received by Tenant from such Transferee. "**Transfer Premium**" shall mean all rent, additional rent or other consideration payable by such Transferee in connection with the Transfer in excess of the Rent and Additional Rent payable by Tenant under this Lease during the term of the Transfer on a per rentable square foot basis if less than all of the Premises is transferred, and after deduction of (i) any costs of improvements made to the Subject Space in connection with such Transfer, (ii) brokerage commissions paid in connection with such Transfer, and (iii) reasonable legal fees incurred in connection with such Transfer. Transfer Premium shall also include key money, bonus money or other cash consideration paid by Transferee to Tenant in connection with such Transfer, and any payment in excess of fair market value for services rendered by Tenant to Transferee or for assets, fixtures, inventory, equipment, or furniture transferred by Tenant to Transferee in connection with such Transfer. The determination of the amount of Landlord's applicable share of the Transfer Premium shall be made on a monthly basis as rent or other consideration is received by Tenant under the Transfer, provided that all amounts under clauses (i)-(iii) shall first be reimbursed to Tenant from such rent or other consideration before Landlord shall be entitled to its share of any Transfer Premium. This Section 14.3 shall not apply to a Transfer made pursuant to Section 14.8 below.

14.4 **Landlord's Option as to Subject Space**. Notwithstanding anything to the contrary contained in this Article 14, in the event Tenant contemplates a Transfer of 50% or more (individually or in the aggregate with respect to all then-existing Transfers) of the Premises (other than a Transfer to a Successor), Tenant shall give Landlord notice (the "**Intention to Transfer Notice**") of such contemplated Transfer (whether or not the contemplated Transferee or the terms of such contemplated Transfer have been determined). The Intention to Transfer Notice shall specify the portion of and amount of rentable square feet of the Premises which Tenant intends to Transfer (the "**Contemplated Transfer Space**"), the contemplated date of commencement of the contemplated Transfer (the "**Contemplated Effective Date**"), and the contemplated length of the term of such contemplated Transfer, and shall specify that such Intention to Transfer Notice is delivered to Landlord pursuant to this Section 14.4 in order to allow Landlord to elect to recapture the Contemplated Transfer Space. Thereafter, Landlord shall have the option, by giving written notice to Tenant within thirty (30) days after receipt of any Intention to Transfer Notice, to recapture the Contemplated Transfer Space. Such recapture shall cancel and terminate this Lease with respect to such Contemplated Transfer Space as of the Contemplated Effective Date. In the event of a recapture by Landlord, if this Lease shall be canceled with respect to less than the entire Premises, (a) Landlord shall demise the Contemplated Transfer Space at Landlord's cost and expense, (b) the Rent reserved herein shall be prorated on the basis of the number of rentable square feet retained by Tenant in proportion to the number of rentable square feet contained in the Premises, and (c) this Lease as so amended shall continue thereafter in full force and effect, and upon request of either party, the parties shall execute written confirmation of the same. If Landlord declines, or fails to elect in a timely manner, to recapture such Contemplated Transfer Space under this Section 14.4, then, subject to the other terms of this Article 14, for a period of nine (9) months (the "**Nine Month Period**") commencing on the last day of such thirty (30) day period, Landlord shall not have any right to recapture the Contemplated Transfer Space with respect to any Transfer made during the Nine Month Period, provided that any such Transfer is substantially on the terms set forth in the Intention to Transfer Notice, and provided further that any such Transfer shall be subject to the remaining terms of this Article 14. If such a Transfer is not so consummated within the Nine Month Period (or if a Transfer is so consummated, then upon the expiration of the term of any Transfer of such Contemplated Transfer Space consummated within such Nine Month Period), Tenant shall again be required to submit a new Intention to Transfer Notice to Landlord with respect any contemplated Transfer, as provided above in this Section 14.4.

14.5 **Effect of Transfer**.

14.5.1 If Landlord consents to a Transfer, (i) the terms and conditions of this Lease shall in no way be deemed to have been waived or modified, (ii) such consent shall not be deemed consent to any further Transfer by either Tenant or a Transferee, (iii) Tenant shall deliver to Landlord, promptly after execution, an original executed copy of all documentation pertaining to the Transfer in form reasonably acceptable to Landlord, (iv) Tenant shall furnish upon Landlord's request a complete statement, certified by an independent certified public accountant, or Tenant's chief financial officer, setting forth in detail the computation of any Transfer Premium Tenant has derived and shall derive from such Transfer, and (v) no Transfer relating to this Lease or agreement entered into with respect thereto, whether with or without Landlord's consent, shall relieve Tenant or any guarantor of the Lease from any liability under this Lease, including in connection with the Subject Space. Landlord or its authorized representatives shall have the right at all reasonable times upon reasonable prior written notice to Tenant, to audit the books, records and papers of Tenant relating to any Transfer, and shall have the right to make copies thereof. If the Transfer Premium respecting any Transfer shall be found understated, Tenant shall, within thirty (30) days after demand, pay the deficiency, and if understated by more than two percent (2%), Tenant shall pay Landlord's costs of such audit. In the event that Tenant subleases all or any portion of the Premises in accordance with the terms of this Article 14, Tenant shall cause such subtenant to carry and maintain the same insurance coverage terms and limits as are required of Tenant, in accordance with the terms of Article 10 of this Lease.

14.5.2 In addition to the other requirements set forth in this Lease, subleases or licenses of less than all of the Premises shall only be permitted under the following terms and conditions: (a) the layout of both the subleased premises and the remainder of the Premises must comply with Legal Requirements and be reasonably approved by Landlord, including all requirements concerning access and egress and any modifications necessary to have the Premises function as a multi-tenant space rather than as a single tenant space; and (b) there shall be no more than one (1) sublease in effect in the Premises at any given time.

14.6 **Additional Transfers**. For purposes of this Lease, the term "**Transfer**" shall also include (i) if Tenant is a partnership, the withdrawal or change, voluntary, involuntary or by operation of law, of fifty percent (50%) or more of the partners, or transfer of fifty percent (50%) or more of partnership interests, within a twelve (12)-month period, or the dissolution of the partnership without immediate reconstitution thereof, and (ii) if Tenant is a corporation or limited liability company whose stock is not publicly held and not traded through an exchange or over the counter, (A) the dissolution, merger, consolidation or other reorganization of Tenant or (B) the sale or other transfer of an aggregate of fifty percent (50%) or more of the voting shares of Tenant (other than to immediate family members by reason of gift or death), within a twelve (12)-month period, or (C) the sale, mortgage, hypothecation or pledge of an aggregate of fifty percent (50%) or more of the value of the unencumbered assets of Tenant within a twelve (12)- month period.

14.7 **Occurrence of Default**. Any Transfer hereunder shall be subordinate and subject to the provisions of this Lease, and if this Lease shall be terminated during the term of any Transfer, Landlord shall have the right to: (i) treat such Transfer as cancelled and repossess the Subject Space by any lawful means, or (ii) require that such Transferee attorn to and recognize Landlord as its landlord under any such Transfer. For so long as an Event of Default shall have occurred and be continuing under this Lease, Landlord is hereby irrevocably authorized, as Tenant's agent and attorney-in-fact, to direct any Transferee to make all payments under or in connection with the Transfer directly to Landlord (which Landlord shall apply towards Tenant's obligations under this Lease). Such Transferee shall rely on any representation by Landlord that an Event of Default has occurred and is continuing hereunder, without any need for confirmation thereof by Tenant. Upon any assignment (including an assignment to an affiliate), the assignee shall assume in writing all obligations and covenants of Tenant thereafter to be performed or observed under this Lease. No collection or acceptance of rent by Landlord from any Transferee shall be deemed a waiver of any provision of this Article 14 or the approval of any Transferee or a release of Tenant from any obligation under this Lease, whether theretofore or thereafter accruing. In no event shall Landlord's enforcement of any provision of this Lease against any Transferee be deemed a waiver of Landlord's right to enforce any term of this Lease against Tenant or any other person. If Tenant's obligations hereunder have been guaranteed, Landlord's consent to any Transfer shall not be effective unless the guarantor also consents to such Transfer.

14.8 **Permitted Transfers**. Notwithstanding anything to the contrary contained in this Article 14, Tenant may, without Landlord's consent but with at least ten (10) business days' prior written notice to Landlord (unless contractually or legally prohibited from doing so, in which event such notice shall be provided within five (5) business days after the effective date thereof), assign all of its interest in the Lease and the Premises to an entity into or with which Tenant is merged or with which Tenant is consolidated or which acquires all or substantially all of Tenant's stock or assets, provided that immediately after the Transfer the surviving entity shall have a tangible net worth (i.e., total assets, less intangible assets, less total liabilities, as evidenced by either (1) publicly available annual report(s) or SEC or other public filings, or (2) financial statements (audited, if available; and if not available, then certified as being true, complete and correct by the Treasurer or Chief Financial Officer of the Successor) prepared in accordance with GAAP or other nationally recognized accounting standard and delivered to Landlord) at least equal to Tenant's tangible net worth as of the Execution Date or immediately prior to such assignment, whichever is greater (a "**Successor**"), provided that such assignment is not a subterfuge by Tenant to avoid its obligations under this Lease. No such permitted Transfer shall serve to release Tenant from any of its obligations under this Lease. Any Successor to which a Transfer is made pursuant to this Section 14.8 is referred to herein as a "**Permitted Transferee**."

15. **SURRENDER OF PREMISES; OWNERSHIP AND REMOVAL OF TRADE FIXTURES**

15.1 **Surrender of Premises**. No act or thing done by Landlord or any agent or employee of Landlord during the Lease Term shall be deemed to constitute an acceptance by Landlord of a surrender of the Premises unless such intent is specifically acknowledged in writing by Landlord. The delivery of keys to the Premises to Landlord or any agent or employee of Landlord shall not constitute a surrender of the Premises or effect a termination of this Lease, whether or not the keys are thereafter retained by Landlord, and notwithstanding such delivery Tenant shall be entitled to the return of such keys at any reasonable time upon request until this Lease shall have been properly terminated. The voluntary or other surrender of this Lease by Tenant, whether accepted by Landlord or not, or a mutual termination hereof, shall not work a merger, and at the option of Landlord shall operate as an assignment to Landlord of all subleases or subtenancies affecting the Premises or terminate any or all such sublessees or subtenancies.

15.2 **Removal of Tenant Property by Tenant**. Upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, subject to the provisions of this Article 15, peaceably quit and surrender possession of the Premises to Landlord broom clean and otherwise in as good order and condition as when Tenant took possession and as thereafter improved by Landlord and/or Tenant, reasonable wear and tear and repairs which are specifically made the responsibility of Landlord hereunder excepted. Upon such expiration or termination, Tenant shall, without expense to Landlord, remove or cause to be removed from the Premises all debris and rubbish, and all of Tenant's Property (including all cabling, trade fixtures, furniture and equipment), and all Alterations designated by Landlord for removal, and Tenant shall repair at its own expense all damage to the Premises and Building resulting from the installation thereof and/or from such removal. Notwithstanding anything to the contrary contained herein, Tenant shall, at its sole cost and expense, remove from the Premises, prior to the end of the Lease Term, any item installed by or for Tenant and which, pursuant to Legal Requirements, must be removed therefrom before the Premises may be used by a subsequent tenant. If Tenant fails to remove any property from the Building or the Premises which Tenant is obligated by the terms of this Lease to remove within five (5) business days after written notice from Landlord, all or any of such property (the "**Abandoned Property**") shall, at Landlord's option be conclusively deemed to have been abandoned, and may either be retained by Landlord as its property or sold or otherwise disposed of in such manner as Landlord may see fit. If any item of Abandoned Property shall be sold, Tenant hereby agrees that Landlord may receive and retain the proceeds of such sale and apply the same, at its option, to the expenses of the sale, the cost of moving and storage, any damages to which Landlord may be entitled hereunder or pursuant to law, and to any arrears of Rent.

