

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

FORM 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 FOR THE TRANSITION PERIOD FROM _____ TO _____.

Commission File Number 001-37348

Corbus Pharmaceuticals Holdings, Inc.

(Exact name of Registrant as specified in its Charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

500 River Ridge Drive
Norwood, Massachusetts

(Address of principal executive offices)

46-4348039

(I.R.S. Employer
Identification No.)

02062

(Zip Code)

Registrant's telephone number, including area code: (617) 963-0100

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	CRBP	The Nasdaq Capital Market

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer

Non-accelerated filer

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 13(a) of the Exchange Act.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to Section 240.10D-1(b).

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

As of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately \$31,475,349, based on the closing price of the registrant's common stock on June 30, 2022.

As of March 3, 2023, the number of shares outstanding of the registrant's common stock, \$0.0001 par value per share, was 4,171,297.

Documents incorporated by reference

Portions of the registrant's proxy statement for the 2023 annual meeting of stockholders to be filed pursuant to Regulation 14A within 120 days after the registrant's fiscal year ended December 31, 2022, are incorporated by reference in Part III of this Form 10-K.

CORBUS PHARMACEUTICALS HOLDINGS, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2022
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PART I

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report on Form 10-K contains forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 under Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include statements with respect to our beliefs, plans, objectives, goals, expectations, anticipations, assumptions, estimates, intentions and future performance, and involve known and unknown risks, uncertainties and other factors, which may be beyond our control, and which may cause our actual results, performance or achievements to be materially different from future results, performance or achievements expressed or implied by such forward-looking statements. All statements other than statements of historical fact are statements that could be forward-looking statements. You can identify these forward-looking statements through our use of words such as “may,” “can,” “anticipate,” “assume,” “should,” “indicate,” “would,” “believe,” “contemplate,” “expect,” “seek,” “estimate,” “continue,” “plan,” “point to,” “project,” “predict,” “could,” “intend,” “target,” “potential” and other similar words and expressions of the future.

There are a number of important factors that could cause the actual results to differ materially from those expressed in any forward-looking statement made by us. These factors include, but are not limited to:

- our history of operating losses;
- our current and future capital requirements and our ability to satisfy our capital needs;
- our ability to complete required clinical trials of our product candidates and obtain approval from the FDA or other regulatory agents in different jurisdictions;
- our ability to internally develop new product candidates, intellectual property, and other product candidates we may acquire and/or license;
- our ability to maintain or protect the validity of our patents and other intellectual property;
- our ability to retain key executive members;
- the potential impact of the COVID-19 pandemic and other geographical events, including the war in Ukraine and their effects on our operations, including on our clinical development plans and timelines;
- interpretations of current laws and the passages of future laws;
- acceptance of our business model by investors;
- the accuracy of our estimates regarding expenses and capital requirements; and
- our ability to adequately support growth.

The foregoing does not represent an exhaustive list of matters that may be covered by the forward-looking statements contained herein or risk factors that we are faced with that may cause our actual results to differ from those anticipated in our forward-looking statements. Please see “Risk Factors” for additional risks which could adversely impact our business and financial performance.

All forward-looking statements are expressly qualified in their entirety by this cautionary notice. You are cautioned not to place undue reliance on any forward-looking statements, which speak only as of the date of this report or the date of the document incorporated by reference into this report. We have no obligation, and expressly disclaim any obligation, to update, revise or correct any of the forward-looking statements, whether as a result of new information, future events or otherwise. We have expressed our expectations, beliefs and projections in good faith and we believe they have a reasonable basis. However, we cannot assure you that our expectations, beliefs or projections will result or be achieved or accomplished.

Item 1. BUSINESS

All references in this report to “Corbus,” the “Company,” “we,” “us,” or “our” mean Corbus Pharmaceuticals Holdings, Inc., and its subsidiaries unless we state otherwise, or the context otherwise indicates.

Overview

Corbus Pharmaceuticals Holdings, Inc. (the “Company” or “Corbus”) is a precision oncology company committed to helping people defeat serious illness by bringing innovative scientific approaches to well understood biological pathways. Corbus’ internal development pipeline includes CRB-701, a next generation antibody drug conjugate (ADC) that targets the expression of Nectin-4 on cancer cells to release a cytotoxic payload and CRB-601, an anti-integrin monoclonal antibody that blocks the activation of TGFβ expressed on cancer cells. The Company has also developed CRB-913, an endocannabinoid small molecule drug, for the treatment of obesity and is seeking partners to fund further development.

Corbus’ precision oncology internal development pipeline:

•CRB-701 is a next generation ADC that targets the expression of Nectin-4 on cancer cells to release a cytotoxic payload. In February 2023, the Company obtained a license from CSPC Megalith Biopharmaceutical Co., Ltd (“CSPC”), a subsidiary of CSPC Pharmaceutical Group Limited, to develop and commercialize the drug in the United States (“U.S.”), Canada, the European Union (including the European Free Trade Area), the United Kingdom, and Australia (the “CSPC License Agreement”). The Investigational New Drug (IND) application for CRB-701 has been cleared by the U.S. FDA and the drug is currently being investigated by CSPC in a Phase 1 dose escalation clinical trial in patients with advanced solid tumors in China. Corbus is planning to bridge data from this Phase 1 trial to support a U.S. clinical trial starting in mid-2024.

•CRB-601 is an anti-αvβ8 monoclonal antibody that blocks the activation of TGFβ expressed on cancer cells in the tumor microenvironment. In pre-clinical models, CRB-601 demonstrates enhanced anti-tumor activity when combined with anti-PD-1 checkpoint inhibitor therapy compared to either single agent alone. Pre-clinical data suggests that blockade of latent TGFβ production by CRB-601 can lead to changes in immune cell infiltration in the tumor microenvironment, potentially enhancing the benefit of PD-1 blockade. CRB-601 is being developed as a potential treatment for patients with solid tumors in combination with existing therapies, including checkpoint inhibitors, and is scheduled for an IND submission in the second half of 2023. The Company expects to enroll the first patient in the Phase 1 study by the end of 2023.

Compound	Indications	Preclinical	Phase 1	Phase 2	Phase 3
Next Generation Nectin-4 targeting ADC					
CRB-701 Next generation Nectin-4 targeting ADC	Urothelial cancer		Ongoing (China)		
	Nectin-4 enriched solid tumors		Starts 2024 (US and China)		
Anti-Integrin mAb					
CRB-601 Anti-αvβ8 mAb <i>(TGFβ-targeting)</i>	αvβ8 enriched solid tumors		IND H2 2023 First Patient Q4 2023		

Corbus' endocannabinoid pipeline:

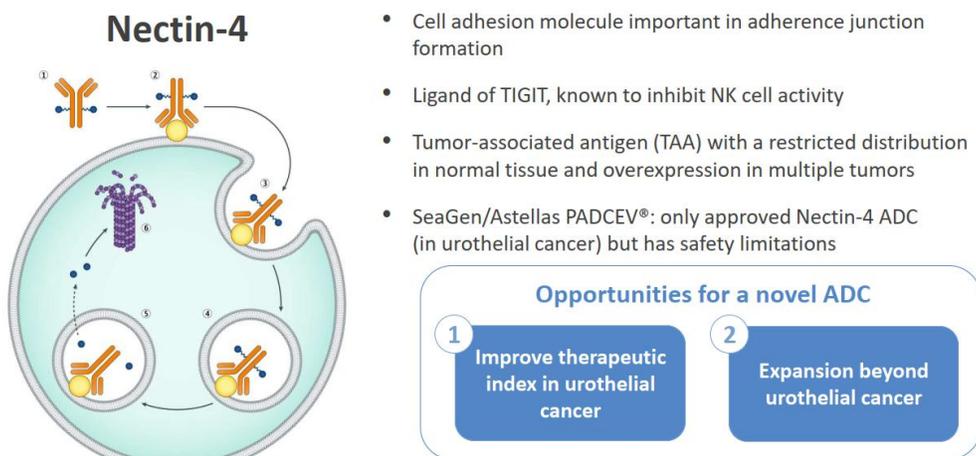
- CRB-913 is a second-generation cannabinoid receptor type 1 (CB1) inverse agonist designed to treat obesity and related metabolic diseases. In the diet-induced obesity mice model (DIO), CRB-913 demonstrates a reduction in weight and food consumption, improvement in insulin resistance and leptinemia, and reduced fat deposits in the liver. The CRB-913 program is in the pre-clinical stage, and we are seeking partnerships to fund further development.
- Lenabasum is a novel, synthetic, oral molecule that selectively activates cannabinoid receptor type 2 (CB2) for the treatment of inflammation and fibrosis. The drug completed Phase 3 studies in dermatomyositis and systemic sclerosis and these studies failed to meet their primary endpoints. In November 2022, the National Institutes of Health released results for the Phase 2 study it sponsored in systemic lupus erythematosus and lenabasum failed to demonstrate efficacy versus placebo. We do not plan to conduct additional clinical studies for lenabasum.

CRB-701

CRB-701 is a novel clinical stage ADC that targets the expression of Nectin-4 on cancer cells to release a cytotoxic payload of monomethyl auristatin E (MMAE). In February 2023, the Company obtained a license from CSPC, a subsidiary of CSPC Pharmaceutical Group Limited, to develop and commercialize the drug in the United States, Canada, the European Union (including the European Free Trade Area), the United Kingdom, and Australia. The IND for CRB-701 has been cleared by the U.S. FDA and the drug is currently being investigated by CSPC in a Phase 1 dose escalation clinical trial in patients with advanced solid tumors in China. Corbus is planning to bridge data from the Phase 1 trial in China to support a U.S. clinical trial starting in mid-2024. During 2023, we plan on conducting pre-clinical translational studies and, in partnership with CSPC, plan to develop a companion diagnostic to identify tumors other than urothelial cancer that express lower levels of Nectin-4. The companion diagnostic is expected to help identify patients who are likely to respond to the therapy.

The targeting of Nectin-4 on cancer cells to release the cytotoxic payload MMAE is a clinically validated target as Enfortumab vedotin (PADCEV®) has been approved for the treatment of urothelial cancer (Figure 1). However, PADCEV® is also associated with serious adverse events and has a corresponding black box warning in its label. PADCEV® toxicity and safety limitations include serious and potentially life-threatening skin reactions and peripheral neuropathy, which negatively impact tolerability and dose intensity (Figure 2).

Figure 1: Nectin-4 is a clinically validated target with untapped potential



Source(s): [Licensed permission] Heath, E.I., Rosenberg, J.E. The biology and rationale of targeting Nectin-4 in urothelial carcinoma. Nat Rev Urol 18, 99–103 (2021).

Figure 2: PADCEV® safety limitations



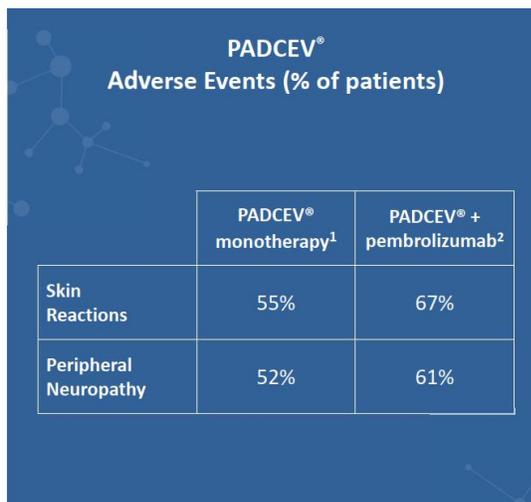
WARNING: SERIOUS SKIN REACTIONS

- PADCEV can cause severe and fatal cutaneous adverse reactions including Stevens-Johnson syndrome (SJS) and Toxic Epidermal Necrolysis (TEN), which occurred predominantly during the first cycle of treatment, but may occur later.
- Closely monitor patients for skin reactions.
- Immediately withhold PADCEV and consider referral for specialized care for suspected SJS or TEN or severe skin reactions.
- Permanently discontinue PADCEV in patients with confirmed SJS or TEN; or Grade 4 or recurrent Grade 3 skin reactions (see Dosage and Administration (2.2), Warnings and Precautions (5.1) and Adverse Reactions (6.1)).

A Black Box warning for PADCEV® cautions physicians regarding the skin toxicity risk¹

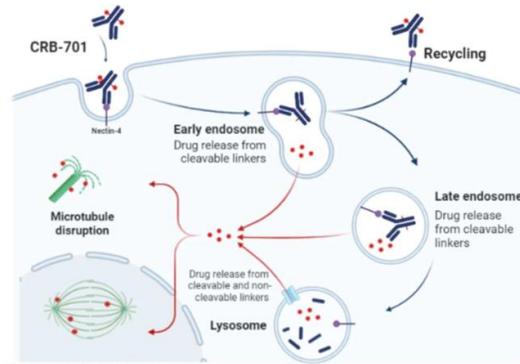
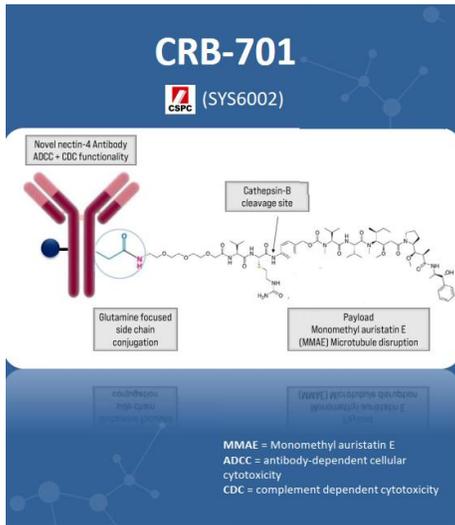
Greater than 25% of PADCEV® discontinuations are linked to peripheral neuropathy³

Source(s): 1. PADCEV® Prescribing Information. 2. 2022 ESMO, LBA73 - Study EV-103 Cohort K. 3. Rosenberg et al., 2020, JCO April 1 38 (10).