15.3 **Decommissioning; Surrender Plan**.

15.3.1 Prior to the expiration of this Lease (or within thirty (30) days after any earlier termination), Tenant shall clean and otherwise decommission all interior surfaces (including floors, walls, ceilings, and counters), piping, supply lines, waste lines, pH neutralization systems and plumbing in and/or exclusively serving the Premises, and all exhaust or other ductwork in and/or exclusively serving the Premises, in each case which has carried or released or been contacted by any Hazardous Materials or other chemical or biological materials used in the operation of the Premises by any Tenant Party, in accordance with then-applicable ANSI/ASSP standards, modified as necessary to reflect the types of Hazardous Materials used by Tenant within the Premises and the locations of their use, and shall otherwise clean the Premises so as to permit the Decommissioning Closure Report (as defined below) to be issued.

15.3.2 At least one hundred twenty (120) days prior to the expiration of the Lease Term (or, if applicable, within five (5) business days after any earlier termination of this Lease), Tenant shall deliver to Landlord a narrative description prepared by a competent and experienced third-party environmental engineer or engineering firm reasonably satisfactory to Landlord of the actions proposed (or required by any Legal Requirements) to be taken by Tenant in order to render the Premises (including floors, walls, ceilings, counters, equipment, piping, supply lines, waste lines and plumbing in or serving the Premises and all exhaust or other ductwork in or serving the Premises) free of Hazardous Materials and if applicable, otherwise released for unrestricted use and occupancy for the Permitted Use (the "**Surrender Plan**"). The Surrender Plan shall be prepared so that, following its implementation, all exhaust and other duct work in the Premises may be reused by a subsequent tenant or disposed of in conformance with all applicable Environmental Laws without incurring any costs on account of any Hazardous Materials attributable to the operations of any Tenant Party or undertaking special procedures for demolition, disposal, investigation, assessment, cleaning or removal of such Hazardous Materials or needing to give notice in connection with such Hazardous Materials. The Surrender Plan (i) shall be accompanied by a current list of (A) all local, state and federal licenses, registrations, permits and approvals held by or on behalf of any Tenant Party with respect to Hazardous Materials in, on, under, at or about the Premises, and (B) Tenant's Hazardous Materials, and (ii) shall be subject to the review and approval of Landlord's environmental consultant, such approval not to be unreasonably withheld or delayed. In connection with review and approval of the Surrender Plan, upon request of Landlord, Tenant shall deliver to Landlord or its consultant such additional non-proprietary information concerning the use of and operations within the Premises as Landlord shall reasonably request.

15.3.3 On or before the expiration of the Lease Term (or within thirty (30) days after any earlier termination of this Lease, during which period Tenant's use and occupancy of the Premises shall be governed by Article 16 below), Tenant shall (i) perform or cause to be performed all actions described in the approved Surrender Plan, and (ii) deliver to Landlord a certification from a third party certified industrial hygienist reasonably acceptable to Landlord certifying that the Premises do not contain any Hazardous Materials and evidence that the approved Surrender Plan shall have been satisfactorily completed by a contractor reasonably acceptable to Landlord (the "**Decommissioning Closure Report**"). The Decommissioning Closure Report shall include reasonable detail concerning the clean-up measures taken, the clean-up locations, the tests run, and the analytic results. Following delivery of the Decommissioning Closure Report, Landlord shall have the right, subject to reimbursement at Tenant's expense as set forth below, to cause Landlord's environmental consultant to inspect the Premises to confirm the conclusions of such report and if required perform such additional procedures as may be deemed reasonably necessary to confirm that the Premises are, as of the expiration of the Lease Term (or, if applicable, the date which is thirty (30) days after any earlier termination of this Lease), free of Hazardous Materials and otherwise available for unrestricted use and occupancy for the Permitted Use as aforesaid. Landlord shall have the unrestricted right to deliver the Surrender Plan, the Decommissioning Closure Report and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties. Such third parties and the Landlord Parties shall be entitled to rely on the Decommissioning Closure Report.

15.3.4 If Tenant shall fail to prepare a Surrender Plan or submit a Decommissioning Closure Report based on the Surrender Plan approved by Landlord, or if it is reasonably determined through an inspection conducted by Landlord's environmental consultant as contemplated in Section 15.3.4 that Tenant failed to complete the approved Surrender Plan, or if it is determined that such Surrender Plan, whether or not approved by Landlord, was, for reasons not actually known by Landlord at the time of its initial review, deficient in scope to adequately address the use of Hazardous Materials by any of the Tenant Parties in, on, at, under or about the Premises), (a) Landlord shall have the right to take any such actions as Landlord reasonably deems appropriate to assure that the Premises and other areas serving the same are surrendered in the condition required hereunder ("**Landlord's Actions**"), the reasonable cost of which actions shall be reimbursed by Tenant as additional rent upon demand; (b) if the Lease Term shall have ended, or the Lease shall have been terminated, and Tenant remains in possession of the Premises for the purposes of implementing the Surrender Plan, nothing herein shall limit Landlord from utilizing all appropriate remedies to regain possession of the Premises including pursuit of a Summary Process action; and (c) regardless of whether Tenant remains in the Premises after the Lease Term (or the earlier termination of the Lease) or has vacated the Premises by the end of the Lease Term (or the earlier termination of the Lease), unless and until Landlord elects to take such actions to assure that the Premises are surrendered in the condition required hereunder, Tenant shall pay to Landlord holdover rent, with respect to the period from the last day of the Lease Term (or earlier termination of the Lease) until the earlier of (i) the date on which Landlord's Actions are complete, and (ii) the date on which Tenant delivers the Decommissioning Closure Report (in the form required hereunder) to Landlord, in an the amount set forth in Article 16 hereof, plus (B) Tenant's Share of Direct Expenses attributable to such period. If Tenant has vacated the Premises before delivering the Decommissioning Closure Report, then unless and until Landlord elects to take Landlord's Actions, Landlord will work with Tenant to provide Tenant with reasonable access to the Premises to effectuate the Surrender Plan and Tenant shall be deemed to be a holdover tenant subject to the provisions of Article 16 below until the date on which Tenant delivers the Decommissioning Closure Report (in the form required hereunder) to Landlord. Tenant's obligations under this Section 15.3 shall survive the expiration or earlier termination of this Lease.

15.4 **Condition of the Building and Premises Upon Surrender**. In addition to the above requirements of this Article 15, upon the expiration of the Lease Term, or upon any earlier termination of this Lease, Tenant shall, surrender the Premises and Building such that the same are in compliance with all Legal Requirements (except to the extent that the responsibility for the compliance of the Tenant's Fitout with Legal Requirements in effect as of the Lease Commencement Date shall remain with Landlord) and with Tenant having complied with all of Tenant's obligations under this Lease, including those relating to improvement, repair, maintenance, compliance with law, testing and other related obligations of Tenant set forth in Article 7 of this Lease. In the event that the Building and Premises shall be surrendered in a condition which does not comply with the terms of this Section 15.4, because Tenant failed to comply with its obligations set forth in Lease, then Landlord shall be entitled to expend all reasonable costs in order to cause the same to comply with the required condition upon surrender and Tenant shall immediately reimburse Landlord for all such costs upon notice and Tenant shall be deemed during the period that Tenant or Landlord, as the case may be, performs obligations relating to the Premises to be in holdover under Article 16 of this Lease.

16. **HOLDING OVER**

If Tenant fails to surrender the Premises in the condition required by this Lease upon the expiration of the Lease Term or earlier termination thereof, Tenant shall be deemed a tenant-at-sufferance, and such failure shall not constitute a renewal hereof or an extension for any further term, and in such case Rent shall be payable at a daily rate equal to the product of (i) the daily Rent applicable during the last rental period of the Lease Term under this Lease, and (ii) a percentage equal to one hundred twenty-five percent (125%) with respect to the first fifteen (15) days of such holdover and one hundred fifty percent (150%) thereafter. Such tenancy shall be subject to every other applicable term, covenant and agreement contained herein. Nothing contained in this Article 16 shall be construed as consent by Landlord to any holding over by Tenant, and Landlord expressly reserves the right to require Tenant to surrender possession of the Premises to Landlord as provided in this Lease upon the expiration or other termination of this Lease. The provisions of this Article 16 shall not be deemed to limit or constitute a waiver of any other rights or remedies of Landlord provided herein, at law or in equity. If Tenant fails to surrender the Premises upon the termination or expiration of this Lease in the condition required by this Lease, in addition to any other liabilities to Landlord accruing therefrom, Tenant shall protect, defend, indemnify and hold Landlord harmless from and against any and all Claims resulting from such failure, including any claims made by any succeeding tenant founded upon such failure to surrender and any lost profits to Landlord resulting therefrom; provided, however, Tenant shall not be liable for consequential damages arising from such failure unless (a) Landlord has notified Tenant in writing that Landlord has entered into a bona fide occupancy or lease agreement relating to all or any portion of the Premises for a term commencing after the end of the Lease Term, (b) Landlord provides Tenant with reasonable evidence of such bona fide agreement, and (c) such failure by Tenant continues for thirty (30) days after the last day of the Term. Tenant agrees that any proceedings necessary to recover possession of the Premises, whether before or after expiration of the Lease Term, shall be considered an action to enforce the terms of this Lease for purposes of the awarding of any attorney's fees in connection therewith.

17. **ESTOPPEL CERTIFICATES**

Within ten (10) business days following a request in writing by Landlord, Tenant shall execute, acknowledge and deliver to Landlord an estoppel certificate, which shall be substantially in the form of Exhibit F, attached hereto (or such other commercially reasonable form as may be reasonably required by any prospective Mortgagee or purchaser of the Project, or any portion thereof), indicating therein any exceptions thereto that may exist at that time, and shall also contain any other information reasonably requested by Landlord or Landlord's Mortgagee, prospective Mortgagee or prospective purchaser. Any such certificate may be relied upon by any actual or prospective Mortgagee or purchaser of all or any portion of the Project. Failure of Tenant to timely execute, acknowledge and deliver such estoppel certificate shall constitute an acknowledgment by Tenant that the statements included in the estoppel certificate are true and correct, without exception. In addition, Tenant shall deliver to Landlord, within thirty (30) days after Landlord's reasonable request, Tenant's most recently completed balance sheet and related statements of income, shareholder's equity and cash flows statements (audited if available) reviewed by an independent certified public accountant and certified by an officer of Tenant as being true and correct in all material respects. Any such financial information may be relied upon by any actual or potential lessor, purchaser, or Mortgagee of the Project or any portion thereof.

18. **SUBORDINATION**

This Lease shall be subject and subordinate to all present and future ground or underlying leases of the Building or Project and to the lien of any mortgage, trust deed or other encumbrances now or hereafter in force against the Building or Project or any part thereof, if any, and to all renewals, extensions, modifications, consolidations and replacements thereof, and to all advances made or hereafter to be made upon the security of such mortgages or trust deeds, unless the holders of such mortgages, trust deeds or other encumbrances, or the lessors under such ground lease or underlying leases (each, a "**Mortgagee**"), require in writing that this Lease be superior thereto. Tenant covenants and agrees in the event any proceedings are brought for the foreclosure of any such mortgage or deed in lieu thereof (or if any ground lease is terminated), to attorn, without any deductions or set-offs whatsoever, to the lienholder or purchaser or any successors thereto upon any such foreclosure sale or deed in lieu thereof (or to the ground lessor), if so requested to do so by such purchaser or lienholder or ground lessor, and to recognize such purchaser or lienholder or ground lessor as the lessor under this Lease, provided such lienholder or purchaser or ground lessor shall agree to accept this Lease and not disturb Tenant's occupancy, so long as Tenant timely pays the rent and observes and performs the terms, covenants and conditions of this Lease to be observed and performed by Tenant. Tenant agrees that (a) the liability of the Mortgagee and its successors and assigns shall exist only so long as such Mortgagee or purchaser is the owner of the Premises, and such liability shall not continue or survive after further transfer of ownership; and (b) such Mortgagee and its successors or assigns shall not be (i) liable for any act or omission of any prior lessor under this Lease; (ii) liable for the performance of Landlord's covenants pursuant to the provisions of this Lease which arise and accrue prior to such Mortgagee succeeding to the interest of Landlord under this Lease or acquiring such right to possession; (iii) subject to any offsets or defense which Tenant may have at any time against Landlord; (iv) bound by any base rent or other sum which Tenant may have paid previously for more than one (1) month in advance; or (v) liable for the performance of any covenant of Landlord under this Lease which is capable of performance only by the original Landlord. Landlord's interest herein may be assigned as security at any time to any lienholder. Tenant acknowledges that, where applicable, any consent or approval hereafter given by Landlord may be subject to the further consent or approval of a Mortgagee. The provisions of this Article 18 shall be self-operative and no further instrument shall be required to effect such subordination or attornment; however, Tenant shall, within ten (10) days of request by Landlord, execute such further instruments or assurances as Landlord may reasonably deem necessary to evidence or confirm the subordination or superiority of this Lease to any such mortgages, trust deeds, ground leases or underlying leases. Tenant waives the provisions of any current or future statute, rule or law which may give or purport to give Tenant any right or election to terminate or otherwise adversely affect this Lease and the obligations of the Tenant hereunder in the event of any foreclosure proceeding or sale.

19. **DEFAULTS; REMEDIES**

19.1 **Events of Default**. In addition to any other Events of Default specified in this Lease, the occurrence of any of the following shall constitute a default of this Lease by Tenant (each, an "**Event of Default**"):

19.1.1 Any failure by Tenant to pay any Rent or any other charge required to be paid under this Lease, or any part thereof, within five (5) business days following the date due; or

19.1.2 Except where a specific time period is otherwise set forth for Tenant's performance in this Lease, in which event the failure to perform by Tenant within such time period shall be an Event of Default by Tenant under this Section 19.1.2, any failure by Tenant to observe or perform any other provision, covenant or condition of this Lease to be observed or performed by Tenant where such failure continues for thirty (30) days after written notice thereof from Landlord to Tenant; provided that if the nature of such default is such that the same cannot reasonably be cured within a thirty (30) day period, Tenant shall not be deemed to be in default if it diligently commences such cure within such period and thereafter diligently proceeds to rectify and cure such default; or

19.1.3 Abandonment of all or a substantial portion of the Premises by Tenant, or if Tenant shall vacate all or substantially all of the Premises other than as a result of Casualty, Force Majeure or during a reasonable period of time in connection with permitted Alterations, without having a permitted Transfer in full force and effect with respect to such vacated space (provided, however, it shall not be an Event of Default, if Tenant vacates all or substantially all of the Premises so long as Tenant (i) maintains all insurance required by this Lease, (ii) maintains the Premises as required by this Lease, (ii) keeps the Premises secured, and (iv) keeps the Premises lit during normal business hours); or

19.1.4 The failure by Tenant to observe or perform according to the provisions of Article 5, Article 14, Article 17 or Article 18 of this Lease or any provision of the Tenant Work Letter, where, in each instance, such failure continues for more than three (3) days after notice from Landlord; or

19.1.5 The failure by Tenant to maintain any insurance required hereunder; or

19.1.6 If Tenant causes or suffers any release of Hazardous Materials in, on or near the Project or;

19.1.7 Tenant's admission in writing of Tenant's inability to pay its debts generally as they become due, or Tenant's making or offering to make a composition of its debts with its creditors, or Tenant's making an assignment or trust mortgage, or other conveyance or transfer of like nature, of all or a substantial part of its property for the benefit of its creditors; or

19.1.8 The sale of any of Tenant's assets under an attachment on mesne process, on execution or otherwise, or other legal process; or

19.1.9 The appointment of a receiver, sequesterer, trustee or similar officer by a court of competent jurisdiction to take charge of all or any part of Tenant's property and such appointment shall not be vacated within sixty (60) days; or

19.1.10 The institution of any proceeding by or against Tenant pursuant to any of the provisions of any Act of Congress or State law relating to bankruptcy, reorganizations, arrangements, compositions or other relief from creditors, and, in the case of any proceeding instituted against it, if Tenant shall fail to have such proceedings dismissed within sixty (60) days, or if Tenant is adjudged bankrupt or insolvent as a result of any such proceeding.

During the continuation of any Event of Default, (a) Landlord shall not be obligated to provide Tenant with any notice pursuant to Section 27 below; and (b) Tenant shall not have the right to make, nor to request Landlord's consent or approval with respect to, any Alterations.

19.2 **Remedies Upon Event of Default**. Upon the occurrence of any Event of Default by Tenant, Landlord shall have, in addition to any other remedies available to Landlord at law or in equity (all of which remedies shall be distinct, separate and cumulative), the option to pursue any one or more of the following remedies (including during any eviction moratorium, to the extent allowed by Legal Requirements), each and all of which shall be cumulative and nonexclusive, without any notice or demand whatsoever.

19.2.1 Terminate this Lease, in which event Tenant shall immediately surrender the Premises to Landlord, and if Tenant fails to do so, Landlord may, without prejudice to any other remedy which it may have for possession or arrearages in rent, enter upon and take possession of the Premises and expel or remove Tenant and any other person who may be occupying the Premises or any part thereof, without being liable for prosecution or any claim or damages therefor; and Landlord may recover from Tenant the following:

(i) The worth at the time of award of the unpaid rent which has been earned at the time of such termination; plus

(ii) The worth at the time of award of the amount by which the unpaid rent which would have been earned after termination until the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iii) The worth at the time of award of the amount by which the unpaid rent for the balance of the Lease Term after the time of award exceeds the amount of such rental loss that Tenant proves could have been reasonably avoided; plus

(iv) Any other amount necessary to compensate Landlord for all the detriment proximately caused by Tenant's failure to perform its obligations under this Lease or which in the ordinary course of things would be likely to result therefrom, specifically including brokerage commissions and advertising expenses incurred, expenses of remodeling the Premises or any portion thereof for a new tenant, whether for the same or a different use, and any special concessions made to obtain a new tenant; and

(v) At Landlord's election, such other amounts in addition to or in lieu of the foregoing as may be permitted from time to time by Legal Requirements.

The term "**rent**" as used in this Section 19.2 shall be deemed to be and to mean all sums of every nature required to be paid by Tenant pursuant to the terms of this Lease, whether to Landlord or to others, and shall be calculated on the assumption that all additional rent would have increased at the rate of five percent (5%) per annum. As used in Sections 19.2.l(i) and (ii) above, the "**worth at the time of award**" shall be computed by allowing interest at the rate set forth in Article 25 of this Lease, but in no case greater than the maximum amount of such interest permitted by law. As used in Section 19.2.l(iii) above, the "**worth at the time of award**" shall be computed by discounting such amount at the discount rate of the Federal Reserve Bank of San Francisco at the time of award plus one percent (1%).

In lieu of the foregoing damages and in lieu of full recovery by Landlord of all sums payable under all the foregoing provisions of this Section 19.2.1, Landlord may, by written notice to Tenant, at any time after this Lease is terminated for breach of any obligation of Tenant and before such full recovery, elect to recover, and Tenant shall thereupon pay, as liquidated damages, an amount equal to the aggregate of (x) an amount equal to the lesser of (1) Rent accrued under this Lease in the twelve (12) months immediately prior to such termination, or (2) Rent payable during the remaining months of the Lease Term if this Lease had not been terminated, plus (y) the amount of Rent accrued and unpaid at the time of termination, less (z) the amount of any recovery by Landlord under the foregoing provisions of this Section 19.2.1 up to the time of payment of such liquidated damages; Tenant hereby acknowledging that the damages which Landlord may suffer as the result of the termination of this Lease as a result of an Event of Default cannot be determined as of the Execution Date.

Suit or suits for the recovery of such damages, or any installments thereof, may be brought by Landlord from time to time at its election, and nothing contained herein shall be deemed to require Landlord to postpone suit until the date when the Lease Term would have expired if it had not been terminated hereunder.

19.2.2 Landlord may, from time to time, without terminating this Lease, enforce all of its rights and remedies under this Lease, including the right to recover all rent as it becomes due.

19.2.3 Landlord shall at all times have the rights and remedies (which shall be cumulative with each other and cumulative and in addition to those rights and remedies available under Sections 19.2.1 and 19.2.2, above, or any law or other provision of this Lease), without prior demand or notice except as required by Legal Requirements, to seek any declaratory, injunctive or other equitable relief, and specifically enforce this Lease, or restrain or enjoin a violation or breach of any provision hereof.

19.3 **Subleases of Tenant**. Whether or not Landlord elects to terminate this Lease on account of any Event of Default by Tenant, as set forth in this Article 19, Landlord shall have the right to terminate any and all subleases, licenses, concessions or other consensual arrangements for possession entered into by Tenant and affecting the Premises or may, in Landlord's sole discretion, succeed to Tenant's interest in such subleases, licenses, concessions or arrangements. In the event of Landlord's election to succeed to Tenant's interest in any such subleases, licenses, concessions or arrangements, Tenant shall, as of the date of notice by Landlord of such election, have no further right to or interest in the rent or other consideration receivable thereunder.

19.4 **Efforts to Relet**. No re-entry or repossession, repairs, maintenance, changes, alterations and additions, reletting, appointment of a receiver to protect Landlord's interests hereunder, or any other action or omission by Landlord shall be construed as an election by Landlord to terminate this Lease or Tenant's right to possession, or to accept a surrender of the Premises, nor shall same operate to release Tenant in whole or in part from any of Tenant's obligations hereunder, unless express written notice of such intention is sent by Landlord to Tenant.