CRB-701 is designed to be an improved next generation site-specific Nectin-4 targeting ADC (Figure 3). The drug leverages site specific conjugation and novel linker technology to enable homogeneous payload incorporation. The linker technology attaches the MMAE cytotoxic payload to the monoclonal antibody and is designed to keep the MMAE attached to the monoclonal antibody until it binds to the Nectin-4 receptor on the target cell. MMAE is then released upon internalization within the target cell. The targeted delivery of CRB-701 is designed to maximize delivery of MMAE while minimizing toxicity to normal tissues. CRB-701's longer half-life and low free plasma payload supports less frequent dosing. The complexity and cost of manufacturing for CRB-701 has also been reduced by the drug's single enzyme and improved linker technology. CRB-701 may also offer immune-mediated tumor destruction functionality. The antibody for CRB-701 binds to the Fc receptor to trigger innate immune-mediated destruction as a secondary mechanism of action (Figure 4). Pre-clinical data suggest that CRB-701 has a comparative advantage versus standard of care for urothelial cancer and thus provides Corbus with the opportunity to develop an improved Nectin-4 targeting ADC with a differentiated profile (Figure 5).

Figure 3: CRB-701 Next generation site-specific Nectin-4 targeting ADC



Mechanism of CRB-701 ADC

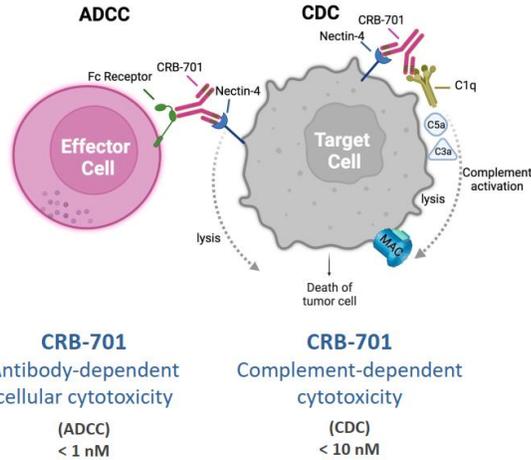
1. Selective binding of CRB-701 to Nectin-4
 2. Internalization of CRB-701/Nectin-4 complex via endocytosis
 3. Intracellular cytosol release of MMAE (payload) due to lysosomal trafficking
 4. MMAE cytotoxic effect – tubulin polymerization inhibition – G2/M cell cycle arrest - apoptosis
 5. Bystander effect: Nearby tumor cells exposed to MMAE/ADC released from targeted cell also undergo apoptosis
- Source(s): Modified Image from Corbus data on file

Figure 4: CRB-701 differentiated by immune-mediated tumor destruction functionality

The CRB-701 antibody has built-in Fc receptor binding activity → innate immune mediated tumor destruction

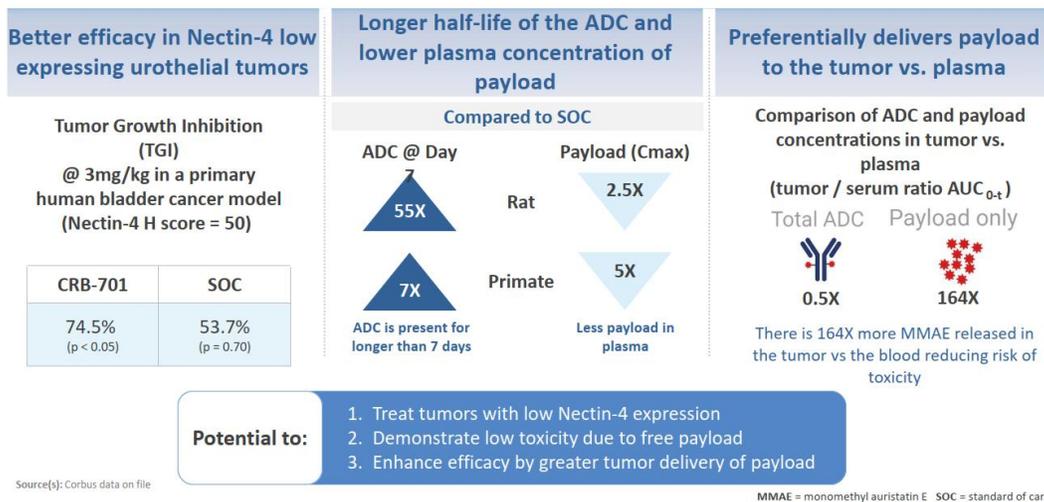
CRB-701 has demonstrated potency against FcγR1, C1q and FcRn

This additional antibody functionality is designed to increase efficacy of CRB-701 via a secondary mechanism



Source(s): Corbus data on file ADCC = antibody-dependent cellular cytotoxicity CDC = complement dependent cytotoxicity

Figure 5: CRB-701 pre-clinical data suggests a differentiated Nectin-4 targeting ADC



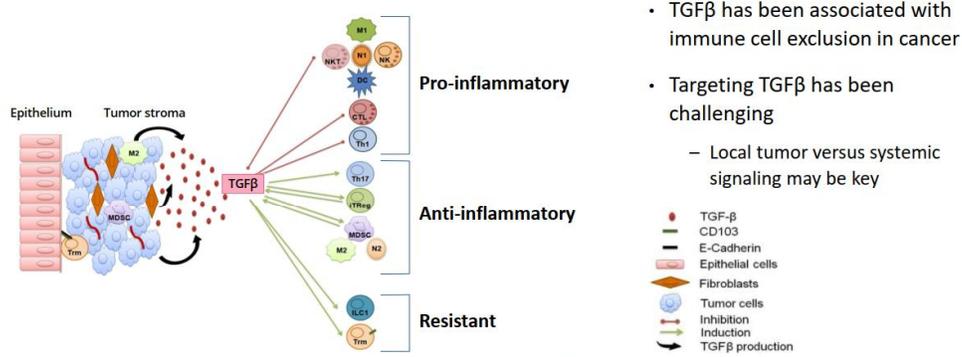
CRB-601

We are developing CRB-601, an anti- α v β 8 integrin mAb for the treatment of solid tumors. The Company in-licensed the intellectual property for CRB-601 from Dr. Stephen Nishimura's laboratory at the University of California, San Francisco.

TGF β is a multifunctional cytokine involved in many cellular processes, including cell growth and differentiation, immune response, wound healing, and tissue repair. In cancer, TGF β mediates immune evasion (Figure 6) and plays a key role in promoting cancer cell growth and metastasis via its immunosuppressive effects in the tumor microenvironment. When overexpressed in the tumor milieu, TGF β is linked to poor clinical outcomes (Figure 7). Similarly, the α v β 8 integrin appears to be the only TGF β activating integrin expressed on regulatory T-cells, highlighting the key contribution of this integrin to immunosuppression. Tumor cells can also evade host immunity by activating TGF β via integrin α v β 8.

The α v β 8 integrin is a key regulator of TGF β that is co-opted in many late-stage metastatic cancers to function as a pro-cancer cytokine. TGF β is normally stored in the extracellular matrix as an inactive latent pro-protein complex. TGF β is held in an inactive state in association with latency associate peptide (LAP) and is presented on cell surfaces by latent transforming growth factor β binding proteins (e.g., LTBP1, GARP); these three components comprising the large latent complex (LLC). Upon binding of the LAP-TGF β complex to the α v β 8 integrin TGF β is released and can now activate the TGF β receptor and the associated SMAD signaling pathway that leads to a related transcription translation program of TGF β target genes. CRB-601 was specifically designed to bind at the TGF β activation site on α v β 8 (Figure 8), thereby blocking α v β 8-dependent activation.

Figure 6: TGFβ is believed to play a central role in immunoregulation and cancer



Source(s): Dahmani A, Delisle JS. TGF-β in T Cell Biology: Implications for Cancer Immunotherapy. *Cancers (Basel)*. 2018;10(6):194. Published 2018 Jun 11. doi:10.3390/cancers10060194

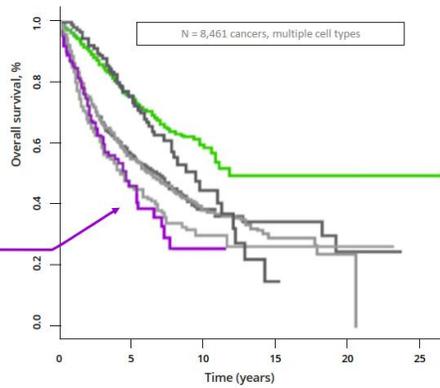
- TGFβ has been associated with immune cell exclusion in cancer
- Targeting TGFβ has been challenging
 - Local tumor versus systemic signaling may be key

Figure 7: TGFβ predicts poor clinical outcomes in a subset of cancer patients

Immunogenomic subtypes in cancer

- C1 WOUND HEALING
- C2 INF-γ DOMINANT
- C3 INFLAMMATORY
- C4 LYMPHOCYTE DEPLETED
- C5 IMMUNOLOGICALLY QUIET
- C6 TGFβ DOMINANT

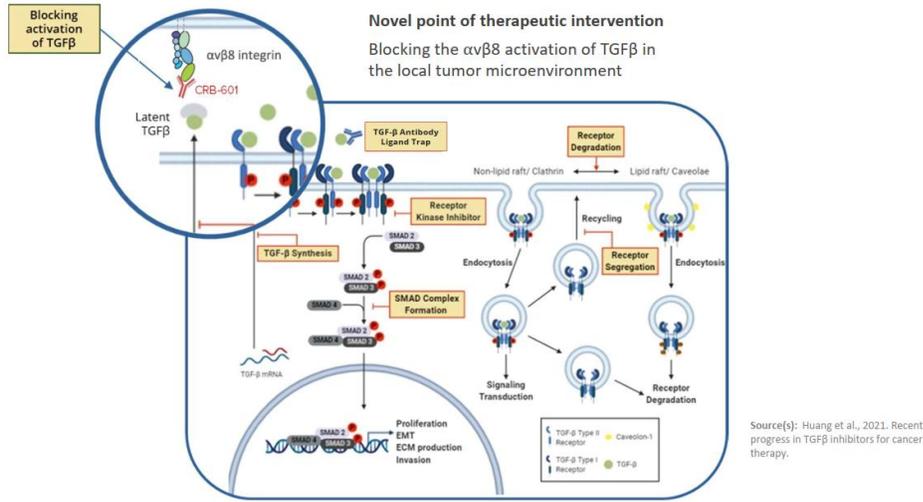
TGFβ predominance gene signature



Source(s): Thorsson, et al. The Immune Landscape of Cancer, *Immunity*. 2018; 48:817

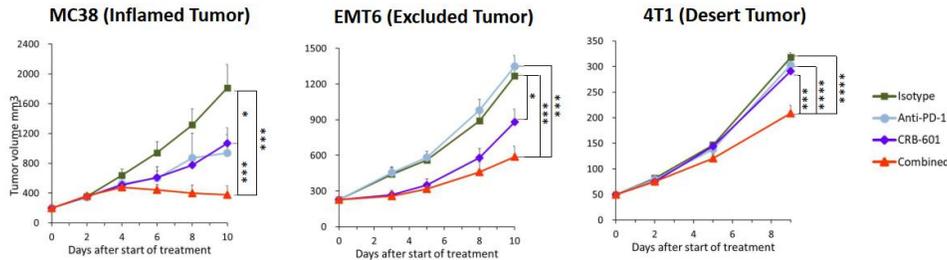
Gene expression, immune cell quantification & network mapping
 • 33 different cancer types / 8,000+ tumors

Figure 8: Targeting the integrin $\alpha\beta 8$ represents a novel approach to regulating TGF β



While checkpoint inhibitors (CPIs) have led to dramatic improvements in survival rates for certain cancer patients, there is still a significant subset of patients who do not respond to this class of medicine. In resistant murine tumor models, CRB-601 has demonstrated that it enhanced the effect of anti-PD-1 checkpoint therapy (Figure 9).

Figure 9: CRB-601 enhancements



Source(s): Corbus data on file

Checkpoint blockade sensitivity



Endocannabinoid Pipeline

CRB-913

Corbus has developed CRB-913, a second-generation cannabinoid receptor type 1 (CB1) inverse agonist designed to treat obesity and related metabolic diseases. In the diet-induced obesity mice model (DIO), CRB-913 demonstrates a reduction in weight, food consumption, and fat deposits in the liver and improvement in insulin resistance and leptinemia. CRB-913 induces weight loss both as a monotherapy (Figure 10) and in combination with the incretin analogs liraglutide (Saxenda™), semaglutide (Wegovy™) and tirzepatide (Mounjaro™) (Figure 11). The CRB-913 program is in the pre-clinical stage, and we are seeking partnerships to fund further development.