19.5 **Landlord Default**. Landlord shall not be in default under this Lease unless Landlord fails to perform any of its obligations hereunder and such failure continues for thirty (30) days after Tenant delivers to Landlord written notice specifying such failure; however, if such failure cannot reasonably be cured within such 30-day period, but Landlord commences to cure such failure within such 30-day period and thereafter diligently pursues the curing thereof to completion, then Landlord shall not be in default hereunder or liable for damages therefor. Except where the provisions of this Lease grant Tenant an express, exclusive remedy, or expressly deny Tenant a remedy, Tenant's exclusive remedy for Landlord's failure to perform its obligations under this Lease shall be limited to damages, injunctive relief, or specific performance; and in each case, Landlord's liability or obligations with respect to any such remedy shall be limited as provided in Section 29.13. Tenant shall not have the right to terminate or cancel this Lease or to withhold rent or to set-off or deduct any claim or damages against rent as a result of any default by Landlord or breach by Landlord of its obligations hereunder, except in the case of a wrongful eviction of Tenant from the Premises (constructive or actual) by Landlord, and then only if the same continues after notice to Landlord thereof and an opportunity for Landlord to cure the same as set forth above.

20. COVENANT OF QUIET ENJOYMENT

Landlord covenants that Tenant, on paying the Rent, charges for services and other payments herein reserved and on keeping, observing and performing all the other terms, covenants, conditions, provisions and agreements herein contained on the part of Tenant to be kept, observed and performed, shall, during the Lease Term, peaceably and quietly have, hold and enjoy the Premises subject to the terms, covenants, conditions, provisions and agreements hereof without interference by any persons lawfully claiming by or through Landlord. The foregoing covenant is in lieu of any other covenant express or implied.

21. LETTER OF CREDIT.

21.1 **Amount**. No later than ten (10) business days after the date of Tenant's execution of this Lease, Tenant shall deposit with Landlord an irrevocable letter of credit which shall (a) be in the amount set forth in Section 7 of the Summary and otherwise in the form attached hereto as Exhibit G and incorporated herein; (b) issued by a FDIC insured financial institution (i) reasonably acceptable to Landlord upon which presentment may be made in Boulder, CO (if Landlord so requires at the time of its approval thereof) or by facsimile, and (ii) which is either JP Morgan Chase Bank or such other FDIC-insured financial institution that satisfies the Minimum Rating Agency Threshold and the Minimum Capital Threshold; and (c) be for a term of one (1) year, subject to extension in accordance with the terms hereof (the "**Letter of Credit**"). The Letter of Credit shall be held by Landlord, without liability for interest, as security for the faithful performance by Tenant of all of the terms, covenants and conditions of this Lease by the Tenant to be kept and performed during the Lease Term. In no event shall the Letter of Credit be deemed to be a prepayment of Rent nor shall it be considered a measure of liquidated damages. Unless the Letter of Credit is automatically renewing, at least thirty (30) days prior to the maturity date of the Letter of Credit (or any replacement Letter of Credit), Tenant shall deliver to Landlord a replacement Letter of Credit which shall have a maturity date no earlier than the next anniversary of the Lease Commencement Date or one (1) year from its date of delivery to Landlord, whichever is later.

21.2 **Application of Proceeds of Letter of Credit**. Upon an Event of Default, or if any proceeding shall be instituted by or against Tenant pursuant to any of the provisions of any Act of Congress or State law relating to bankruptcy, reorganizations, arrangements, compositions or other relief from creditors (and, in the case of any proceeding instituted against it, if Tenant shall fail to have such proceedings dismissed within forty-five (45) days) or if Tenant is adjudged bankrupt or insolvent as a result of any such proceeding, or upon the end of the Lease Term if there remains any uncured default of which Tenant shall have received notice, Landlord at its sole option may draw down all or a part of the Letter of Credit. The balance of any Letter of Credit cash proceeds shall be held in accordance with Section 21.5 below. Should the entire Letter of Credit, or any portion thereof, be drawn down by Landlord, Tenant shall, upon the written demand of Landlord, deliver a replacement Letter of Credit in the amount drawn, and Tenant's failure to do so within twenty (20) days after receipt of such written demand shall constitute an additional Event of Default hereunder. The application of all or any part of the cash proceeds of the Letter of Credit to any obligation or default of Tenant under this Lease shall not deprive Landlord of any other rights or remedies Landlord may have nor shall such application by Landlord constitute a waiver by Landlord. Should Tenant comply with all of its obligations hereunder, the Letter of Credit shall be returned to the issuer thereof within sixty (60) days after the end of the Lease Term.

21.3 **Transfer of Letter of Credit**. In the event that Landlord transfers its interest in the Premises, Tenant shall, upon notice from and at no cost to Landlord, reasonably cooperate with Landlord in connection with its efforts to assign the beneficiary's interest under and to the Letter of Credit to Landlord's successor. If Landlord is unable to assign such interest, Tenant shall, upon notice from and at no cost to Landlord, deliver to Landlord a replacement Letter of Credit naming Landlord's successor as the beneficiary thereof. If Tenant fails to deliver such replacement within thirty (30) days after written notice from Landlord, Landlord shall have the right to draw down the entire amount of the Letter of Credit and hold the proceeds thereof in accordance with Section 21.5 below.

21.4 **Credit of Issuer of Letter of Credit**. The "**Minimum Rating Agency Threshold**" shall mean that the issuing bank has outstanding unsecured, uninsured and unguaranteed senior long-term indebtedness that is then rated (without regard to qualification of such rating by symbols such as "+" or "-" or numerical notation) "Baa" or better by Moody's Investors Service, Inc. and/or "BBB" or better by Standard & Poor's Rating Services, or a comparable rating by a comparable national rating agency designated by Landlord in its discretion. The "**Minimum Capital Threshold**" shall mean that the issuing bank has combined capital, surplus and undivided profits of not less than $10,000,000,000. If the issuer of the Letter of Credit fails to satisfy either or both of the Minimum Rating Agency Threshold or the Minimum Capital Threshold, Tenant shall be required to deliver a substitute letter of credit from another issuer reasonably satisfactory to the Landlord and that satisfies both the Minimum Rating Agency Threshold and the Minimum Capital Threshold not later than twenty (20) days after Landlord notifies Tenant of such failure.

21.5 **Security Deposit**. Landlord shall hold the balance of proceeds remaining after a draw on the Letter of Credit (herein referred to as the "**Security Deposit**") as security for the faithful performance by Tenant of all of its obligations under this Lease. Upon an Event of Default, or upon the end of the Lease Term if there remains any uncured default of which Tenant shall have received notice, Landlord may, without notice to Tenant (but shall not be required to) apply all or any part of the Security Deposit for the payment of any Rent or any other sum in default without prejudice to any other Landlord remedy, and to the extent so applied Tenant shall, upon demand therefor, restore the Security Deposit to its original amount (including during any eviction moratorium, to the extent allowed by Legal Requirements), and Tenant's failure to do so within twenty (20) days after receipt of such written demand shall constitute an additional default hereunder without further notice or opportunity to cure. Tenant shall have the right to deliver a replacement Letter of Credit in the form and amount required hereunder, and upon receipt of such replacement Letter of Credit, Landlord shall return the Security Deposit to Tenant. Landlord has no obligation to pay interest on the Security Deposit and may co-mingle the Security Deposit with Landlord's funds. If Landlord conveys its interest under this Lease, the Security Deposit, or any part not applied previously, may be turned over to the grantee in which case Tenant shall look solely to the grantee for the proper application and return of the Security Deposit. Any unapplied portion of the Security Deposit shall be returned to Tenant, or, at Landlord's option, to the last assignee of Tenant's interest hereunder, within sixty (60) days following the expiration of the Lease Term.

21.6 **Reduction**. Provided that (a) as of each applicable "**Reduction Date**," as set forth below, Tenant is not in default of any of its obligations hereunder (it being understood and agreed that if Tenant cures any such default prior to the expiration of the applicable notice and/or cure periods set forth in Section 19.1 below, Tenant shall then be entitled to effectuate such reduction, subject to satisfaction of the following conditions (b) and (c)), (b) there is no material adverse change in Tenant's tangible net worth (i.e., total assets, less intangible assets, less total liabilities, as evidenced by either (1) publicly available annual report(s) or SEC or other public filings, or (2) financial statements (audited, if available; and if not available, then certified as being true, complete and correct by Tenant's Treasurer or Chief Financial Officer) prepared in accordance with GAAP and delivered to Landlord with the notice of such assignment), and (c) after the applicable Reduction Date, Tenant tenders to Landlord an amendment to the existing Letter of Credit, conforming in all respects to the requirements of this Article 21 and otherwise reasonably acceptable to Landlord, in the amount of the applicable New Letter of Credit Amount as of the applicable Reduction Date, the Letter of Credit Amount shall be reduced in accordance with the following schedule:

Reduction Date	New Letter of Credit Amount
First day of the eighteenth (18th) full calendar month	$ 215,000.00
First day of the thirtieth (30th) full calendar month	$ 165,000.00
First day of the forty-second (42nd) full calendar month	$ 115,000.00
First day of the fifty-fourth (54th) full calendar month	$ 65,000.00

22. **INTENTIONALLY OMITTED.**

23. **SIGNS**

23.1 **Entry Signage**. Tenant shall have the right to install Building standard signage identifying Tenant's business at the entrance to the Premises, which signage shall be (a) at Tenant's sole cost and expense, and (b) subject to Landlord's prior written consent (which consent shall not be unreasonably withheld, conditioned or delayed).

23.2 **Building Directory**. Landlord shall list Tenant within the Building lobby directory at Landlord's sole cost and expense.

23.3 **Prohibited Signage and Other Items**. Except as expressly permitted pursuant to this Article 23, Tenant may not install any sign, banner, advertising matter or any other thing of any kind (including any hand-lettered advertising) on the exterior of the Premises, or any part of the interior visible from the exterior thereof, and shall not place or maintain any decoration, letter or advertising matter on the glass of any window or door of the Premises. Any signs, window coverings, or blinds (even if the same are located behind the Landlord-approved window coverings for the Building), or other items visible from the exterior of the Premises or Building, shall be subject to the prior approval of Landlord, in its sole discretion. Any signs, notices, logos, pictures, names or advertisements which are installed and that have not been separately approved by Landlord may be removed without notice by Landlord at the sole expense of Tenant.

24. COMPLIANCE WITH LAW

24.1 **Legal Requirements**. Tenant shall not do anything or suffer anything to be done in or about the Premises or the Project which will in any way conflict with any law, statute, ordinance or other rule, directive, order, regulation, guideline or requirement of any local, state or federal governmental entity or governmental agency (the "**Legal Requirements**") now in force or which may hereafter be enacted or promulgated. At its sole cost and expense, Tenant shall promptly comply with all Legal Requirements. Should any standard or regulation now or hereafter be imposed on Landlord or Tenant by a state, federal or local governmental body charged with the establishment, regulation and enforcement of occupational, health or safety standards for employers, employees, landlords or tenants, then Tenant agrees, at its sole cost and expense, to comply promptly with such standards or regulations. Tenant shall be responsible, at its sole cost and expense, to make all alterations to the Building and Premises as are required to comply with the governmental rules, regulations, requirements or standards described in this Article 24. The judgment of any court of competent jurisdiction or the admission of Tenant in any judicial action, regardless of whether Landlord is a party thereto, that Tenant has violated any of said governmental measures, shall be conclusive of that fact as between Landlord and Tenant. Tenant shall furnish all data and information to governmental authorities, with a copy to Landlord, as required in accordance with Legal Requirements as they relate to Tenant's use or occupancy of the Premises or the Building. Notwithstanding anything in this Lease to the contrary, Tenant shall not have any responsibility at any time during the Lease Term for the compliance of Tenant's Fitout with Legal Requirements in effect as of the Lease Commencement Date.

24.2 **Permits**. Tenant shall, at Tenant's sole cost and expense, apply for, seek and obtain prior to the date on which Tenant commences occupancy of all or any portion of the Premises all necessary state and local licenses, permits and approvals needed for the operation of Tenant's business in the Premises, including any and all necessary permits and approvals directly or indirectly relating or incident to the conduct of its activities on the Premises, its scientific experimentation, transportation, storage, handling, use and disposal of any Hazardous Materials or laboratory specimens (collectively, the "**Required Permits**"). Tenant shall thereafter maintain all Required Permits. Tenant, at Tenant's expense, shall at all times comply with the terms and conditions of each Required Permit. Within ten (10) business days of request by Landlord, Tenant shall furnish Landlord with copies of all Required Permits that Tenant has obtained together with a certificate certifying that such permits are all of the permits that Tenant has obtained with respect to the Premises.

25. LATE CHARGES

If any installment of Rent or any other sum due from Tenant shall not be received by Landlord or Landlord's designee within five (5) business days after Tenant's receipt of written notice from Landlord that said amount is due, then Tenant shall pay to Landlord, as additional rent, a late charge equal to five percent (5%) of the overdue amount plus any reasonable attorneys' fees incurred by Landlord by reason of Tenant's failure to pay Rent and/or other charges when due hereunder. In addition to the late charge described above, any Rent or other amounts owing hereunder which are not paid when due shall bear interest from the date when due until paid at a rate per annum equal to the lesser of (i) ten percent (10%) per annum, and (ii) the highest rate permitted by Legal Requirements. Acceptance of such late charge, such interest or any partial payment shall not (a) constitute a waiver of Tenant's default with respect to the overdue amount, (b) be construed as liquidated damages or as limiting Landlord's remedies in any manner, (c) prevent Landlord from exercising any of the other rights and remedies available to Landlord under this Lease or at law or in equity now or hereafter in effect. Notwithstanding the foregoing, Landlord shall waive the late charge with respect to the first late payment in any calendar year if paid within five (5) business days after notice from Landlord to Tenant that such payment is past due.

26. LANDLORD'S RIGHT TO CURE DEFAULT; PAYMENTS BY TENANT

26.1 **Landlord's Cure**. All covenants and agreements to be kept or performed by Tenant under this Lease shall be performed by Tenant at Tenant's sole cost and expense and without any reduction of Rent, except to the extent, if any, otherwise expressly provided herein. If Tenant shall fail to perform any obligation under this Lease, and such failure shall continue in excess of the time allowed under Section 19.1.2, above, unless a specific time period is otherwise stated in this Lease, Landlord may, but shall not be obligated to, make any such payment or perform any such act on Tenant's part without waiving its rights based upon any default of Tenant and without releasing Tenant from any obligations hereunder. Notwithstanding the foregoing, in emergency situations, Landlord may make any such payment or perform any such act on Tenant's part prior to the expiration of the time allowed under Section 19.1.2.

26.2 **Tenant's Reimbursement**. Except as may be specifically provided to the contrary in this Lease, Tenant shall pay to Landlord, upon delivery by Landlord to Tenant of statements therefor: (i) sums equal to expenditures reasonably made and obligations incurred by Landlord in connection with the remedying by Landlord of Tenant's defaults pursuant to the provisions of Section 26.1; (ii) sums equal to all losses, costs, liabilities, damages and expenses referred to in Article 10 of this Lease; and (iii) sums equal to all expenditures made and obligations incurred by Landlord in collecting or attempting to collect the Rent or in enforcing or attempting to enforce any rights of Landlord under this Lease or pursuant to law, including all reasonable legal fees and other amounts so expended. Tenant's obligations under this Section 26.2 shall survive the expiration or sooner termination of the Lease Term.

27. ENTRY BY LANDLORD

Landlord reserves (for itself and its Mortgagees and designees) the right upon not less than forty-eight (48) hours prior written notice to Tenant (except that no notice shall be required in the case of an emergency) to enter the Premises to (i) inspect them; (ii) show the Premises to prospective purchasers, or to current or prospective capital partners, investors, Mortgagees, ground or underlying lessors and/or insurers or, during the last twelve (12) months of the Lease Term, to prospective tenants; (iii) post notices of nonresponsibility (to the extent applicable pursuant to then-applicable Legal Requirements); (iv) alter, improve or repair the Premises, the Building or the Building's Systems and equipment, or for structural alterations, repairs or improvements to the Building; (v) intentionally omitted; (vi) preserve the walls or structures of the Building from injury, and to protect the Building by proper securing of foundations in case any excavation shall be made for building or improvements or for any other purpose upon the land adjacent to or near the Premises; and/or (vii) exercise any right of Landlord under this Lease. In addition, to the extent that it is necessary to enter the Premises in order to access any area that serves any portion of the Building outside the Premises, then Tenant shall, upon as much advance notice as is practical under the circumstances, and in any event at least twenty-four (24) hours' prior written notice (except that no notice shall be required in emergency situations), permit contractors engaged by other occupants of the Building to pass through the Premises in order to access such areas but only if accompanied by a representative of Landlord. Landlord may make any such entries without the abatement of Rent and may take such reasonable steps as required to accomplish the stated purposes. Tenant hereby waives any claims for damages or for any injuries or inconvenience to or interference with Tenant's business, lost profits, any loss of occupancy or quiet enjoyment of the Premises, and any other loss occasioned thereby. For each of the above purposes, Landlord shall at all times have a key or pass code with which to unlock all the doors in the Premises. In an emergency, Landlord shall have the right to use any means that Landlord may deem proper to open any and all doors in and to the Premises. Any entry into the Premises by Landlord in the manner hereinbefore described shall not be deemed to be a forcible or unlawful entry into, or a detainer of, the Premises, or an actual or constructive eviction of Tenant from any portion of the Premises. Landlord shall use commercially reasonable efforts to minimize any unreasonable interference with Tenant's use and occupancy of, and access to, the Premises in connection with the exercise of Landlord's rights pursuant to this Article 27. Notwithstanding anything to the contrary, notice required by this Article 27 may be delivered via electronic mail to the email address(es) designated by Tenant from time to time for such purpose and shall not be required to be sent to the parties listed in or designated pursuant to Section 29.18 of the Lease. Tenant hereby agrees to provide such email address(es) to Landlord promptly upon Landlord's request therefor (and the email address(es) provided may be used by Landlord until Tenant notifies Landlord of any change(s) thereto).

28. **TENANT PARKING**

Tenant shall have the right to use, commencing on the Lease Commencement Date, the amount of parking passes set forth in Section 8 of the Summary, on a monthly basis throughout the Lease Term, for unreserved parking of passenger vehicles by employees of Tenant (and employees of any other permitted occupants of the Premises) in the Project parking area(s) designated by Landlord. Tenant's continued right to use the parking passes is conditioned upon Tenant abiding by all rules and regulations which are prescribed from time to time for the orderly operation and use of the applicable parking facility (including any sticker or other identification system and the prohibition of vehicle repair and maintenance activities in the Project's parking areas), Tenant's cooperation in seeing that Tenant's employees and visitors also comply with such rules and regulations and there being no continuing Event of Default under this Lease. Tenant shall provide Landlord and/or the operator of the Project parking facility with such information as may be reasonably requested, including a monthly identification roster listing, for each parking pass, the name of the employee and the make, color and registration number of the vehicle to which it has been assigned. Reserved and handicap parking spaces must be honored. No bailment is intended or shall be created by the provision of, or use of, the parking privileges described herein. Tenant's use of the Project parking area shall be at Tenant's sole risk and Tenant acknowledges and agrees that Landlord shall have no liability whatsoever for damage to the vehicles of Tenant, its employees and/or visitors, or for other personal injury or property damage or theft relating to or connected with the parking rights granted herein or any of Tenant's, its employees' and/or visitors' use of the parking facilities. Tenant's rights hereunder are subject to the terms of any Underlying Documents. Landlord specifically reserves the right to change the size, configuration, design, layout and all other aspects of the Project parking facility at any time and Tenant acknowledges and agrees that Landlord may, without incurring any liability to Tenant and without any abatement of Rent under this Lease, from time to time, close-off or restrict access to the Project parking facility for purposes of permitting or facilitating any such construction, alteration or improvements. Landlord may delegate its responsibilities hereunder to a parking operator in which case such parking operator shall have all the rights of control attributed hereby to the Landlord. The parking passes rented by Tenant pursuant to this Article 28 are provided to Tenant solely for use by Tenant's own personnel and except in connection with a Transfer permitted in accordance with Article 14 above, such passes may not be transferred, assigned, subleased or otherwise alienated by Tenant without Landlord's prior approval. Tenant may validate visitor parking by such method or methods as the Landlord may establish, at the validation rate from time to time generally applicable to visitor parking.

29. **MISCELLANEOUS PROVISIONS**

29.1 **Terms; Captions**. The words "**Landlord**" and "**Tenant**" as used herein shall include the plural as well as the singular. The normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Lease or any exhibits or amendments hereto. Unless expressly stated otherwise, the use of the word "**including**" and "**include**" in this Lease shall be deemed to mean "**including without limitation**" and "**include without limitation**" in each instance. The necessary grammatical changes required to make the provisions hereof apply either to corporations or partnerships or individuals, men or women, as the case may require, shall in all cases be assumed as though in each case fully expressed. The captions of Articles and Sections are for convenience only and shall not be deemed to limit, construe, affect or alter the meaning of such Articles and Sections.

29.2 **Binding Effect**. Subject to all other provisions of this Lease, each of the covenants, conditions and provisions of this Lease shall extend to and shall, as the case may require, bind or inure to the benefit not only of Landlord and of Tenant, but also of their respective heirs, personal representatives, successors or assigns, provided this clause shall not permit any assignment by Tenant contrary to the provisions of Article 14 of this Lease.

29.3 **No Air Rights**. No rights to any view or to light or air over any property, whether belonging to Landlord or any other person, are granted to Tenant by this Lease. If at any time any windows of the Premises are temporarily darkened or the light or view therefrom is obstructed by reason of any repairs, improvements, maintenance or cleaning in or about the Project, the same shall be without liability to Landlord and without any reduction or diminution of Tenant's obligations under this Lease.

29.4 **Modification of Lease**. Should any current or prospective Mortgagee for the Building or Project require a modification of this Lease, which modification will not cause an increased cost or expense to Tenant or in any other way materially and adversely change the rights and obligations of Tenant hereunder, then and in such event, Tenant agrees that this Lease may be so modified and agrees to execute whatever documents are reasonably required therefor and to deliver the same to Landlord within ten (10) business days following a request therefor.

29.5 **No Recording**. Neither this Lease nor any memorandum, affidavit or other writing with respect thereto shall be recorded by Tenant or by anyone acting through, under or on behalf of Tenant.