Figure 10: CRB-913 demonstrate significant reduction in body weight

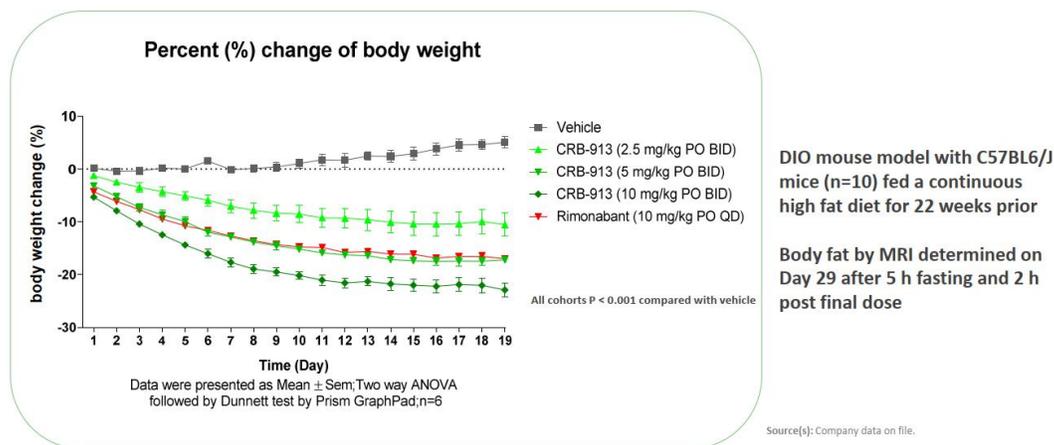
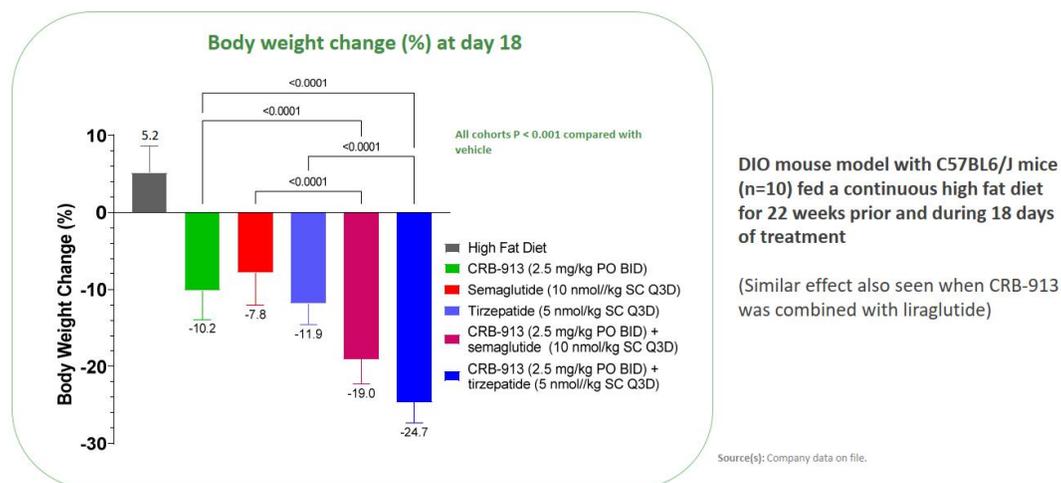


Figure 11: CRB-913 enhanced combo effect



Lenabasum

Lenabasum is a novel, synthetic, oral molecule that selectively activates cannabinoid receptor type 2 (CB2) for the treatment of inflammation and fibrosis. The drug completed Phase 3 studies in dermatomyositis and systemic sclerosis and these studies failed to meet their primary endpoints. In November 2022, the National Institutes of Health released results for the Phase 2 study it sponsored in systemic lupus erythematosus and lenabasum failed to demonstrate efficacy versus placebo. We do not plan to conduct additional clinical studies for lenabasum.

Our Business Development Strategy

Our goal is to develop novel therapeutics in oncology for well understood biological pathways by utilizing precision medicine to identify the genetic drivers and biomarkers for each specific type of cancer and then develop companion diagnostics that will better identify patient populations that will be most likely to benefit from our therapies. Our key business goals are as follows:

- Develop a companion diagnostic and perform translational validation studies for CRB-701 in 2023 followed by the first U.S. clinical study in mid-2024.
- File an IND for CRB-601 in the third quarter 2023 and initiate a Phase 1 trial for CRB-601 by the end of 2023.
- Expand and diversify our precision oncology pipeline through a licensing and acquisition strategy.
- Enter into partnerships for our endocannabinoid drug CRB-913 to fund further development.

Research and Development

We incurred expenses of approximately \$16,137,000 and \$36,445,000 for research and development activities for the years ended December 31, 2022 and 2021, respectively. These expenses include cash and non-cash expenses relating to the development of our clinical and pre-clinical programs for our pipeline. Research and development expenses are incurred for the development of our drug candidates and consist primarily of payroll and payments to contract research and development companies. To date, these costs are related to generating pre-clinical data and the cost of manufacturing drug product for clinical trials and conducting clinical trials.

Intellectual Property

Our commercial success depends in part on our ability to obtain and maintain patent and other proprietary protection for our technologies, products and processes, including proprietary protection for CRB-701, CRB-601, CRB-913, and lenabasum.

CRB-701: Antibody Drug Conjugate (ADC) Targeting Nectin-4

The Company entered into the CSPC License Agreement with CSPC effective February 12, 2023. Pursuant to the CSPC License Agreement, the Company received an exclusive license to CRB-701 for the prevention and treatment of all oncology indications in the United States, Canada, the European Union (including the European Free Trade Area), the United Kingdom, and Australia. The last of the licensed patent applications, if granted, is projected to expire in 2042.

CRB-601: Anti-Integrin Monoclonal Antibody

The Company entered into a license agreement (the "UCSF License Agreement") with the Regents of the University of California ("The Regents") effective May 26, 2021, as amended to include additional inventions effective November 17, 2022. Pursuant to the UCSF License Agreement, the Company received an exclusive worldwide license to certain patent applications relating to humanized antibodies against integrin $\alpha v \beta 8$, an antibody for diagnostic use, along with non-exclusive licenses to certain related know-how and materials. The last of the licensed patent applications, if granted, is projected to expire in 2043.

CRB-913: Second Generation CBI Inverse Agonist

On September 20, 2018, we entered into an exclusive license agreement with Jenrin Discovery, LLC which provides us with an exclusive worldwide license to develop and market cannabinoid compounds covered by the Jenrin issued patents and patent applications that cover the composition and method of use of selective cannabinoid receptor modulators. The Jenrin intellectual property portfolio includes eight granted United States patents and nine granted patents outside of the United States. The portfolio includes U.S. Patent No. 8,853,252 which granted with claims relating to the cannabinoid receptor blocker CRB-913 and methods of using the same for treating obesity, diabetes, hepatic disorders, and/or cardiometabolic disorders. The licensed intellectual property portfolio provides intellectual property protection in the United States for CRB-913 and these uses through November 2028. Corbus owns a patent application covering CRB-913 that can result in patent rights projected to expire in 2043.

Lenabasum Program

We have filed patent applications directed to lenabasum, compositions and methods for treating disease using lenabasum. If granted, the resulting patents would expire on dates ranging from 2031 to 2040, subject to extension under certain circumstances. The patent application filings are directed to:

- Compositions including an improved ultrapure version of lenabasum and uses of the compositions for the treatment of fibrotic conditions and inflammatory conditions;
- The use of lenabasum in the treatment of fibrotic diseases;
- Lenabasum formulations and uses of the formulations for the treatment of disease; and
- Lenabasum polymorphs and uses of the polymorphs for the treatment of the disease.

On August 6, 2019, the U.S. Patent and Trademark Office (“USPTO”) issued U.S. Patent No. 10,369,131 to the Company with claims covering the use of pharmaceutical compositions comprising lenabasum for the treatment of dermatomyositis. The patent provides exclusivity in the U.S. for this use of lenabasum to February 12, 2034.

On December 18, 2018, USPTO issued U.S. Patent No. 10,154,986 to the Company with claims covering pharmaceutical compositions of lenabasum. The patent provides exclusivity in the U.S. for these lenabasum compositions to February 12, 2034.

On October 3, 2018, the USPTO issued U.S. Patent No. 10,085,964 to the Company with claims covering the use of pharmaceutical compositions comprising lenabasum for the treatment of all fibrotic diseases, encompassing Corbus’ lead indications systemic sclerosis, cystic fibrosis and others. The patent provides exclusivity in the U.S. for this use of lenabasum to February 12, 2034.

On October 31, 2017, the USPTO issued U.S. Patent No. 9,801,849 to the Company with claims covering the use of pharmaceutical compositions comprising lenabasum, for the treatment of all inflammatory diseases. The patent provides exclusivity in the U.S. for this use of lenabasum to February 12, 2034.

On November 27, 2017, the USPTO issued U.S. Patent No. 9,820,964 to the Company with claims covering the use of pharmaceutical compositions comprising lenabasum for the treatment of all fibrotic diseases, encompassing the Company’s lead indications systemic sclerosis, cystic fibrosis and others. The patent provides intellectual property protection in the United States for this use of lenabasum to February 12, 2034.

On July 6, 2021, the USPTO issued U.S. Patent No. 11,052,066 to the Company with claims covering pharmaceutical compositions of lenabasum and their use in treating fibrotic and inflammatory diseases, encompassing the Company’s lead indications systemic sclerosis, cystic fibrosis and others. The patent provides intellectual property protection in the United States for this use of lenabasum to February 12, 2034.

Lenabasum has been granted Orphan Drug Designation for cystic fibrosis, dermatomyositis and systemic sclerosis in the U.S. and in the European Union and for systemic sclerosis in Japan. In addition, in systemic sclerosis and in cystic fibrosis, lenabasum has been granted a Fast Track Designation by the FDA. Orphan designation for lenabasum may be pursued for other inflammatory diseases in the U.S., Europe, and Japan. Orphan drug status provides seven years of market exclusivity in the U.S. and ten years in Europe and Japan beginning on the date of drug approval.

Other Intellectual Property Matters

Our commercial success depends in part on our ability to obtain and maintain patent and other proprietary protection for our technologies and to operate without infringing the proprietary right of others and to prevent others from infringing our proprietary rights. We strive to protect our intellectual property through a combination of patents and trademarks as well as through the confidentiality provisions in our contracts. With respect to our candidates, we endeavor to obtain and maintain patent protection in the U.S. and internationally on all patentable aspects of each product candidate. We cannot be sure that the patents will be granted with respect to any patent applications we may own or license in the future, nor can we be sure that any patents issued or licensed to us in the future will be useful in protecting our technology. For this and more comprehensive risks related to our intellectual property, please see “Risk Factors—Risks Relating to Our Intellectual Property Rights.”

In addition to patent protection, we rely on trade secrets and know-how to develop and maintain our competitive position. For example, aspects of our proprietary technology platform are based on unpatented trade secrets and know-how related to the manufacturing of our product candidates. Trade secrets and know-how can be difficult to protect. We seek to protect our proprietary technology and processes, in part, by confidentiality agreements and invention assignment agreements with our employees, consultants, scientific advisors, contractors and commercial partners. These agreements are designed to protect our proprietary information and, in the case of the invention assignment agreements, to grant us ownership of technologies that are developed through a relationship with a third party. We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our contractors use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions.

We also seek and will continue to seek trademark protection in the United States and outside of the United States where available and when appropriate. We use and intend to use these registered marks in connection with our pharmaceutical research and development as well as our product candidates.

Manufacturing and Supply of CRB-701, CRB-601, and CRB-913

We do not own or operate manufacturing facilities and rely on third-party contract manufacturing organizations or licensing partners to supply Corbus with drugs for pre-clinical and clinical studies.

CRB-701 is designed to be an improved next generation site-specific Nectin-4 targeting antibody drug conjugate. CRB-701 is a monoclonal antibody attached to an MMAE cytotoxic payload using a proprietary linker technology. CSPC has developed a manufacturing process under current good manufacturing practice (“cGMP”) to produce batches of drug substance and drug product for pre-clinical and clinical studies. CSPC will supply drug substance and drug product in support of clinical and commercial activities.

CRB-601 is a monoclonal antibody and we are in the process of developing a manufacturing process under cGMP to produce batches of drug substance and drug product for pre-clinical and clinical studies. Drug substance for CRB-601 will be produced by a contract manufacturer through recombinant DNA technology utilizing genetically engineered host cells, upstream cell culture processes and downstream purification methods as required to manufacture the drug substance.

CRB-913 is a second-generation cannabinoid receptor type 1 (CB1) inverse agonist and we have developed a manufacturing process under cGMP to produce batches of drug substance for pre-clinical and IND-enabling studies. Drug substance for CRB-913 has been produced by a contract manufacturer to initiate drug product studies.

Competition

The biotechnology and pharmaceutical industries are characterized by a rapid pace of new innovation and discoveries, fierce competition and strong defense of intellectual property. We face competition from major pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions, among others.

Competitors to CRB-701 who are targeting Nectin-4 include Seagen, Bicycle Therapeutics, and Mabwell. Competitors to CRB-601 who are also targeting the TGFβ pathway in cancer include Bristol Meyers, Merck KGaA, Pfizer, Sanofi, Argenx, Morphic, Pliant and Scholar Rock. Competitors to CRB-913 who are also targeting obesity include Eli Lilly, Novo Nordisk, Amgen, and Pfizer.

Regulatory Matters

Government Regulation

The process of obtaining regulatory approvals and the subsequent compliance with appropriate federal, state, local and foreign statutes and regulations require the expenditure of substantial time and financial resources. Failure to comply with the applicable requirements at any time during the product development process, approval process or after approval, may subject an applicant to administrative or judicial sanctions. These sanctions could include the FDA's refusal to approve pending applications, withdrawal of an approval, a clinical hold, warning letters, product recalls or withdrawals from the market, product seizures, total or partial suspension of production or distribution, injunctions, fines, refusals of government contracts, restitution, disgorgement, or civil or criminal penalties. Any agency or judicial enforcement action could have a material adverse effect on us.

Any product development activities related to products that we may develop or acquire in the future will be subject to extensive regulation by various government authorities, including the FDA, other federal, state and local agencies and comparable regulatory authorities in other countries, which regulate the design, research, clinical and pre-clinical development, testing, manufacturing, storage, distribution, import, export, labeling, advertising and marketing of pharmaceutical products and devices. Generally, before a new drug can be sold, considerable data demonstrating its quality, safety and efficacy must be obtained, organized into a format specific to each regulatory authority, submitted for review and approved by the regulatory authority. The data are often generated in two distinct development states: pre-clinical and clinical.

Development of Drugs in the United States

Products that we may develop or acquire in the future must be approved by the FDA before they may be legally marketed in the United States. For new chemical entities, the pre-clinical development stage generally involves synthesizing the active component, developing the formulation and determining the manufacturing process, and drug stability as well as carrying out non-human toxicology, pharmacology and drug metabolism studies that support subsequent clinical testing. These pre-clinical laboratory and animal tests are often performed under the FDA's Good Laboratory Practices regulations. A drug's sponsor must submit the result of the pre-clinical tests, together with manufacturing information, analytical data and any available clinical data or literature and a proposed clinical protocol to the FDA as part of an IND application, which is a request for authorization from the FDA to administer an investigational drug or biological product to humans. Similar filings are required in other countries.

The clinical stage of development can generally be divided into three sequential phases that may overlap: Phase 1, Phase 2, and Phase 3 clinical trials. In Phase 1, generally, small numbers of healthy volunteers are initially exposed to single escalating doses and then multiple escalating doses of the product candidate. The primary purpose of these studies is to assess the metabolism, pharmacologic action and general safety of the drug. Phase 2 trials typically involve studies in disease-affected patients to determine the dose required to produce the desired benefits, common short-term side effects and risks. Phase 2 studies are typically well-controlled, closely monitored, and conducted in a relatively small number of patients, usually involving no more than several hundred subjects. Phase 3 trials are intended to gather the additional information about effectiveness and safety that is needed to evaluate the overall benefit-risk relationship of the drug and to provide an adequate basis for physician labeling. Phase 3 studies usually include from several hundred to several thousand subjects and are closely controlled and monitored. In addition to these Phase 1-3 trials, other trials may be conducted to gather additional safety, pharmacokinetic and pharmacodynamic information. Pharmaceutical products with active ingredients equal or similar to those already approved by the FDA often have more streamlined development programs than compounds entirely new to the agency, often skipping Phase 1 and 2 trials.

A clinical plan must be submitted to the FDA prior to commencement of a clinical trial. If the FDA has concerns about the clinical plan or the safety of the proposed studies, they may suspend or terminate the study at any time. Studies must be conducted in accordance with good clinical practice and reporting of study progress and any adverse experiences is required. Studies are also subject to review by independent institutional review boards responsible for overseeing studies at particular sites and protecting human research study subjects. An independent institutional review board may also suspend or terminate a study once initiated. Accordingly, we cannot be sure that submission of an IND will result in the FDA allowing clinical trials to begin, or that once begun, issues will not arise that could cause the trial to be suspended or terminated.

Post-approval studies, sometimes referred to as Phase 4 clinical trials, may be conducted after initial marketing approval. Sometimes, these studies are used to gain additional experience from the treatment of patients in the intended therapeutic condition. In certain instances, the FDA may mandate the performance of Phase 4 studies. In other situations, post-approval studies aim to gain additional indications for a medication or develop new dosage forms for a medication.

Special Protocol Assessment

The Federal Food, Drug, and Cosmetic Act directs the FDA to meet with sponsors, pursuant to a sponsor's written request, for the purpose of reaching agreement on the design and size of clinical trials intended to form the primary basis of an efficacy claim in a New Drug Application (NDA) or a Biologic Licensing Application (BLA). If an agreement is reached, the FDA will reduce the agreement to writing and make it part of the administrative record. This agreement is called a special protocol assessment (SPA). While the FDA's guidance on SPAs states that documented SPAs should be considered binding on the review division, the FDA has latitude to change its assessment if certain exceptions apply. Exceptions include public health concerns emerging that were unrecognized at the time of the protocol assessment, identification of a substantial scientific issue essential to the safety or efficacy testing that later comes to light, a sponsor's failure to follow the protocol agreed upon, or the FDA's reliance on data, assumptions or information that are determined to be wrong.

Review and Approval in the United States

Following pivotal or Phase 3 trial completion, data are analyzed to determine safety and efficacy. Data are then filed with the FDA in an NDA or BLA, along with proposed labeling for the product and information about the manufacturing and testing processes and facilities that will be used to ensure product quality. In the United States, FDA approval of an NDA or BLA must be obtained before marketing a pharmaceutical product. The NDA or BLA must contain proof of safety, purity, potency, and efficacy, which entails extensive pre-clinical and clinical testing.

The FDA will likely re-analyze the clinical trial data, which could result in extensive discussions between the FDA and us during the review process. The review and evaluation of applications by the FDA is extensive and time consuming and may take several years to complete. The FDA may conduct a pre-approval inspection of the manufacturing facilities for the new product to determine whether they comply with current good manufacturing practice requirements and may also audit data from clinical and pre-clinical trials.

There is no assurance that the FDA will act favorably or quickly in making such reviews and significant difficulties or costs may be encountered in our efforts to obtain FDA approvals. The FDA may require that certain contraindications, warnings or precautions be included in the product labeling, or may condition the approval of the NDA or BLA on other changes to the proposed labeling, development of adequate controls and specifications, or a commitment to conduct post-marketing testing or clinical trials and surveillance programs to monitor the safety of approved products that have been commercialized. Further, the FDA may place conditions on approvals including the requirement for a risk evaluation and mitigation strategy, or REMS, to assure the safe use of the drug. If the FDA concludes a REMS is needed, the sponsor of the NDA or BLA must submit a proposed REMS; the FDA will not approve the NDA or BLA without an approved REMS, if required. A REMS could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of products. Product approvals may be withdrawn for non-compliance with regulatory standards or if problems occur.

Orphan Drug Designation

Under the Orphan Drug Act, the FDA may grant orphan drug designation 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 United States. Orphan product designation must be requested before submitting an NDA or BLA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan product designation does not convey any advantage in or shorten the duration of regulatory review and approval process. In addition to the potential period of exclusivity, orphan designation makes a company eligible for grant funding of up to \$400,000 per year for four years to defray costs of clinical trial expenses, tax credits for clinical research expenses and potential exemption from the FDA application user fee.

If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan drug exclusivity, which means 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 (i) the drug's orphan designation is revoked; (ii) its marketing approval is withdrawn; (iii) the orphan exclusivity holder consents to the approval of another applicant's product; (iv) the orphan exclusivity holder is unable to assure the availability of a sufficient quantity of drug; or (v) a showing of clinical superiority to the product with orphan exclusivity by a competitor product. 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 drug exclusivity. We have received orphan drug designation for lenabasum for cystic fibrosis, systemic sclerosis, and dermatomyositis. There can be no assurance that we will receive orphan drug designation for our products.

Drug Development in Europe

In the European Union, our future products may also be subject to extensive regulatory requirements. Similar to the U.S., the marketing of medicinal products is subject to the granting of marketing authorizations by regulatory agencies. Also, as in the U.S., the various phases of pre-clinical and clinical research in the European Union are subject to significant regulatory controls.

Review and Approval in the European Union

In the European Union, approval of new medicinal products can be obtained through one of three processes: the mutual recognition procedure, the centralized procedure, and the decentralized procedure. We intend to determine which process we will follow, if any, in the future.

Mutual Recognition Procedure: An applicant submits an application in one European Union member state, known as the reference member state. Once the reference member state has granted the marketing authorization, the applicant may choose to submit applications in other concerned member states, requesting them to mutually recognize the marketing authorizations already granted. Under this mutual recognition process, authorities in other concerned member states have 55 days to raise objections, which must then be resolved by discussion among the concerned member states, the reference member state and the applicant within 90 days of the commencement of the mutual recognition procedure. If any disagreement remains, all considerations by authorities in the concerned member states are suspended and the disagreement is resolved through an arbitration process. The mutual recognition procedure results in separate national marketing authorizations in the reference member state.

Centralized Procedure: This procedure is currently mandatory for products developed by means of a biotechnological process and optional for new active substances and other “innovative medicinal products with novel characteristics.” Under this procedure, an application is submitted to the European Agency for the Evaluation of Medical Products. Two European Union member states are appointed to conduct an initial evaluation of each application. These countries each prepare an assessment report that is then used as the basis of a scientific opinion of the Committee on Proprietary Medical Products. If this opinion is favorable, it is sent to the European Commission, which drafts a decision. After consulting with the member states, the European Commission adopts a decision and grants a marketing authorization, which is valid throughout the European Union and confers the same rights and obligations in each of the member states as a marketing authorization granted by that member state.

Decentralized Procedure: The most recently introduced of the three processes for obtaining approval of new medicinal processes in the European Union, the decentralized procedure is similar to the mutual recognition procedure described above, but with differences in the timing that key documents are provided to concerned member states by the reference member state, the overall timing of the procedure and the possibility of, among other things, “clock stops” during the procedure.

Post-Marketing Requirements

Following approval of a new product, a pharmaceutical company and the approved product are subject to continuing regulation by the FDA and other federal and state regulatory authorities, including, among other things, monitoring and recordkeeping activities, reporting to applicable regulatory authorities of adverse experiences with the product, providing the regulatory authorities with updated safety and efficacy information, product sampling and distribution requirements, and complying with promotion and advertising requirements, which include, among others, standards for direct-to-consumer advertising, restrictions on promoting drugs for uses or in patient populations not described in the drug’s approved labeling (known as “off-label use”), and limitations on industry-sponsored scientific and educational activities. Although physicians may prescribe legally available drugs for off-label uses, manufacturers may not market or promote such off-label uses. Modifications or enhancements to the products or labeling or changes of site of manufacture are often subject to the approval of the FDA and other regulators, which may or may not be received or may result in a lengthy review process. The FDA regulations require the products be manufactured in specific approved facilities and in accordance with current good manufacturing practices, and NDA and BLA holders must list their products and register their manufacturing establishments with the FDA. These regulations also impose certain organizational, procedural and documentation requirements with respect to manufacturing and quality assurance activities. Drug manufacturers and other entities involved in the manufacture and distribution of approved drugs are subject to periodic unannounced inspections by the FDA and certain state agencies for compliance with current good manufacturing practice and other laws. NDA and BLA holders using contract manufacturers, laboratories or packagers are responsible for the selection and monitoring of qualified firms. These firms are subject to inspections by the FDA at any time, and the discovery of violative conditions could result in enforcement actions that interrupt the operation of any such facilities or the ability to distribute products manufactured, processed or tested by them.

Other Regulatory Matters

Manufacturing, sales, promotion and other activities following product approval are also subject to regulation by numerous regulatory authorities in addition to the FDA, including, in the United States, the Centers for Medicare & Medicaid Services, or CMS, other divisions of the Department of Health and Human Services, the Drug Enforcement Administration, the Consumer Product Safety Commission, the Federal Trade Commission, the Occupational Safety & Health Administration, the Environmental Protection Agency, and state and local governments. These regulations include:

- the federal healthcare program anti-kickback law which prohibits, among other things, persons from soliciting, receiving or providing remuneration, directly or indirectly, to induce either the referral of an individual, for an item or service or the purchasing or ordering of a good or service, for which payment may be made under federal healthcare programs such as the Medicare and Medicaid programs;
- federal false claims laws which prohibit, among other things, individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other government reimbursement programs that are false or fraudulent. The government may assert that a claim including items or services resulting from a violation of the federal healthcare program anti-kickback law or related to off-label promotion constitutes a false or fraudulent claim for purposes of the federal false claims laws;
- the Federal Physician Payments Sunshine Act within the ACA, and its implementing regulations, require that certain manufacturers of drugs, devices, biological and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program (with certain exceptions) to report information related to certain payments or other transfers of value made or distributed to physicians and teaching hospitals, or to entities or individuals at the request of, or designated on behalf of, the physicians and teaching hospitals and to report annually certain ownership and investment interests held by physicians and their immediate family members; and
- the Health Insurance Portability and Accountability Act, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, and its implementing regulations, imposes certain requirements relating to the privacy, security and transmission of individually identifiable health information. Among other things, HITECH makes HIPAA’s privacy and security standards directly applicable to “business associates”—independent contractors or agents of covered entities that receive or obtain protected health information in connection with providing a service on behalf of a covered entity. HITECH also created four new tiers of civil monetary penalties, amended HIPAA to make civil and criminal penalties directly applicable to business associates and possibly other persons, and gave state attorneys general new authority to file civil actions for damages or injunctions in federal courts to enforce the federal HIPAA laws and seek attorneys’ fees and costs associated with pursuing federal civil actions.
- applicable child-resistant packaging requirements under the U.S. Poison Prevention Packaging Act.
- The Lanham Act and federal antitrust laws.
- state law equivalents of each of the above federal laws, such as anti-kickback and false claims laws, which may apply to items or services reimbursed by any third-party payer, including commercial insurers, and state laws governing the privacy and security of health information in certain circumstances, many of which differ from each other in significant ways and often are not preempted by federal laws, thus complicating compliance efforts.

Distribution of pharmaceutical products is subject to additional requirements and regulations, including extensive record-keeping, licensing, traceability, and storage and security requirements intended to prevent the unauthorized sale of pharmaceutical products

The handling of any controlled substances must comply with the U.S. Controlled Substances Act and the Controlled Substances Import and Export Act. In the U.S., our product candidate, lenabasum, is currently classified as Schedule I controlled substance as defined in the Controlled Substance Act (the “CSA”).

Schedule I controlled substances are pharmaceutical products subject to specific regulations under the CSA, that establishes, among other things, certain registration, manufacturing quotas, security, recordkeeping, reporting, import, export and other requirements administered by the DEA. All parties responsible for the manufacturing, distribution and testing the drug in clinical studies must apply for and obtain a license from the DEA before they are permitted to perform these activities with lenabasum. Furthermore, these parties must have the security, control, recordkeeping, reporting and inventory mechanisms required by the DEA to prevent drug loss and diversion. All licensed facilities are required to renew their registrations annually if they intend to continue to work with our drug. The DEA conducts periodic inspections of certain registered establishments that handle controlled substances. We have been working with our manufacturers, distributors, exporters and clinical sites to obtain the necessary licenses to work with lenabasum. The parties responsible for the manufacturing, distribution and export of lenabasum have already applied for and have been granted DEA licenses and a number of institutions responsible for conducting our current clinical studies have also been granted DEA licenses.

Individual states have also established controlled substance laws and regulations. Though state-controlled substances laws often mirror federal law because the states are separate jurisdictions, they may separately schedule drugs, as well. While some states automatically schedule a drug based on federal action, other states schedule drugs through rulemaking or a legislative action. The requirement for state registrations could also result in delay of the manufacturing, distribution of lenabasum or in the completion of our current clinical studies. We and our manufacturing vendors and clinical sites must also obtain separate state registrations, permits or licenses in order to be able to obtain, handle, and distribute controlled substances for clinical trials or commercial sale, and failure to meet applicable regulatory requirements could lead to enforcement and sanctions by the states in addition to those from the DEA or otherwise arising under federal law.