29.6 **Transfer of Landlord's Interest**. Tenant acknowledges that Landlord has the right to transfer all or any portion of its interest in the Project or Building and in this Lease, and Tenant agrees that in the event of any such transfer, Landlord shall automatically be released from all liability under this Lease and Tenant agrees to look solely to such transferee for the performance of Landlord's obligations hereunder after the date of transfer and such transferee shall be deemed to have fully assumed and be liable for all obligations of this Lease to be performed by Landlord, including the return of any Security Deposit, and Tenant shall attorn to such transferee.

29.7 **Landlord's Title**. Landlord's title is and always shall be paramount to the title of Tenant. Nothing herein contained shall empower Tenant to do any act which can, shall or may encumber the title of Landlord.

29.8 **Relationship of Parties**. Nothing contained in this Lease shall be deemed or construed by the parties hereto or by any third party to create the relationship of principal and agent, partnership, joint venturer or any association between Landlord and Tenant.

29.9 **Application of Payments**. Landlord shall have the right to apply payments received from Tenant pursuant to this Lease, regardless of Tenant's designation of such payments, to satisfy any obligations of Tenant hereunder, in such order and amounts as Landlord, in its sole discretion, may elect.

29.10 **Time of Essence**. Time is of the essence with respect to the performance of every provision of this Lease in which time of performance is a factor.

29.11 **Partial Invalidity**. If any term, provision or condition contained in this Lease shall, to any extent, be invalid or unenforceable, the remainder of this Lease, or the application of such term, provision or condition to persons or circumstances other than those with respect to which it is invalid or unenforceable, shall not be affected thereby, and each and every other term, provision and condition of this Lease shall be valid and enforceable to the fullest extent possible permitted by law.

29.12 **No Warranty**. In executing and delivering this Lease, Tenant has not relied on any representations, including any representation as to the amount of any item comprising Additional Rent or the amount of the Additional Rent in the aggregate or that Landlord is furnishing the same services to other tenants, at all, on the same level or on the same basis, or any warranty or any statement of Landlord which is not set forth herein or in one or more of the exhibits attached hereto.

29.13 **Landlord and Tenant Exculpation**. The liability of Landlord or the Landlord Parties to Tenant for any default by Landlord under this Lease or arising in connection herewith or with Landlord's operation, management, leasing, repair, renovation, alteration or any other matter relating to the Project or the Premises shall be limited solely and exclusively to an amount which is equal to the lesser of (a) the interest of Landlord in the Building or (b) the equity interest Landlord would have in the Building if the Building were encumbered by third-party debt in an amount equal to eighty percent (80%) of the value of the Building (as such value is determined by Landlord), provided that in no event shall such liability extend to any sales or insurance proceeds received by Landlord or the Landlord Parties in connection with the Project, Building or Premises. Neither Landlord, nor any of the Landlord Parties shall have any personal liability therefor, and Tenant hereby expressly waives and releases such personal liability on behalf of itself and all persons claiming by, through or under Tenant. The limitations of liability contained in this Section 29.13 shall inure to the benefit of Landlord's and the Landlord Parties' present and future partners, beneficiaries, officers, directors, trustees, shareholders, agents and employees, and their respective partners, heirs, successors and assigns. Under no circumstances shall any present or future partner of Landlord (if Landlord is a partnership), or trustee or beneficiary (if Landlord or any partner of Landlord is a trust), have any liability for the performance of Landlord's obligations under this Lease. Notwithstanding any contrary provision herein, neither Landlord nor the Landlord Parties shall be liable under any circumstances for injury or damage to, or interference with, Tenant's business, including loss of profits, loss of rents or other revenues, loss of business opportunity, loss of goodwill or loss of use, in each case, however occurring, or loss to inventory, scientific research, scientific experiments, products, specimens, samples, and/or scientific, business, accounting and other records of every kind and description kept at the premises and any and all income derived or derivable therefrom. Furthermore, in no event shall Landlord or any Landlord Party be liable for any consequential, indirect, special, incidental or punitive damages. In no event shall Tenant be liable for any consequential, indirect, special, incidental or punitive damages except Tenant shall be liable for consequential damages (a) in connection with any Release of Hazardous Materials by Tenant or any other Tenant Party in, on, at or about the Premises; (b) in connection with any holdover as set forth in Article 16 above, and (c) to the extent that Landlord or any other Landlord Party is found liable for such damages and Tenant is obligated by the terms of this Lease to reimburse, indemnify or hold such party harmless with respect to the Claim giving rise to such finding.

29.14 **Entire Agreement**. It is understood and acknowledged that there are no oral agreements between the parties hereto affecting this Lease and this Lease constitutes the parties' entire agreement with respect to the leasing of the Premises and supersedes and cancels any and all previous negotiations, arrangements, brochures, agreements and understandings, if any, between the parties hereto or displayed by Landlord to Tenant with respect to the subject matter thereof, and none thereof shall be used to interpret or construe this Lease. None of the terms, covenants, conditions or provisions of this Lease can be modified, deleted or added to except in writing signed by the parties hereto, provided that no amendment or modification may be effected by text message, electronic mail or similar communication.

29.15 **Right to Lease**. Landlord reserves the absolute right to effect such other tenancies in the Project as Landlord in the exercise of its sole business judgment shall determine to best promote the interests of the Building or Project. Tenant does not rely on the fact, nor does Landlord represent, that any specific tenant or type or number of tenants shall, during the Lease Term, occupy any space in the Building or Project.

29.16 **Force Majeure**. Notwithstanding anything to the contrary contained in this Lease, any prevention, delay or stoppage due to strikes, lockouts, labor disputes, acts of God, acts of war, terrorist acts, inability to obtain services, labor, or materials or reasonable substitutes therefor, governmental actions, civil commotions, Casualty, actual or threatened public health emergency (including epidemic, pandemic, famine, disease, plague, quarantine, and other significant public health risk), governmental edicts, actions, declarations or quarantines by a governmental entity or health organization (including any shelter-in-place orders, stay at home orders or any restrictions on travel related thereto that preclude either party, its agents, contractors or its employees from accessing the Premises, national or regional emergency), breaches in cybersecurity, and other causes beyond the reasonable control of the party obligated to perform, regardless of whether such other causes are (i) foreseeable or unforeseeable or (ii) related to the specifically enumerated events in this paragraph (collectively, a "**Force Majeure**"), shall excuse the non-monetary performance of such party for a period equal to any such prevention, delay or stoppage. If this Lease specifies a time period for performance of a non-monetary obligation of either party, that time period shall be extended by the period of any delay in such party's performance caused by a Force Majeure. Notwithstanding anything to the contrary in this Lease, in no event shall financial inability be deemed to be, or be a cause of, an event of Force Majeure, and no event of Force Majeure shall (i) excuse Tenant's obligations to pay Rent and other charges due pursuant to this Lease, (ii) be grounds for Tenant to abate any portion of Rent due pursuant to this Lease, or entitle either party to terminate this Lease, except as allowed pursuant to Articles 11 and 13 of this Lease, (iii) excuse Tenant's obligations under Article 10 of this Lease, or (iv) extend the occurrence of the Rent Commencement Date.

29.17 **Waiver of Redemption by Tenant**. Tenant hereby waives, for Tenant and for all those claiming under Tenant, any and all rights now or hereafter existing to redeem by order or judgment of any court or by any legal process or writ, Tenant's right of occupancy of the Premises after any termination of this Lease or to have a continuance of this Lease for the Lease Term hereby demised after being dispossessed or ejected therefrom by process of law or under the terms of this Lease or after the termination of this Lease as herein provided. Except to the extent prohibited by Legal Requirements, any statutory notice and grace periods provided to Tenant by law are hereby expressly waived by Tenant.

29.18 **Notices**. All notices, demands, statements, designations, approvals or other communications (collectively, "**Notices**") given or required to be given by either party to the other hereunder or by law shall be in writing, shall be (A) sent by United States certified or registered mail, postage prepaid, return receipt requested ("**Mail**"), (B) delivered by a nationally recognized overnight courier, or (C) delivered personally. Any Notice shall be sent, transmitted, or delivered, as the case may be, to Tenant at the appropriate address set forth in Section 9 of the Summary, or to such other address in the United States (and not a post office box) as Tenant may from time to time designate in a Notice to Landlord at the addresses set forth below, or to such other address(es) in the United States (and not a post office box) as Landlord may from time to time designate in a Notice to Tenant. Any Notice will be deemed given (i) three (3) days after the date it is posted if sent by Mail, (ii) the date the overnight courier delivery is made or refused, or (iii) the date personal delivery is made or refused. As of the Execution Date, any Notices to Landlord must be sent, transmitted, or delivered, as the case may be, to the following addresses:

c/o Beacon Capital Partners, LLC
200 State Street, 5th Floor
Boston, Massachusetts 02109
Attention: General Counsel

and

Goulston & Storrs PC
400 Atlantic Avenue
Boston, MA 02110
Attention: Colleen P. Hussey, Esq.

Any notice given by an attorney on behalf of a party shall be considered as given by such party and shall be fully effective. Notwithstanding the foregoing, any notice from Landlord to Tenant regarding ordinary business operations (e.g., exercise of a right of access to the Premises, maintenance activities, invoices, etc.) may also be given by written notice delivered by facsimile or electronic mail to any person at the Premises whom Landlord reasonably believes is authorized to receive such notice on behalf of Tenant without being delivered in the manner specified above.

29.19 **Joint and Several**. If there is more than one tenant, the obligations imposed upon Tenant under this Lease shall be joint and several.

29.20 **Authority**. Tenant hereby guarantees, warrants and represents to Landlord that (i) Tenant is duly incorporated or otherwise established or formed and validly existing under the laws of its state of incorporation, establishment or formation, (ii) Tenant has and is duly qualified to do business in the state in which the Premises are located, (iii) Tenant has full corporate, partnership, trust, limited liability company or other appropriate power and authority to enter into this Lease and to perform all of Tenant's obligations hereunder, (iv) each person (and all of the persons if more than one signs) signing this Lease on behalf of Tenant is duly and validly authorized to do so; and (v) neither the execution, delivery or performance of this Lease, nor the consummation of the transactions contemplated hereby, will violate or conflict with any provision of documents or instruments under which Tenant is constituted or to which Tenant is a party. Tenant shall, within ten (10) business days after Tenant's receipt of Landlord's written request therefor, deliver to Landlord satisfactory evidence of good standing in Tenant's state of incorporation and qualification to do business in the State of Colorado.

29.21 **Attorneys' Fees**. In the event that either Landlord or Tenant should bring suit for the possession of the Premises, for the recovery of any sum due under this Lease, or because of the breach of any provision of this Lease or for any other relief against the other, then all costs and expenses, including reasonable attorneys' fees, incurred by the prevailing party therein shall be paid by the other party, which obligation on the part of the other party shall be deemed to have accrued on the date of the commencement of such action and shall be enforceable whether or not the action is prosecuted to judgment.

29.22 **GOVERNING LAW; WAIVER OF TRIAL BY JURY**. This Lease shall be construed and enforced in accordance with the laws of the State of Colorado. IN ANY ACTION OR PROCEEDING ARISING OUT OF THIS LEASE OR ANY OTHER INSTRUMENT, DOCUMENT, OR AGREEMENT EXECUTED OR DELIVERED IN CONNECTION HEREWITH OR THE TRANSACTIONS RELATED HERETO, LANDLORD AND TENANT HEREBY CONSENT TO (I) THE JURISDICTION OF ANY COMPETENT COURT WITHIN THE STATE OF COLORADO, AND EACH PARTY CONSENTS TO PERSONAL JURISDICTION IN SUCH COURTS, (II) SERVICE OF PROCESS BY ANY MEANS AUTHORIZED BY STATE LAW, AND (III) IN THE INTEREST OF SAVING TIME AND EXPENSE, TRIAL WITHOUT A JURY. IN THE EVENT LANDLORD COMMENCES ANY SUMMARY PROCEEDINGS OR ACTION FOR NONPAYMENT OF BASE RENT OR ADDITIONAL RENT, TENANT SHALL NOT INTERPOSE ANY COUNTERCLAIM OF ANY NATURE OR DESCRIPTION (UNLESS SUCH COUNTERCLAIM SHALL BE MANDATORY) IN ANY SUCH PROCEEDING OR ACTION BUT SHALL BE RELEGATED TO AN INDEPENDENT ACTION AT LAW.

29.23 **Submission of Lease**. Submission of this instrument for examination or signature by Tenant does not constitute a reservation of, option for or option to lease, and it is not effective as a lease or otherwise until execution and delivery by both Landlord and Tenant.

29.24 **Brokers**. Landlord and Tenant hereby warrant to each other that they have had no dealings with any real estate broker or agent in connection with the negotiation of this Lease, excepting only the real estate brokers or agents specified in Section 11 of the Summary (the "**Brokers**"), and that they know of no other real estate broker or agent who is entitled to a commission in connection with this Lease. Each party agrees to indemnify and defend the other party against and hold the other party harmless from any and all Claims with respect to any leasing commission or equivalent compensation alleged to be owing on account of any dealings with any real estate broker or agent, other than the Brokers, occurring by, through, or under the indemnifying party. All commissions due to the Brokers in respect to this Lease shall be paid by Landlord pursuant to a separate agreement. The terms of this Section 29.24 shall survive the expiration or earlier termination of the Lease Term.

29.25 **Independent Covenants**. Rent shall be paid without notice or demand, and without setoff, counterclaim, defense, abatement, suspension, deferment, reduction or deduction, except as expressly provided herein. EXCEPT AS EXPRESSLY PROVIDED IN THIS LEASE, TENANT WAIVES ALL RIGHTS AT COMMON LAW, IN EQUITY OR OTHERWISE (I) TO ANY ABATEMENT, SUSPENSION, DEFERMENT, REDUCTION OR DEDUCTION OF OR FROM RENT, (II) TO QUIT, TERMINATE OR SURRENDER THIS LEASE OR THE PREMISES OR ANY PART THEREOF, AND/OR (III) TO MAKE ANY REPAIRS OR PERFORM ANY ACTS HEREUNDER AT LANDLORD'S EXPENSE. TENANT HEREBY ACKNOWLEDGES AND AGREES THAT THE OBLIGATIONS OF TENANT UNDER THIS LEASE SHALL BE SEPARATE AND INDEPENDENT COVENANTS AND AGREEMENTS, THAT RENT SHALL CONTINUE TO BE PAYABLE IN ALL EVENTS, WHETHER FORESEEN OR UNFORESEEN, AND THAT THE OBLIGATIONS OF TENANT HEREUNDER SHALL CONTINUE UNAFFECTED, UNLESS THE REQUIREMENT TO PAY OR PERFORM THE SAME SHALL HAVE BEEN TERMINATED PURSUANT TO AN EXPRESS PROVISION OF THIS LEASE. LANDLORD AND TENANT EACH ACKNOWLEDGES AND AGREES THAT THE INDEPENDENT NATURE OF THE OBLIGATIONS OF TENANT HEREUNDER REPRESENTS FAIR, REASONABLE, AND ACCEPTED COMMERCIAL PRACTICE WITH RESPECT TO THE TYPE OF PROPERTY SUBJECT TO THIS LEASE, AND THAT THIS AGREEMENT IS THE PRODUCT OF FREE AND INFORMED NEGOTIATION DURING WHICH BOTH LANDLORD AND TENANT WERE REPRESENTED BY COUNSEL SKILLED IN NEGOTIATING AND DRAFTING COMMERCIAL LEASES IN THE STATE OF COLORADO. SUCH ACKNOWLEDGEMENTS, AGREEMENTS AND WAIVERS BY TENANT ARE A MATERIAL INDUCEMENT TO LANDLORD ENTERING INTO THIS LEASE.

29.26 **Project or Building Name, Address and Signage**. Landlord shall have the right at any time to change the name and/or address of the Project or Building and to install, affix and maintain any and all signs on the exterior and on the interior of the Project or Building as Landlord may, in Landlord's sole discretion, desire. Tenant shall not use the name of the Project or Building or use pictures or illustrations of the Project or Building in advertising or other publicity or for any purpose other than as the address of the business to be conducted by Tenant in the Premises, without the prior written consent of Landlord.

29.27 **Counterparts**. This Lease may be executed in counterparts with the same effect as if both parties hereto had executed the same document. Both counterparts shall be construed together and shall constitute a single lease. Such counterparts may be delivered by the parties hereto by electronic means, including by electronic mail or facsimile transmission and, when so fully delivered, such copies shall be binding as if ink originals.

29.28 **Confidentiality**.

29.28.1 Tenant acknowledges that the content of this Lease and any related documents are confidential information. Disclosure of the terms hereof could adversely affect the ability of Landlord to negotiate other leases with respect to the Project and may impair Landlord's relationship with other tenants of the Project. Tenant shall keep such confidential information strictly confidential and shall not disclose such confidential information to any person or entity other than (a) Tenant's financial, legal, and space planning consultants, (b) in connection with any dispute between Landlord and Tenant or (c) as required by applicable law or regulation or by legal process.

29.28.2 Landlord shall keep the contents of this Lease confidential and shall not disclose such confidential information to any person or entity other than (a) in connection with Landlord's ownership, financing, sale and/or insurance of the Project or any portion thereof or any interest of Landlord therein, (b) in connection with any dispute between Landlord and Tenant or (c) as required by applicable law or regulation or by legal process.

29.28.3 It is understood and agreed that damages alone would be an inadequate remedy for the breach of this provision, and either party shall have the right to seek specific performance of this provision and to seek injunctive relief to prevent its breach or continued breach.

29.29 **Building Renovations**. It is specifically understood and agreed that Landlord has no obligation and has made no promises to alter, remodel, improve, renovate, repair or decorate the Premises, Building, or any part thereof and that no representations respecting the condition of the Premises or the Building have been made by Landlord to Tenant except as specifically set forth herein or in the Tenant Work Letter. However, Tenant hereby acknowledges that Landlord is currently renovating or may during the Lease Term renovate, improve, alter, or modify (collectively, the "**Renovations**") the Project, the Building and/or the Premises. Tenant hereby agrees that such Renovations shall in no way constitute a constructive eviction of Tenant nor entitle Tenant to any abatement of Rent. Landlord shall have no responsibility and shall not be liable to Tenant for any injury to or interference with Tenant's business arising from the Renovations, nor shall Tenant be entitled to any compensation or damages from Landlord for loss of the use of the whole or any part of the Premises or of Tenant's personal property or improvements resulting from the Renovations, or for any inconvenience or annoyance occasioned by such Renovations. In connection with any Renovations, Landlord shall use commercially reasonable efforts, consistent with accepted construction practice in light of the Permitted Use when applicable, to avoid any materially adverse interference with Tenant's access to, or use and occupancy of, the Premises.

29.30 **Communications and Computer Lines**. Tenant may install, maintain, replace, remove or use any communications or computer wires and cables serving the Premises (collectively, the "**Lines**"), provided that (i) Tenant shall obtain Landlord's prior written consent, use an experienced and qualified contractor approved in writing by Landlord, and comply with all of the other provisions of Article 7 and Article 8 of this Lease, (ii) an acceptable number of spare Lines and space for additional Lines shall be maintained for existing and future occupants of the Project, as determined in Landlord's reasonable opinion, (iii) the Lines therefor (including riser cables) shall be appropriately insulated to prevent excessive electromagnetic fields or radiation, shall be surrounded by a protective conduit reasonably acceptable to Landlord, and shall be identified in accordance with the Identification Requirements, (iv) any new or existing Lines servicing the Premises shall comply with all applicable governmental laws and regulations, (v) as a condition to permitting the installation of new Lines, Landlord may require that Tenant remove existing Lines located in or serving the Premises and repair any damage in connection with such removal, and (vi) Tenant shall pay all costs in connection therewith. All Lines shall be clearly marked with adhesive plastic labels (or plastic tags attached to such Lines with wire) to show Tenant's name, suite number, telephone number and the name of the person to contact in the case of an emergency (A) every four feet (4') outside the Premises (specifically including the electrical room risers and other Common Areas), and (B) at the Lines' termination point(s) (collectively, the "**Identification Requirements**"). Prior to the expiration or earlier termination of this Lease, Tenant shall, at Tenant's sole cost and expense, remove any Lines located in or serving the Premises.

29.31 **Office and Communications Services**.

29.31.1 **The Provider**. Landlord has advised Tenant that certain office and communications services may be offered to tenants of the Building by a concessionaire under contract to Landlord ("**Provider**"). Tenant shall be permitted to contract with Provider for the provision of any or all of such services on such terms and conditions as Tenant and Provider may agree.

29.31.2 **Other Terms**. Tenant acknowledges and agrees that: (i) Landlord has made no warranty or representation to Tenant with respect to the availability of any such services, or the quality, reliability or suitability thereof; (ii) the Provider is not acting as the agent or representative of Landlord in the provision of such services, and Landlord shall have no liability or responsibility for any failure or inadequacy of such services, or any equipment or facilities used in the furnishing thereof, or any act or omission of Provider, or its agents, employees, representatives, officers or contractors; (iii) Landlord shall have no responsibility or liability for the installation, alteration, repair, maintenance, furnishing, operation, adjustment or removal of any such services, equipment or facilities; and (iv) any contract or other agreement between Tenant and Provider shall be independent of this Lease, the obligations of Tenant hereunder, and the rights of Landlord hereunder, and, without limiting the foregoing, no default or failure of Provider with respect to any such services, equipment or facilities, or under any contract or agreement relating thereto, shall have any effect on this Lease or give to Tenant any offset or defense to the full and timely performance of its obligations hereunder, or entitle Tenant to any abatement of rent or additional rent or any other payment required to be made by Tenant hereunder, or constitute any accrual or constructive eviction of Tenant, or otherwise give rise to any other claim of any nature against Landlord.

29.31.3 Notwithstanding anything to the contrary herein or in this Lease contained, Landlord has no obligation to allow any other particular telecommunications service provider to have access to the Project or to the Premises. If Landlord determines there is available space and elects to permit such access, Landlord may condition such access upon (a) the execution of Landlord's standard telecommunications agreement (which shall include a provision requiring the payment of fair market rent for any space in the Project dedicated, licensed and/or leased to such provider), (b) the payment to Landlord by Tenant or the service provider of any costs incurred by Landlord in facilitating such access, (c) there being no requirement for any street opening permits, and (d) there being no unreasonable interference with the use of the Common Areas.