Third-Party Payer Coverage and Reimbursement

Significant uncertainty exists as to the coverage and reimbursement status of any of our drug candidates that ultimately may obtain regulatory approval. In both the United States and foreign markets, our ability to commercialize our product candidates successfully, and to attract commercialization partners for our product candidates, depends in significant part on the availability of adequate financial coverage and reimbursement from third-party payers, including, in the United States, governmental payers such as the Medicare and Medicaid programs, managed care organizations, and private health insurers. Medicare is a federally funded program managed by the CMS, through local fiscal intermediaries and carriers that administer coverage and reimbursement for certain healthcare items and services furnished to the elderly and disabled. Medicaid is an insurance program for certain categories of patients whose income and assets fall below state defined levels and who are otherwise uninsured that is both federally and state funded and managed by each state. The federal government sets general guidelines for Medicaid and each state creates specific regulations that govern its individual program. Each payer has its own process and standards for determining whether it will cover and reimburse a procedure or particular product. Private payers often rely on the lead of the governmental payers in rendering coverage and reimbursement determinations. Therefore, achieving favorable CMS coverage and reimbursement is usually a significant gating issue for successful introduction of a new product. The competitive position of some of our products will depend, in part, upon the extent of coverage and adequate reimbursement for such products and for the procedures in which such products are used. Prices at which we or our customers seek reimbursement for our product candidates can be subject to challenge, reduction or denial by the government and other payers.

The United States Congress and state legislatures may, from time to time, propose and adopt initiatives aimed at cost containment, which could impact our ability to sell our product candidates profitably. For example, the two-year spending law signed by the President of United States on February 9, 2018 includes a provision raising the manufacturer discount to 70% in 2019 in the Medicare Part D coverage gap, also known as the “donut hole.” Under prior law, manufacturers were required to provide a 50% discount on prescription drugs purchased in the donut hole. Manufacturers of branded drugs will face much higher liabilities from donut hole payments beginning in 2019, estimated at multiple billions of dollars for some of the largest companies.

The cost of pharmaceuticals continues to generate substantial governmental and third-party payer interest. We expect that the pharmaceutical industry will experience pricing pressures due to the trend toward managed healthcare, the increasing influence of managed care organizations and additional legislative proposals. Our results of operations could be adversely affected by current and future healthcare reforms.

Some third-party payers also require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse healthcare providers that use such therapies. While we cannot predict whether any proposed cost-containment measures will be adopted or otherwise implemented in the future, the announcement or adoption of these proposals could have a material adverse effect on our ability to obtain adequate prices for our product candidates and operate profitably.

In addition, in some foreign countries, the proposed pricing for a drug must be approved before it may be lawfully marketed. The requirements governing drug pricing vary widely from country to country. For example, the European Union provides options for its member states to restrict the range of medicinal products for which their national health insurance systems provide reimbursement and to control the prices of medicinal products for human use. A member state may approve a specific price for the medicinal product, or it may instead adopt a system of direct or indirect controls on the profitability of the company placing the medicinal product on the market. There can be no assurance that any country that has price controls or reimbursement limitations for pharmaceutical products will allow favorable reimbursement and pricing arrangements for any of our products. Historically, products launched in the European Union do not follow price structures of the United States and generally tend to be significantly lower.

Employees

We had 33 full-time employees at December 31, 2022. All our employees are engaged in administration, finance, clinical, manufacturing, regulatory and business development functions. We believe our relations with our employees are good. In addition, we utilize and will continue to utilize consultants, clinical research organizations and third parties to perform our pre-clinical studies, clinical studies, manufacturing, and regulatory functions.

Corporate Information

Corbus Pharmaceuticals, Inc. (formerly known as JB Therapeutics Inc.), was incorporated on April 24, 2009 under the laws of the State of Delaware. On April 11, 2014, JB Therapeutics, Inc. completed a merger with Corbus Pharmaceuticals Holdings, Inc. and changed its name to Corbus Pharmaceuticals, Inc. Upon the consummation of the merger, Corbus Pharmaceuticals, Inc. became a wholly-owned subsidiary of Corbus Pharmaceuticals Holdings, Inc. which continues to operate the business of Corbus Pharmaceuticals, Inc. Our principal executive offices are located at 500 River Ridge Drive, Norwood, Massachusetts 02062, and our telephone number is (617) 963-0100. Our website address is www.corbuspharma.com.

We make available free of charge through the Investor Relations link on our website, www.corbuspharma.com, access to press releases and investor presentations, as well as all materials that we file electronically with the SEC, including our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after electronically filing such materials with, or furnishing them to, the SEC. During the period covered by this Form 10-K, we made all such materials available through our website as soon as reasonably practicable after filing such materials with the SEC. In addition, the SEC maintains an Internet website, www.sec.gov, that contains reports, proxy and information statements and other information that we file electronically with the SEC.

This report and the information incorporated herein by reference contain references to trademarks, service marks and trade names owned by us or other companies. Solely for convenience, trademarks, service marks and trade names referred to in this report and the information incorporated herein, 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, service marks and trade names. We do not intend our use or display of other companies' trade names, service marks or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. Other trademarks, trade names and service marks appearing in this report are the property of their respective owners.

ITEM 1A. RISK FACTORS

An investment in our common stock is speculative and illiquid and involves a high degree of risk including the risk of a loss of your entire investment. You should carefully consider the risks and uncertainties described below and the other information contained in this report and our other reports filed with the Securities and Exchange Commission. The risks set forth below are not the only ones facing us. Additional risks and uncertainties may exist that could also adversely affect our business, operations and financial condition. If any of the following risks actually materialize, our business, financial condition and/or operations could suffer. In such event, the value of our common stock could decline, and you could lose all or a substantial portion of the money that you pay for our common stock.

Summary of Risks Associated with Our Business

Our business and an investment in our company is subject to numerous risks and uncertainties, including those highlighted in the section titled “Risk Factors” immediately following this summary. Some of these risks include:

- We have never generated any product revenues;
- We expect to incur significant losses for the foreseeable future and may never achieve or maintain profitability;
- We will need substantial additional funding, and certain terms included in our financing transactions may restrict our ability to raise such capital at the times and in the manner we may require;
- We expect that we will rely on third parties to assist us in conducting clinical trials for our drug candidates, and if these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our drug candidates and our business would be substantially harmed;
- Changes in geopolitical conditions, U.S.-China trade relations and other factors beyond our control may adversely impact our business and operating results;
- We will require additional capital to fund our operations, and if we fail to obtain necessary financing, we may not be able to complete the development and commercialization of our product candidates;
- Clinical trials are very expensive, time-consuming, difficult to design and implement and involve an uncertain outcome;
- If we are not able to obtain any required regulatory approvals for our drug candidates, we will not be able to commercialize our product candidates and our ability to generate revenue will be limited;
- We face competition from other biotechnology and pharmaceutical companies and our operating results will suffer if we fail to compete effectively;
- We do not have our own manufacturing capabilities and will rely on third parties to produce clinical and commercial supplies of our product candidates;
- We are, and will be, completely dependent on third parties to manufacture our drug candidates, and our commercialization of our drug candidates could be halted, delayed or made less profitable if those third parties fail to obtain manufacturing approval from the FDA or comparable foreign regulatory authorities, fail to provide us with sufficient quantities of our drug candidates or fail to do so at acceptable quality levels or prices;
- We have in-licensed a portion of our intellectual property, and if we fail to comply with our obligations under these arrangements, we could lose such intellectual property rights or owe damages to the licensor of such intellectual property; and
- We do not currently intend to pay dividends on our common stock in the foreseeable future, and consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

Risk Related to our Company and our Business

Risks Related to Our Financial Position and Need for Capital

We are a biopharmaceutical company with a limited operating history.

We are a biopharmaceutical company with a limited operating history. All of our product candidates that we do not intend to out-license are in the discovery stage, pre-clinical, or clinical development stage. We must complete clinical studies and other development activity and receive regulatory approval of an NDA or BLA, before commercial sales of a product can commence. The likelihood of success of our business plan must be considered in light of the problems, substantial expenses, difficulties, complications and delays frequently encountered in connection with developing and expanding early-stage businesses and the regulatory and competitive environment in which we operate. Pharmaceutical product development is a highly speculative undertaking, involves a substantial degree of risk and is a capital-intensive business.

Accordingly, you should consider our prospects in light of the costs, uncertainties, delays and difficulties frequently encountered by companies in the early stages of development, especially clinical pharmaceutical companies such as ours. Potential investors should carefully consider the risks and uncertainties that a company with a limited operating history will face. In particular, potential investors should consider that we cannot assure you that we will be able to:

- successfully implement or execute our current business plan, and we cannot assure you that our business plan is sound;
- successfully manufacture our clinical products and establish commercial drug supply;
- successfully complete the pre-clinical and clinical trials necessary to obtain regulatory approval for the marketing of our drug candidates;
- secure market exclusivity and/or adequate intellectual property protection for our drug candidates;
- attract and retain an experienced management and advisory team;
- secure acceptance of our drug candidates in the medical community and with third party payors and consumers;
- launch commercial sales of our drug candidates, whether alone or in collaboration with others; and
- raise sufficient funds in the capital markets to effectuate our business plan.

If we cannot successfully execute any one of the foregoing, our business may not succeed, and your investment will be adversely affected.

We have incurred operating losses in each year since our inception and expect to continue to incur substantial losses for the foreseeable future. We may never become profitable or, if we achieve profitability, be able to sustain profitability.

We expect to incur substantial expenses without corresponding revenues unless and until we are able to obtain regulatory approval and successfully commercialize any of our drug candidates. To date, we have not generated any revenue from our drug candidates, and we expect to incur significant expense to complete our pre-clinical and clinical program for our drug candidates in the United States and elsewhere. We may never be able to obtain regulatory approval for the marketing of our drug candidates in any indication in the United States or internationally. Even if we are able to commercialize our drug candidates, there can be no assurance that we will generate significant revenues or ever achieve profitability. Our net losses for the years ended December 31, 2022 and December 31, 2021 were approximately \$42,347,000 and \$45,640,000, respectively. As of December 31, 2022, we had an accumulated deficit of approximately \$392.1 million.

We may elect to pursue FDA approval for our drug candidates, which will result in significant additional research and development expenses. As a result, we expect to continue to incur substantial losses for the foreseeable future, and these losses will increase. We are uncertain when or if we will be able to achieve or sustain profitability. If we achieve profitability in the future, we may not be able to sustain profitability in subsequent periods. Failure to become and remain profitable would impair our ability to sustain operations and adversely affect the price of our common stock and our ability to raise capital.

Our cash, cash equivalents, or investments will only fund our operations for a limited time, and we will need to raise additional capital to support our development and commercialization efforts.

We are currently operating at a loss and expect our operating costs will increase significantly as we incur further costs related to pre-clinical development and the clinical trials for our drug candidates. As of December 31, 2022, we held cash, cash equivalents, and investments of approximately \$59.2 million.

We expect the cash, cash equivalents, and investments of approximately \$59.2 million at December 31, 2022 to be sufficient to meet our operating and capital requirements through the second quarter of 2024, based on planned expenditures.

We may seek additional capital through a combination of private and public equity offerings, debt financings and strategic collaborations. Debt financing, if obtained, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, and could increase our expenses and require that our assets secure such debt.

Equity financing, if obtained, could result in dilution to our then existing stockholders and/or require such stockholders to waive certain rights and preferences. If such financing is not available on satisfactory terms, or is not available at all, we may be required to delay, scale back or eliminate the development of business opportunities and our operations and financial condition may be materially adversely affected. We can provide no assurances that any additional sources of financing will be available to us on favorable terms, if at all. In addition, if we are unable to secure sufficient capital to fund our operations, we may choose to pursue, as an alternative, strategic collaborations that could require us to share commercial rights to our drug candidates with third parties in ways that we currently do not intend or on terms that may not be favorable to us. If we choose to pursue additional indications and/or geographies for our drug candidates or otherwise expand more rapidly than we presently anticipate we may also need to raise additional capital sooner than expected.

Our Loan and Security Agreement contains restrictive and financial covenants that may limit our operating flexibility.

On July 28, 2020, we entered into a Loan and Security Agreement (“the Loan and Security Agreement”) with our subsidiary, Corbus Pharmaceuticals, Inc., as borrower, us, as guarantor, and each lender party thereto (the “Lenders”), K2 HealthVentures LLC, an unrelated third party, as administrative agent for the Lenders, and Ankura Trust Company, LLC, an unrelated third party, as collateral agent for the Lenders, pursuant to which K2HV may provide us with term loans in an aggregate principal amount of up to \$50,000,000. The Loan and Security Agreement is secured by a lien covering substantially all of our personal property, excluding intellectual property.

The Loan and Security Agreement contains customary representations, warranties, and covenants, including restrictive covenants by the Company and Borrower limiting additional indebtedness, liens, mergers and acquisitions, dispositions, investments, distributions, subordinated debt, transactions with affiliates and fundamental changes. We therefore may not be able to engage in any of the foregoing types of transactions unless we obtain the consent of K2 HealthVentures or prepay the outstanding amount under the Loan and Security Agreement. The Loan and Security Agreement also contains certain financial covenants, including requirements to maintain unrestricted cash in the amount of \$10,000,000 or the amount of all principal loans outstanding if certain regulatory and developmental milestones do not occur.

The restrictions and covenants in the Loan and Security Agreement, as well as those contained in any future debt financing agreements that we may enter into, may restrict our ability to finance our operations and engage in, expand or otherwise pursue our business activities and strategies. Our ability to comply with these covenants and restrictions may be affected by events beyond our control, and breaches of these covenants and restrictions could result in a default under the loan agreement and any future financing agreements that we may enter into.

Risks Related to Product Development, Regulatory Approval, Manufacturing and Commercialization

Our success is dependent upon successful development of our drug candidates in our pipeline or that we may acquire. If we are unable to generate revenues from any product candidates, our ability to create stockholder value will be limited.

We do not generate revenues from any FDA approved drug products. Our current business currently depends on the successful development, regulatory approval, and commercialization of our pre-clinical drug candidates, which may never occur.