29.32 **Development of the Project**.

29.32.1 **Subdivision**. Landlord reserves the right to further subdivide all or a portion of the Project. Tenant agrees to execute and deliver, upon reasonable prior written request from Landlord and in the form requested by Landlord, and at Landlord's sole cost and expense, any additional documents needed to conform this Lease to the circumstances resulting from such subdivision.

29.32.2 **The Other Improvements**. If portions of the Project or property adjacent to the Project (collectively, the "**Other Improvements**") are owned by an entity other than Landlord, Landlord, at its option, may enter into an agreement with the owner or owners of any or all of the Other Improvements to provide (i) for reciprocal rights of access and/or use of the Project and the Other Improvements, (ii) for the common management, operation, maintenance, improvement and/or repair of all or any portion of the Project and the Other Improvements, provided that Tenant's rights under this Lease are not materially impaired, (iii) for the allocation of a portion of the Direct Expenses to the Other Improvements and the operating expenses and taxes for the Other Improvements to the Project, and (iv) for the use or improvement of the Other Improvements and/or the Project in connection with the improvement, construction, and/or excavation of the Other Improvements and/or the Project. Nothing contained herein shall be deemed or construed to limit or otherwise affect Landlord's right to convey all or any portion of the Project or any other of Landlord's rights described in this Lease.

29.32.3 **Construction of Project and Other Improvements**. Tenant acknowledges that portions of the Project and/or the Other Improvements may be subject to demolition or construction following Tenant's occupancy of the Premises, and that such construction may result in levels of noise, dust, obstruction of access, etc. which are in excess of that present in a fully constructed project. Tenant hereby waives any and all rent offsets or claims of constructive eviction which may arise in connection with such demolition or construction. In connection with such demolition or construction, Landlord shall use commercially reasonable efforts, consistent with accepted construction practice in light of the Permitted Use when applicable, to avoid any materially adverse interference with Tenant's access to, or use and occupancy of, the Premises.

29.33 **Prohibited Persons; Foreign Corrupt Practices Act and Anti-Money Laundering**. Tenant represents and warrants that neither Tenant nor any of its affiliates, nor, to Tenant's knowledge, any of their respective members, partners or other equity holders, and none of their respective officers, directors or managers is, nor prior to or during the Lease Term, will become a person or entity with whom U.S. persons or entities are restricted from doing business under (a) the Patriot Act, (b) any other requirements contained in the rules and regulations of the Office of Foreign Assets Control, Department of the Treasury ("**OFAC**") (including any "blocked" person or entity listed in the Annex to Executive Order Nos. 12947, 13099 and 13224 and any modifications thereto or thereof or any other person or entity named on OFAC's Specially Designated Blocked Persons List) or (c) any other U.S. statute, Executive Order (including the September 24, 2001, Executive Order Blocking Property and Prohibiting Transactions with Persons Who Commit, Threaten to Commit or Support Terrorism) or other governmental action (collectively, "**Prohibited Persons**"). Prior to and during the Lease Term, Tenant, and to Tenant's knowledge, its employees and any person acting on its behalf have at all times fully complied with, and are currently in full compliance with, the Foreign Corrupt Practices Act of 1977 and any other applicable anti-bribery or anti-corruption laws. Tenant is not entering into this Lease, directly or indirectly, in violation of any laws relating to drug trafficking, money laundering or predicate crimes to money laundering. Tenant shall notify Landlord immediately if these circumstances change. As used herein, "**Patriot Act**" shall mean the USA Patriot Act of 2001, 107 Public Law 56 (October 26, 2001) and all other statutes, orders, rules and regulations of the U.S. government and its various executive departments, agencies and offices interpreting and implementing the Patriot Act. Landlord represents and warrants that neither Landlord nor, to Landlord's knowledge, any of its members, partners or other equity holders is, nor during the Lease Term will become, a Prohibited Person. Landlord is not entering into this Lease, directly or indirectly, in violation of any laws relating to drug trafficking, money laundering or predicate crimes to money laundering.

29.34 **Transportation Management**. Tenant shall fully comply with all present or future programs intended to manage parking, transportation or traffic in and around the Project and/or the Building, and in connection therewith, Tenant shall take responsible action for the transportation planning and management of all employees located at the Premises by working directly with Landlord, any governmental transportation management organization or any other transportation-related committees or entities. Such programs may include: (i) restrictions on the number of peak-hour vehicle trips generated by Tenant; (ii) increased vehicle occupancy; (iii) implementation of an in-house ridesharing program and an employee transportation coordinator; (iv) working with employees and any Project, Building or area-wide ridesharing program manager; (v) instituting employer-sponsored incentives (financial or in-kind) to encourage employees to rideshare or take public transportation; and (vi) utilizing flexible work shifts for employees. Tenant shall provide information to Landlord in connection with any reporting requirements thereunder. Reasonable costs incurred by Landlord in connection with any such program shall be included in Operating Expenses.

29.35 **Signatures**. The parties hereto consent and agree that this Lease may be signed and/or transmitted by facsimile, e-mail of a .pdf document or using electronic signature technology (e.g., via DocuSign or similar electronic signature technology), and that such signed electronic record shall be valid and as effective to bind the party so signing as a paper copy bearing such party's handwritten signature. The parties further consent and agree that (1) to the extent a party signs this Lease using electronic signature technology, by clicking "**SIGN**", such party is signing this Lease electronically, and (2) the electronic signatures appearing on this Lease shall be treated, for purposes of validity, enforceability and admissibility, the same as handwritten signatures.

29.36 **Expenses Incurred by Landlord Upon Tenant Requests**. Tenant shall, upon demand, reimburse Landlord for all reasonable expenses, including legal fees, incurred by Landlord in connection with all requests by Tenant for consents, approvals or execution of collateral documentation related to this Lease, including costs incurred by Landlord in the review and approval of Tenant's plans and specifications in connection with proposed Alterations (other than Tenant's Fitout) to be made by Tenant to the Premises or in connection with requests by Tenant for Landlord's consent to make a Transfer; provided, however, any such reimbursement in connection with any Transfer by Tenant shall not exceed the Consent Cap (it being understood that, if the Transfer in question is a sublease of more than one tier (i.e., a sub-sublease, a sub-sub-sublease, etc.), such reimbursement shall not exceed the Consent Cap per tier). For purposes hereof, the "**Consent Cap**" shall mean Five Thousand Dollars ($5,000); provided, however, such amount shall be increased annually on each anniversary of the Execution Date by the greater of three percent (3%) or any cumulative increase in the Consumer Price Index (as published by the United States Department of Labor, Bureau of Labor Statistics for all Urban Consumers, (Boston), Subgroup "all items" (1982-84=100)). Such costs shall be deemed to be additional rent under this Lease.

29.37 **Survival**. Without limiting any other obligation of Tenant which may survive the expiration or prior termination of the Lease Term, all obligations on the part of Tenant to indemnify, defend, or hold Landlord harmless, as set forth in this Lease shall survive the expiration or prior termination of the Lease Term.

29.38 **Grants of Interest**. Tenant shall not grant any security interest whatsoever in (a) any fixtures within the Premises or (b) any item paid in whole or in part by Landlord. Tenant shall notify Landlord within ten (10) business days after the filing of any UCC statement relating to any personal property located in the Premises.

29.39 **Security**. Tenant acknowledges that security devices and services, if any, while intended to deter crime, may not in given instances prevent theft or other criminal acts. Landlord shall not be liable for injuries or losses caused by criminal acts of third parties, and Tenant assumes the risk that any security device or service may malfunction or otherwise be circumvented by a criminal. If Tenant desires protection against such criminal acts, then Tenant shall, at Tenant's sole cost and expense, obtain appropriate insurance coverage. Tenant is solely responsible for securing access to the Premises. Tenant may, at its own expense, install its own card key or "**key fob**" security access system ("**Tenant's Security System**") in the Premises and connect such system to Landlord's security system for the Building, pursuant to the terms of Article 8, above; provided, however, that Tenant shall coordinate the installation and operation of Tenant's Security System with Landlord to assure that Tenant's Security System is compatible with Landlord's security system and the Building systems and equipment (and to the extent that Tenant's Security System is not compatible with Landlord's security system and the Building systems and equipment, Tenant shall not be entitled to install or operate it). Tenant shall be solely responsible, at Tenant's sole cost and expense, for the monitoring, operation and removal of Tenant's Security System.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Lease to be executed the day and date first above written.

LANDLORD:	TENANT:
BCSP PEARL EAST PROPERTY LLC, a Delaware limited liability company	CAMP4 THERAPEUTICS CORPORATION, a Delaware corporation
By: /s/ McClure Kelly	By: /s/ Kelly Gold

EXHIBIT A

OUTLINE OF PREMISES

[***]

EXHIBIT B

TENANT WORK LETTER

[***]

SCHEDULE A-1

PLANS AND SPECS FOR TENANT'S FITOUT

[***]

SCHEDULE A-2

SPACE PLAN

[***]

SCHEDULE B

MATRIX

Pearl East
Boulder, CO

Building 4888
C/S+Spec Suite Lab Delivery

Landlord/Tenant Responsibilities Matrix
April 6, 2022

[***]

SCHEDULE C

HVAC SPECIFICATIONS

[***]

SCHEDULE C-1

EXHIBIT C

NOTICE OF LEASE TERM DATES

[***]

EXHIBIT D-1

BUILDING RULES AND REGULATIONS

[***]

EXHIBIT D-2

GREEN LEASE PROVISIONS

[***]

EXHIBIT E

ENVIRONMENTAL QUESTIONNAIRE

[***]

EXHIBIT F

FORM OF TENANT'S ESTOPPEL CERTIFICATE'.

[***]

EXHIBIT G

FORM OF LETTER OF CREDIT

[***]

EXHIBIT A

SIGHT DRAFT

[***]

EXHIBIT G-2

EXHIBIT B

TRANSFER FORM

[***]

EXHIBIT G-3

Exhibit 21.1

SUBSIDIARIES

Subsidiary	Jurisdiction of Incorporation
CAMP4 Therapeutics Pty Ltd	Australia

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated June 14, 2024, in the Registration Statement (Form S-1) and related Prospectus of CAMP4 Therapeutics Corporation dated September 20, 2024.

/s/ Ernst & Young LLP

Boston, Massachusetts

September 20, 2024

Exhibit 107

Calculation of Filing Fee Tables

Form S-1

CAMP4 THERAPEUTICS CORPORATION

Table 1: Newly Registered Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price(1)	Fee Rate	Amount of Registration Fee(2)
Fees to Be Paid	Equity	Common Stock, par value $0.0001 per share(3)	457(o)	—	—	$75,000,000	0.00014760	$11,070.00
	Total Offering Amounts					$75,000,000	—	$11,070.00
	Total Fees Previously Paid					—	—	—
	Total Fee Offsets					—	—	—
	Net Fee Due					—	—	$11,070.00

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the "Securities Act").

(2) Calculated pursuant to Rule 457(o) under the Securities Act based on an estimate of the proposed maximum aggregate offering price.

(3) Includes up to an additional 15% of the aggregate offering price to cover a 30-day option granted to the underwriters to purchase additional shares of our common stock to cover over-allotments, if any.