CRB-701 is currently in a Phase 1 clinical trial being conducted by CSPP in China. We are completing pre-clinical testing for CRB-601 in the U.S. and we expect to file an IND in 2023. We note that most drug candidates never reach the clinical development stage and even those that do have only a small chance of successfully completing clinical development and gaining regulatory approval. Notably, we advanced our product candidate lenabasum to a phase 3 study. In June 2021, we announced that the primary endpoint in our DETERMINE phase 3 study of lenabasum for treatment of dermatomyositis was not met. We will continue to face risks related to the uncertainty of clinical trials and success in early phases of pre-clinical and clinical trials does not ensure that later clinical trials will be successful.

Drug development involves a lengthy and expensive process with an uncertain outcome, and results of earlier studies and trials may not be predictive of future trial results.

Our pre-clinical and clinical trials may be unsuccessful, which would materially harm our business. Even if our initial trials are successful, we will be required to conduct additional trials to establish the safety and efficacy of our drug candidates before an NDA or BLA can be filed with the FDA for marketing approval of any of our drug candidates.

Drug testing is expensive, is difficult to design and implement, can take many years to complete and is uncertain as to outcome. Success in early phases of pre-clinical and clinical trials does not ensure that later clinical trials will be successful, and interim results of a clinical trial do not necessarily predict final results. A failure of one or more of our trials can occur at any stage of testing. We may experience numerous unforeseen events during, or as a result of, the drug testing process that could delay or prevent our ability to receive regulatory approval or commercialize our drug candidates. The research, testing, manufacturing, labeling, packaging, storage, approval, sale, marketing, advertising and promotion, pricing, export, import and distribution of drug products are subject to extensive regulation by the FDA and other regulatory authorities in the United States and other countries, which regulations differ from country to country. We are not permitted to market any of our drug candidates as prescription pharmaceutical products in the United States until we receive approval of an NDA or BLA from the FDA or in foreign markets until we receive the requisite approval from comparable regulatory authorities in such countries. In the United States, the FDA generally requires the completion of pre-clinical and clinical trials of each drug to establish its safety and efficacy and extensive pharmaceutical development to ensure its quality before an NDA or BLA is approved. Regulatory authorities in other jurisdictions impose similar requirements. Of the large number of drugs in development, only a small percentage result in the submission of an NDA or BLA to the FDA and even fewer are eventually approved for commercialization. We have never submitted an NDA or BLA to the FDA or any comparable applications to other regulatory authorities. If our development efforts for our drug candidates, including regulatory approval, are not successful for our planned indications, or if adequate demand for our drug candidates is not generated, our business will be harmed.

Receipt of necessary regulatory approval is subject to a number of risks, including the following:

- pre-clinical testing may not yield results that justify progressing to clinical testing;
- the FDA or comparable foreign regulatory authorities or institutional review boards, or IRBs, may disagree with the design or implementation of our clinical trials;
- we may not be able to provide acceptable evidence of the safety and efficacy of our drug candidates;
- the results of our clinical trials may not be satisfactory or may not meet the level of statistical or clinical significance required by the FDA, the European Medicines Agency, or EMA, or other comparable foreign regulatory authorities for marketing approval;
- the dosing of our drug candidates in a particular clinical trial may not be at an optimal level;
- patients in our clinical trials may suffer adverse effects for reasons that may or may not be related to our drug candidates;
- the data collected from clinical trials may not be sufficient to support the submission of an NDA, BLA, or other submission or to obtain regulatory approval in the United States or elsewhere;
- the FDA or comparable foreign regulatory authorities may fail to approve the manufacturing processes or facilities of third-party manufacturers with which we contract for clinical and commercial supplies;
- the approval policies or regulations of the FDA or comparable foreign regulatory authorities may significantly change in a manner rendering our clinical data insufficient for approval; and
- the FDA or comparable foreign regulatory authorities may decide that the clinical trial endpoints we have chosen, the statistical analysis plans that we use, or any other parameter that we rely on to show the safety and efficacy of our drugs, are not parameters that can be used to support approval of our products.

Failure to obtain regulatory approval for any of our drug candidates for the foregoing or any other reasons will prevent us from commercializing such product candidate as a prescription product, and our ability to generate revenue will be materially impaired. We cannot guarantee that regulators will agree with the endpoints that we have chosen to use in our clinical trials, our assessment of the results of our clinical trials or that such trials will be considered by regulators to have shown safety or efficacy of our product candidates. The FDA, EMA and other regulators 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 clinical trials, or pre-clinical or other studies. In addition, varying interpretations of the data obtained from pre-clinical and clinical testing could delay, limit or prevent regulatory approval of a product candidate.

We have only limited experience in filing the applications necessary to gain regulatory approvals and expect to rely on consultants and third-party contract research organizations, or CROs, with expertise in this area to assist us in this process. Securing FDA approval requires the submission of pre-clinical, clinical and/or pharmacokinetic data, information about product manufacturing processes and inspection of facilities and supporting information to the FDA for each therapeutic indication to establish a product candidate's safety and efficacy for each indication. Our drug candidates may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining regulatory approval or prevent or limit commercial use with respect to one or all intended indications.

The process of obtaining regulatory approvals is expensive, often takes many years, if approval is obtained at all, and can vary substantially based upon, among other things, the type, complexity and novelty of the product candidates involved, the jurisdiction in which regulatory approval is sought and the substantial discretion of regulatory authorities. Changes in the regulatory approval policy during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for a submitted product application may cause delays in the approval or rejection of an application. Regulatory approval obtained in one jurisdiction does not necessarily mean that a product candidate will receive regulatory approval in all jurisdictions in which we may seek approval, but the failure to obtain approval in one jurisdiction may negatively impact our ability to seek approval in a different jurisdiction. Failure to obtain regulatory marketing approval for any of our drug candidates in any indication will prevent us from commercializing such product candidates, and our ability to generate revenue will be materially impaired.

If we are not able to obtain any required regulatory approvals for our drug candidates, we will not be able to commercialize our product candidates and our ability to generate revenue will be limited.

Drug testing is expensive and can take many years to complete, and its outcome is inherently uncertain. Failure can occur at any time during the clinical trial process. Our drug candidates are in various stages of discovery, pre-clinical, and clinical testing. Pre-clinical tests are performed at an early stage of a product's development and provide information about a drug candidate's safety and effectiveness on laboratory animals. Pre-clinical tests can last years. If a product passes its pre-clinical tests satisfactorily and we determine that further development is warranted, we would file an IND application for the product with the FDA, and if the FDA gives its approval, we would begin Phase 1 clinical tests. If Phase 1 test results are satisfactory and the FDA gives its approval, we can begin Phase 2 clinical tests. If Phase 2 test results are satisfactory and the FDA gives its approval, we can begin Phase 3 pivotal studies. Once clinical testing is completed and an NDA or BLA is filed with the FDA, it may take more than a year to receive FDA approval.

The results of pre-clinical studies and early clinical trials may not be predictive of the results of later-stage clinical trials. We cannot assure you that the FDA will view the results as we do or that any future trials of our drug candidates will achieve positive results. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy traits despite having progressed through pre-clinical studies and initial clinical trials. A number of companies in the pharmaceutical industry have suffered significant setbacks in advanced clinical trials due to lack of efficacy or adverse safety profiles, notwithstanding promising results in earlier trials. Any future clinical trial results for our drug candidates may not be successful.

In all cases, we must show that a drug candidate is both safe and effective before the FDA, or drug approval agencies of other countries where we intend to sell the product, will approve it for sale. Our research and testing programs must comply with drug approval requirements both in the United States and in other countries, since we are developing our drug candidates with the intention to, or could later decide to, commercialize them both in the U.S. and abroad. A product may fail for safety or effectiveness at any stage of the testing process. A major risk we face is the possibility that none of our products under development will come through the testing process to final approval for sale, with the result that we cannot derive any commercial revenue from them after investing significant amounts of capital in multiple stages of pre-clinical and clinical testing. In addition, a number of factors could contribute to a lack of favorable safety and efficacy results for our drug candidates. For example, our trials could result in increased variability due to varying site characteristics, such as local standards of care, differences in evaluation period and surgical technique, and due to varying patient characteristics, including demographic factors and health status.

Even if we receive regulatory approval for our drug candidates, we still may not be able to successfully commercialize any of our products, and the revenue that we generate from sales, if any, may be limited.

If approved for marketing, the commercial success of our drug candidates will depend upon their acceptance by the medical community, including physicians, patients and health care payors. The degree of market acceptance of our drug candidates will depend on a number of factors, including:

- demonstration of clinical safety and efficacy;
- relative convenience, pill burden and ease of administration;
- the prevalence and severity of any adverse effects;
- the willingness of physicians to prescribe our drug candidates and of the target patient population to try new therapies;
- safety, tolerability and efficacy of our drug candidates compared to competing products;
- safety of competing products may impact our drug candidates;
- the introduction of any new products that may in the future become available to treat indications for which our drug candidates may be approved;
- new procedures or methods of treatment that may reduce the incidences of any of the indications in which our drug candidates may show utility;
- pricing and cost-effectiveness;
- the inclusion or omission of our drug candidates in applicable treatment guidelines;
- the effectiveness of our or any future collaborators' sales and marketing strategies;
- limitations or warnings contained in FDA-approved labeling;
- our ability to obtain and maintain sufficient third-party coverage or reimbursement from government health care programs, including Medicare and Medicaid, private health insurers and other third-party payors; and
- the willingness of patients to pay out-of-pocket in the absence of third-party coverage or reimbursement.

If any of our drug candidates are approved, but do not achieve an adequate level of acceptance by physicians, health care payors and patients, we may not generate sufficient revenue and we may not be able to achieve or sustain profitability. Our efforts to educate the medical community and third-party payors on the benefits of our drug candidates may require significant resources and may never be successful.

In addition, even if we obtain regulatory approvals, the timing or scope of any approvals may prohibit or reduce our ability to commercialize our drug candidates successfully. For example, if the approval process takes too long, we may miss market opportunities and give other companies the ability to develop competing products or establish market dominance. Any regulatory approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render our drug candidates not commercially viable. For example, regulatory authorities may approve our drug candidates for fewer or more limited indications than we request, may not approve the prices we intend to charge for our drug candidates, may grant approval contingent on the performance of costly post-marketing clinical trials, or may approve our drug candidates with labels that do not include the labeling claims necessary or desirable for the successful commercialization of a particular indication. Further, the FDA or comparable foreign regulatory authorities may place conditions on approvals, such as risk management plans and a Risk Evaluation and Mitigation Strategy, or REMS, to assure the safe use of the drug. If the FDA concludes a REMS is needed, the sponsor of the NDA or BLA must submit a proposed REMS; the FDA will not approve the NDA or BLA without an approved REMS, if required. A REMS could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools. The FDA may also require a REMS for an approved product when new safety information emerges. Any of these limitations on approval or marketing could restrict the commercial promotion, distribution, prescription or dispensing of our drug candidates. Moreover, product approvals may be withdrawn for non-compliance with regulatory standards or if problems occur following the initial marketing of the product. Any of the foregoing scenarios could materially harm the commercial success of our drug candidates.

Even if we obtain marketing approval for our drug candidates, we will be subject to ongoing obligations and continued regulatory review, which may result in significant additional expense. Additionally, our drug candidates could be subject to labeling and other restrictions and withdrawal from the market, and we may be subject to penalties if we fail to comply with regulatory requirements or if we experience unanticipated problems with our drug candidates.

Even if we obtain United States regulatory approval of our drug candidates for an indication, the FDA may still impose significant restrictions on their indicated uses or marketing or the conditions of approval or impose ongoing requirements for potentially costly and time-consuming post-approval studies, including Phase 4 clinical trials, and post-market surveillance to monitor safety and efficacy. Our drug candidates will also be subject to ongoing regulatory requirements governing the manufacturing, labeling, packaging, storage, distribution, safety surveillance, advertising, promotion, recordkeeping and reporting of adverse events and other post-market information. These requirements include registration with the FDA, continued compliance with current Good Clinical Practices regulations, or cGCPs, for any clinical trials that we conduct post-approval, continued compliance with the CSA and ongoing review by the DEA. In addition, manufacturers of drug products and their facilities are subject to continual review and periodic inspections by the FDA and other regulatory authorities for compliance with current Good Manufacturing Practices, or cGMP, requirements relating to quality control, quality assurance and corresponding maintenance of records and documents.

With respect to sales and marketing activities by us or any future partner, advertising and promotional materials must comply with FDA rules in addition to other applicable federal, state and local laws in the United States and similar legal requirements in other countries. In the United States, the distribution of product samples to physicians must comply with the requirements of the U.S. Prescription Drug Marketing Act. Application holders must obtain FDA approval for product and manufacturing changes, depending on the nature of the change. We may also be subject, directly or indirectly through our customers and partners, to various fraud and abuse laws, including, without limitation, the U.S. Anti-Kickback Statute, U.S. False Claims Act, and similar state laws, which impact, among other things, our proposed sales, marketing, and scientific/educational grant programs. If we participate in the U.S. Medicaid Drug Rebate Program, the Federal Supply Schedule of the U.S. Department of Veterans Affairs, or other government drug programs, we will be subject to complex laws and regulations regarding reporting and payment obligations. All of these activities are also potentially subject to U.S. federal and state consumer protection and unfair competition laws. Similar requirements exist in many of these areas in other countries.

In addition, if any of our drug candidates are approved for an indication, our product labeling, advertising, and promotion would be subject to regulatory requirements and continuing regulatory review. The FDA strictly regulates the promotional claims that may be made about prescription products. In particular, a product may not be promoted for uses that are not approved by the FDA as reflected in the product's approved labeling. If we receive marketing approval for any of our drug candidates, physicians may nevertheless legally prescribe such products to their patients in a manner that is inconsistent with the approved label. However, if we are found to have promoted such off-label uses, we may become subject to significant liability and government fines. The federal government has levied large civil and criminal fines against companies for alleged improper promotion and has enjoined several companies from engaging in off-label promotion. The FDA has also requested that companies enter into consent decrees of permanent injunctions under which specified promotional conduct is changed or curtailed.

If we or a regulatory agency discover previously unknown problems with a product, such as adverse events of unanticipated severity or frequency or problems with the facility where the product is manufactured, or if we or our manufacturers fail to comply with applicable regulatory requirements, we may be subject to the following administrative or judicial sanctions:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- issuance of warning letters or untitled letters;
- injunctions or the imposition of civil or criminal penalties or monetary fines;
- suspension of any ongoing clinical trials;
- refusal to approve pending applications or supplements to approved applications filed by us, or suspension or revocation of product license approvals;
- suspension of, or imposition of restrictions on, operations, including costly new manufacturing requirements; or
- product seizure or detention or refusal to permit the import or export of product.

The occurrence of any event or penalty described above may inhibit our ability to commercialize our drug candidates and generate revenue. Adverse regulatory action, whether pre- or post-approval, can also potentially lead to product liability claims and increase our product liability exposure.

We have entered into, and may in the future enter into, collaboration agreements for the licensing, development, and ultimate commercialization of some of our drug candidates. In such cases, we will depend greatly on our third-party collaborators to license, develop and commercialize such drug candidates, and they may not meet our expectations.

We may enter into co-development and commercialization partnerships for our drug candidates where appropriate. The process of identifying collaborators and negotiating collaboration agreements for the licensing, development, and ultimate commercialization of some of our drug candidates may cause delays and increased costs. We may not be able to enter into collaboration agreements on terms favorable to us or at all. Furthermore, some of those agreements may give substantial responsibility over our drug candidates to the collaborator. Some collaborators may be unable or unwilling to devote sufficient resources to develop our drug candidates as their agreements require. They often face business risks similar to ours, and this could interfere with their efforts. Also, collaborators may choose to devote their resources to products that compete with ours. If a collaborator does not successfully develop any one of our products, we will need to find another collaborator to do so. The success of our search for a new collaborator will depend on our legal right to do so at the time and whether the product remains commercially viable.

If we enter into collaboration agreements for one or more of our drug candidates, the success of such drug candidates will depend in great part upon our and our collaborators' success in promoting them as superior to other treatment alternatives. We believe that our drug candidates can be proven to offer disease treatment with notable advantages over drugs in terms of patient compliance and effectiveness. However, there can be no assurance that we will be able to prove these advantages or that the advantages will be sufficient to support the successful commercialization of our drug candidates.

We face competition from other biotechnology and pharmaceutical companies and our operating results will suffer if we fail to compete effectively.

The biotechnology and pharmaceutical industries are intensely competitive and subject to rapid and significant technological change. We have competitors in a number of jurisdictions, many of which have substantially greater name recognition, commercial infrastructures and financial, technical and personnel resources than we have. Established competitors may invest heavily to quickly discover and develop novel compounds that could make our drug candidates obsolete or uneconomical. Any new product that competes with an approved product may need to demonstrate compelling advantages in efficacy, cost, convenience, tolerability and safety to be commercially successful. Other competitive factors, including generic competition, could force us to lower prices or could result in reduced sales. In addition, new products developed by others could emerge as competitors to our drug candidates. If we are not able to compete effectively against our current and future competitors, our business will not grow, and our financial condition and operations will suffer.

Recently enacted and future legislation may increase the difficulty and cost for us to obtain marketing approval of and commercialize our drug candidates and affect the prices we may obtain.

In the United States and some foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval for our drug candidates, restrict or regulate post-approval activities and affect our ability to profitably sell our drug candidates. Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for pharmaceutical products. We do not know whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our drug candidates, if any, may be. In addition, increased scrutiny by the U.S. Congress of the FDA's approval process may significantly delay or prevent marketing approval, as well as subject us to more stringent product labeling and post-marketing testing and other requirements.

In the United States, under the Medicare Modernization Act, or MMA, Medicare Part D provides coverage to the elderly and disabled for outpatient prescription drugs by approving and subsidizing prescription drug plans offered by private insurers. The MMA also authorizes Medicare Part D prescription drug plans to use formularies where they can limit the number of drugs that will be covered in any therapeutic class. The Part D plans use their formulary leverage to negotiate rebates and other price concessions from drug manufacturers. Also under the MMA, Medicare Part B provides coverage to the elderly and disabled for physician-administered drugs on the basis of the drug's average sales price, a price that is calculated according to regulatory requirements and that the manufacturer reports to Medicare quarterly.

Both Congress and the Centers for Medicare & Medicaid Services (CMS), the agency that administers the Medicare program, from time to time consider legislation, regulations, or other initiatives to reduce drug costs under Medicare Parts B and D. For example, under the 2010 Affordable Care Act, drug manufacturers are required to provide a 50% discount on prescriptions for branded drugs filled while the beneficiary is in the Medicare Part D coverage gap, also known as the “donut hole.” There have been legislative proposals to repeal the “non-interference” provision of the MMA to allow CMS to leverage the Medicare market share to negotiate larger Part D rebates. Further cost reduction efforts could decrease the coverage and price that we receive for our drug candidates and could seriously harm our business. Private payors often follow Medicare coverage policy and payment limitations in setting their own reimbursement rates, and any reduction in reimbursement under the Medicare program may result in a similar reduction in payments from private payors.

The 2010 Affordable Care Act is intended to broaden access to health insurance and reduce or constrain the growth of healthcare spending. Further, the Affordable Care Act imposes a significant annual fee on companies that manufacture or import branded prescription drug products. It also increased the amount of the rebates drug manufacturers must pay to state Medicaid programs, required that Medicaid rebates be paid on managed Medicaid utilization, and increased the additional rebate on “line extensions” (such as extended-release formulations) of solid oral dosage forms of branded products. The law also contains substantial provisions affecting fraud and abuse compliance and transparency, which may require us to modify our business practices with healthcare practitioners and incur substantial costs to ensure compliance.

In addition, other legislative changes that affect the pharmaceutical industry have been proposed and adopted in the United States since the ACA was enacted. For example, the Inflation Reduction Act of 2022 included, among other things, a provision that authorizes CMS to negotiate a “maximum fair price” for a limited number of high-cost, single-source drugs every year, and another provision that requires drug companies to pay rebates to Medicare if prices rise faster than inflation. In addition, various states have adopted or are considering adopting laws that require pharmaceutical companies to provide notice prior to raising prices and to justify price increases. We expect that additional 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, and in turn could significantly reduce the projected value of certain development projects and reduce our profitability.

Our future growth depends, in part, on our ability to enter into and succeed in markets outside of the United States, where we may choose to rely on third party collaborations and will be subject to additional regulatory and commercial burdens, risks and other uncertainties.

Our future profitability will depend, in part, on our ability to gain approval of and commercialize our drug candidates in non-U.S. markets. In some or all of these non-U.S. markets, we intend to enter into licensing and contractual collaborations with third parties to handle some or all of the tasks and responsibilities necessary to succeed. Our activities in non-U.S. markets are subject to additional risks and uncertainties, including:

- our ability to enter into favorable licensing and contractual arrangements with our partners;
- our ability to select partners who are capable of achieving success at the tasks they agree to perform;
- obtaining timely and sufficient favorable approval terms for our drug candidates;
- obtaining favorable pricing and reimbursement;
- our inability to directly control commercial activities because we are relying on third parties;
- the burden of complying with complex and changing foreign regulatory, tax, accounting and legal requirements;
- different medical practices and customs in foreign countries affecting acceptance in the marketplace;
- import or export licensing requirements;
- longer accounts receivable collection times;
- longer lead times for shipping;
- language barriers for technical training;
- reduced protection of intellectual property rights in some foreign countries;
- foreign currency exchange rate fluctuations; and
- the interpretation of contractual provisions governed by foreign laws in the event of a contract dispute.

International sales of our drug candidates could also be adversely affected by the imposition of governmental controls, political and economic instability, and trade restrictions and changes in tariffs, any of which may adversely affect our results of operations.

If we market our drug candidates in a manner that violates healthcare fraud and abuse laws, or if we violate government price reporting laws, we may be subject to civil or criminal penalties.

The FDA enforces laws and regulations which require that the promotion of pharmaceutical products be consistent with the approved prescribing information. While physicians may prescribe an approved product for a so-called “off label” use, it is unlawful for a pharmaceutical company to promote its products in a manner that is inconsistent with its approved label and any company which engages in such conduct may be subject to significant liability. Similarly, industry codes in the European Union and other foreign jurisdictions prohibit companies from engaging in off-label promotion and regulatory agencies in various countries enforce violations of the code with civil penalties. While we intend to ensure that our promotional materials are consistent with our label, regulatory agencies may disagree with our assessment and may issue untitled letters, warning letters or may institute other civil or criminal enforcement proceedings. In addition to FDA restrictions on marketing of pharmaceutical products, several other types of state and federal healthcare fraud and abuse laws have been applied in recent years to restrict certain marketing practices in the pharmaceutical industry. These laws include the U.S. Anti-Kickback Statute, U.S. False Claims Act and similar state laws. Because of the breadth of these laws and the narrowness of the safe harbors, it is possible that some of our business activities could be subject to challenge under one or more of these laws.

The U.S. Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce, or in return for, purchasing, leasing, ordering or arranging for the purchase, lease or order of any healthcare item or service reimbursable under Medicare, Medicaid or other federally financed healthcare programs. This statute has been interpreted broadly to apply to arrangements between pharmaceutical manufacturers on the one hand and prescribers, purchasers and formulary managers on the other. Although there are several statutory exemptions and regulatory safe harbors protecting certain common activities from prosecution, the exemptions and safe harbors are drawn narrowly, and practices that involve remuneration intended to induce prescribing, purchasing or recommending may be subject to scrutiny if they do not qualify for an exemption or safe harbor. Our practices may not, in all cases, meet all of the criteria for safe harbor protection from anti-kickback liability. Moreover, recent health care reform legislation has strengthened these laws. For example, the Health Care Reform Law, among other things, amends the intent requirement of the U.S. Anti-Kickback Statute and criminal health care fraud statutes; a person or entity no longer needs to have actual knowledge of this statute or specific intent to violate it. In addition, the Health Care Reform Law provides that the government may assert that a claim including items or services resulting from a violation of the U.S. Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the U.S. False Claims Act. Federal false claims laws prohibit any person from knowingly presenting, or causing to be presented, a false claim for payment to the federal government or knowingly making, or causing to be made, a false statement to get a false claim paid.

Over the past few years, pharmaceutical and other healthcare companies have been prosecuted under these laws for a variety of alleged promotional and marketing activities, such as: allegedly providing free trips, free goods, sham consulting fees and grants and other monetary benefits to prescribers; reporting to pricing services inflated average wholesale prices that were then used by federal programs to set reimbursement rates; engaging in off-label promotion that caused claims to be submitted to Medicare or Medicaid for non-covered, off-label uses; and submitting inflated best price information to the Medicaid Rebate Program to reduce liability for Medicaid rebates. Most states also have statutes or regulations similar to the U.S. Anti-Kickback Statute and the U.S. False Claims Act, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payor. Sanctions under these federal and state laws may include substantial civil monetary penalties, exclusion of a manufacturer’s products from reimbursement under government programs, substantial criminal fines and imprisonment.

We are, and will be, completely dependent on third parties to manufacture our drug candidates, and our commercialization of our drug candidates could be halted, delayed or made less profitable if those third parties fail to obtain manufacturing approval from the FDA or comparable foreign regulatory authorities, fail to provide us with sufficient quantities of our drug candidates or fail to do so at acceptable quality levels or prices.

We do not currently have, nor do we plan to acquire, the capability or infrastructure to manufacture the active pharmaceutical ingredients of our drug candidates, or the finished drug products, for use in our clinical trials or for commercial product, if any. As a result, we will be obligated to rely on contract manufacturers if and when our drug candidates are approved for commercialization.

We currently rely on a single contract supplier for manufacturing monoclonal antibodies. We have limited experience contracting third parties to manufacture monoclonal antibodies and do not control the manufacturing processes of, and are completely dependent on, our two contract manufacturing partners for compliance with cGMPs for manufacture of all active drug substances and finished drug products. These cGMP regulations cover all aspects of the manufacturing, testing, quality control and record keeping relating to our drug candidates. If our contract manufacturers cannot successfully manufacture material that conforms to our specifications and the strict regulatory requirements of the FDA or others, they will not be able to secure and/or maintain regulatory approval for their manufacturing facilities. If the FDA or a comparable foreign regulatory authority does not approve these facilities for the manufacture of our product candidates or if it withdraws any such approval in the future, we may need to find alternative manufacturing facilities, which would significantly impact our ability to develop, obtain regulatory approval for or market our drug candidates, if approved.

Our contract manufacturers will be subject to ongoing periodic unannounced inspections by the FDA and corresponding state and foreign agencies for compliance with cGMPs and similar regulatory requirements. We will not have control over our contract manufacturers' compliance with these regulations and standards. Failure by any of our contract manufacturers to comply with applicable regulations could result in sanctions being imposed on us, including fines, injunctions, civil penalties, failure to grant approval to market our drug candidates, delays, suspensions or withdrawals of approvals, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect our business. In addition, we will not have control over the ability of our contract manufacturers to maintain adequate quality control, quality assurance and qualified personnel. Failure by our contract manufacturers to comply with or maintain any of these standards could adversely affect our ability to develop, obtain regulatory approval for or market our drug candidates.

If, for any reason, these third parties are unable or unwilling to perform, we may not be able to terminate our agreements with them, and we may not be able to locate alternative manufacturers or formulators or enter into favorable agreements with them and we cannot be certain that any such third parties will have the manufacturing capacity to meet future requirements. If these manufacturers or any alternate manufacturer of finished drug product experiences any significant difficulties in its respective manufacturing processes for our active pharmaceutical ingredient, or API, or our finished products or should cease doing business with us, we could experience significant interruptions in the supply of our drug candidates or may not be able to create a supply of our drug candidates at all. Were we to encounter manufacturing issues, our ability to produce a sufficient supply of our drug candidates might be negatively affected. Our inability to coordinate the efforts of our third-party manufacturing partners, or the lack of capacity available at our third-party manufacturing partners, could impair our ability to supply our drug candidates at required levels. Because of the significant regulatory requirements that we would need to satisfy in order to qualify a new bulk or finished product manufacturer, if we face these or other difficulties with our current manufacturing partners, we could experience significant interruptions in the supply of our drug candidates if we decided to transfer the manufacture of our drug candidates to one or more alternative manufacturers in an effort to deal with the difficulties.

Any manufacturing problem or the loss of a contract manufacturer could be disruptive to our operations and result in lost sales. Additionally, we rely on third parties to supply the raw materials needed to manufacture our potential products. Any reliance on suppliers may involve several risks, including a potential inability to obtain critical materials and reduced control over production costs, delivery schedules, reliability, and quality. Any unanticipated disruption to a future contract manufacturer caused by problems at suppliers could delay shipment of our drug candidates, increase our cost of goods sold and result in lost sales.

We cannot guarantee that our manufacturing and supply partners will be able to manufacture our drug candidates at commercial scale on a cost-effective basis. If the commercial-scale manufacturing costs of our drug candidates are higher than expected, these costs may significantly impact our operating results. In order to reduce costs, we may need to develop and implement process improvements. However, in order to do so, we will need, from time to time, to notify or make submissions with regulatory authorities, and the improvements may be subject to approval by such regulatory authorities. We cannot be sure that we will receive these necessary approvals or that these approvals will be granted in a timely fashion. We also cannot guarantee that we will be able to enhance and optimize output in our commercial manufacturing process. If we cannot enhance and optimize output, we may not be able to reduce our costs over time.

There are risks associated with scaling up manufacturing to commercial scale. If our contract manufacturers are unable to manufacture our drug candidates on a commercial scale, this could potentially delay regulatory approval and commercialization or materially adversely affect our results of operations.

There are risks associated with scaling up manufacturing to commercial volumes including, among others, cost overruns, technical problems with process scale-up, process reproducibility, stability issues, and lot consistency. We have limited experience contracting with third parties to manufacture monoclonal antibodies and will need to be able to successfully scale up and produce a batch of CRB-601 to commence clinical studies. We are dependent on our licensing partner, CSPC, to manufacture antibody drug conjugates and we do not have control over their chemistry, manufacturing, and control strategy for CRB-701 to ensure successful development and supply of drug to commence clinical studies. Even if we obtain regulatory approval for our drug candidates, there is no assurance that our contract manufacturers or licensing partners will be able to manufacture the approved products to specifications acceptable to the FDA or other regulatory authorities, to produce them in sufficient quantities to meet the requirements for the potential launch of the product or to meet potential future demand. If our manufacturers are unable to produce sufficient quantities of approved products for commercialization, either on a timely basis or at all, our commercialization efforts would be impaired, which would have a material adverse effect on our business, financial condition, results of operations and growth prospects.

We expect that we will rely on third parties to assist us in conducting clinical trials for our drug candidates. If these third parties do not successfully carry out their contractual duties or meet expected deadlines, we may not be able to obtain regulatory approval for or commercialize our drug candidates and our business would be substantially harmed.

We expect to enter into agreements with third-party CROs to assist us in conducting and managing our clinical programs, including contracting with clinical sites to perform our clinical studies. We plan to rely on these parties for execution of clinical studies for our drug candidates and we will control only certain aspects of conducting the clinical studies. Nevertheless, we will be responsible for ensuring that each of our studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on CROs and clinical sites will not relieve us of our regulatory responsibilities. We and our CROs will be required to comply with cGCPs, which are regulations and guidelines enforced by the FDA, the Competent Authorities of the Member States of the European Economic Area and comparable foreign regulatory authorities for any products in clinical development. The FDA enforces these cGCP regulations through periodic inspections of trial sponsors, principal investigators and trial sites. If we or our CROs fail to comply with applicable cGCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that, upon inspection, the FDA will determine that any of our clinical trials comply with cGCPs. In addition, our clinical trials must be conducted with products produced under cGMP regulations and will require a large number of test subjects. Our failure or the failure of our CROs or clinical sites to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process and could also subject us to enforcement action up to and including civil and criminal penalties.

Although we intend to design the clinical trials for our drug candidates in consultation with CROs, we expect that the CROs will manage and assist us with the clinical trials conducted at contracted clinical sites. As a result, many important aspects of our drug development programs would be outside of our direct control. In addition, the CROs and clinical sites may not perform all of their obligations under arrangements with us or in compliance with regulatory requirements. If the CROs or clinical sites do not perform clinical trials in a satisfactory manner, or if they breach their obligations to us or fail to comply with regulatory requirements, the development and commercialization of our drug candidates for the subject indications may be delayed or our development program materially and irreversibly harmed. We cannot control the amount and timing of resources these CROs and clinical sites will devote to our program or our drug candidates. If we are unable to rely on clinical data collected by our CROs, we could be required to repeat, extend the duration of, or increase the size of our clinical trials, which could significantly delay commercialization and require significantly greater expenditures.

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

Any termination or suspension of or delays in the commencement or completion of any necessary studies of our drug candidates for any indications could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.

The commencement and completion of clinical studies can be delayed for a number of reasons, including delays related to:

- the FDA failing to grant permission to proceed and placing the clinical study on hold;
- subjects failing to enroll or remain in our trials at the rate we expect;
- a facility manufacturing any of our drug candidates being ordered by the FDA or other government or regulatory authorities to temporarily or permanently shut down due to violations of cGMP requirements or other applicable requirements, or cross-contaminations of product in the manufacturing process;
- any changes to our manufacturing process that may be necessary or desired;
- subjects choosing an alternative treatment for the indications for which we are developing our drug candidates, or participating in competing clinical studies;
- subjects experiencing severe or unexpected drug-related adverse effects;
- reports of similar technologies and products raising safety and/or efficacy concerns;
- third-party clinical investigators losing their license or permits necessary to perform our clinical trials, not performing our clinical trials on our anticipated schedule or employing methods consistent with the clinical trial protocol, cGCP requirements, or other third parties not performing data collection and analysis in a timely or accurate manner;
- inspections of clinical study sites by the FDA or IRBs finding regulatory violations that require us to undertake corrective action, result in suspension or termination of one or more sites or the imposition of a clinical hold on the entire study, or that prohibit us from using some or all of the data in support of our marketing applications;
- third-party contractors becoming debarred or suspended or otherwise penalized by the FDA or other government or regulatory authorities for violations of regulatory requirements, in which case we may need to find a substitute contractor, and we may not be able to use some or any of the data produced by such contractors in support of our marketing applications;
- one or more IRBs refusing to approve, suspending or terminating the study at an investigational site precluding enrollment of additional subjects, or withdrawing its approval of the trial; reaching agreement on acceptable terms with prospective CROs and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- deviations of the clinical sites from trial protocols or dropping out of a trial;
- adding new clinical trial sites;
- the inability of the CRO to execute any clinical trials for any reason;
- government or regulatory delays or “clinical holds” requiring suspension or termination of a trial; and
- delays related to the impacts of COVID-19, including slowdowns in enrollment or our ability complete our clinical trials on our expected timeline.

Product development costs for our drug candidates will increase if we have delays in testing or approval or if we need to perform more or larger clinical studies than planned. Additionally, changes in regulatory requirements and policies may occur and we may need to amend study protocols to reflect these changes. Amendments may require us to resubmit our study protocols to the FDA and IRBs for reexamination, which may impact the costs, timing or successful completion of that study. If we experience delays in completion of, or if we, the FDA or other regulatory authorities, any IRBs, or other reviewing entities, or any of our clinical study sites suspend or terminate any of our clinical studies of our drug candidates, our commercial prospects may be materially harmed and our ability to generate product revenues will be delayed. Any delays in completing our clinical trials will increase our costs, slow down our development and approval process and jeopardize our ability to commence product sales and generate revenues. Any of these occurrences may harm our business, financial condition and prospects significantly. In addition, many of the factors that cause, or lead to, termination or suspension of, or a delay in the commencement or completion of, clinical studies may also ultimately lead to the denial of regulatory approval of our drug candidates. In addition, if one or more clinical studies are delayed, our competitors may be able to bring products to market before we do, and the commercial viability of our drug candidates could be significantly reduced.

We may not be able to obtain or maintain orphan drug designation or exclusivity for our product candidates.

We may seek orphan drug designation in the United States and in the European Union for our product candidates. Upon receipt of regulatory approval, orphan drug status will provide us with seven years of market exclusivity in the United States under the Orphan Drug Act. However, there is no guarantee that the FDA will grant orphan drug designation for any of our drug candidates for any future indication, which would make us ineligible for the additional exclusivity and other benefits of orphan drug designation. Moreover, there can be no assurance that another company also holding orphan drug designation for the same indication, or which may receive orphan drug designation in the future will not receive approval prior to us, in which case our competitor would have the benefit of the seven years of market exclusivity, and we would be unable to commercialize our product for the same indication until the expiration of such seven-year period. Even if we are the first to obtain approval for the orphan drug indication, there are circumstances under which a competing product may be approved for the same indication during our seven-year period of exclusivity.

Under the Orphan Drug Act, the FDA may grant orphan drug designation 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 United States and for which there is no reasonable expectation that the cost of developing and making a drug available in the United States for this type of disease or condition will be recovered from sales of the product. Orphan drug designation must be requested before submitting an NDA or BLA. After the FDA grants orphan drug designation, the identity of the therapeutic agent and its potential orphan use are disclosed publicly by the FDA. Orphan designation does not convey any advantage in or shorten the duration of regulatory review and approval process. In addition to the potential period of exclusivity, orphan designation makes a company eligible for grant funding of up to \$400,000 per year for four years to defray costs of clinical trial expenses, tax credits for clinical research expenses and potential exemption from the FDA application user fee.

If a product that has orphan designation subsequently receives the first FDA approval for the disease or condition for which it has such designation, the product is entitled to orphan drug exclusivity, which means 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 (i) the drug's orphan designation is revoked; (ii) its marketing approval is withdrawn; (iii) the orphan exclusivity holder consents to the approval of another applicant's product; (iv) the orphan exclusivity holder is unable to assure the availability of a sufficient quantity of drug; or (v) a showing of clinical superiority to the product with orphan exclusivity by a competitor product. 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 drug exclusivity. There can be no assurance that we will receive orphan drug designation for any of our drug candidates for any additional indications if we elect to seek such designation. Even if orphan designation is granted it may be withdrawn by the FDA for non-compliance with regulations.

Third-party coverage and reimbursement and health care cost containment initiatives and treatment guidelines may constrain our future revenues.

Our ability to successfully market our drug candidates will depend in part on the level of reimbursement that government health administration authorities, private health coverage insurers and other organizations provide for the cost of our products and related treatments. Countries in which our drug candidates are expected to be sold through reimbursement schemes under national health insurance programs frequently require that manufacturers and sellers of pharmaceutical products obtain governmental approval of initial prices and any subsequent price increases. In certain countries, including the United States, government-funded and private medical care plans can exert significant indirect pressure on prices. We may not be able to sell our drug candidates profitably if adequate prices are not approved or coverage and reimbursement is unavailable or limited in scope. Increasingly, third-party payors attempt to contain health care costs in ways that are likely to impact our development of products including:

- failing to approve or challenging the prices charged for health-care products;
- introducing reimportation schemes from lower priced jurisdictions;
- limiting both coverage and the amount of reimbursement for new therapeutic products;
- denying or limiting coverage for products that are approved by the regulatory agencies but are considered to be experimental or investigational by third-party payors; and
- refusing to provide coverage when an approved product is used in a way that has not received regulatory marketing approval.

Our collaboration partners are conducting and may intend to conduct additional clinical trials for certain of our drug candidates at sites outside the United States, and the FDA may not accept data from trials conducted in such locations or may require additional U.S.-based trials.

Our collaboration partners are currently conducting and may intend in the future to conduct clinical trials outside the United States, particularly in China where CSPC is conducting a Phase 1 trial. Although the FDA may accept data from clinical trials conducted outside the United States, acceptance of these data is subject to certain conditions imposed by the FDA. For example, the clinical trial must be well designed and conducted by qualified investigators in accordance with current good clinical practices, or GCPs, including review and approval by an independent ethics committee and receipt of informed consent from trial patients. The trial population must also adequately represent the U.S. population, and the data must be applicable to the U.S. population and U.S. medical practice in ways that the FDA deems clinically meaningful. Generally, the patient population for any clinical trial conducted outside of the United States must be representative of the population for which we intend to seek approval in the United States. In addition, while these clinical trials are subject to applicable local laws, FDA acceptance of the data will be dependent upon its determination that the trials also comply with all applicable U.S. laws and regulations. There can be no assurance that the FDA will accept data from trials conducted outside of the United States. If the FDA does not accept the data from our clinical trials conducted outside the United States, it would likely result in the need for additional clinical trials, which would be costly and time-consuming and delay or permanently halt our ability to develop and market these or other drug candidates in the United States. In addition, there are risks inherent in conducting clinical trials in jurisdictions outside the United States including:

- regulatory and administrative requirements of the jurisdiction where the trial is conducted that could burden or limit our ability to conduct clinical trials;
- foreign exchange fluctuations;
- manufacturing, customs, shipment and storage requirements;
- cultural differences in medical practice and clinical research; and
- the risk that patient populations in such trials are not considered representative as compared to patient populations in the United States and other markets.

Risks Relating to Our Intellectual Property Rights

It is difficult and costly to protect our intellectual property rights, and we cannot ensure the protection of these rights.

Our success will depend, in part, on maintaining and obtaining additional patent protection for our technologies, products and processes, successfully defending these patents against third-party challenges, and successfully enforcing these patents against third party competitors. The patent positions of pharmaceutical companies can be highly uncertain and involve complex legal, scientific and factual questions for which important legal principles remain unresolved. Changes in either the patent laws or in interpretations of patent laws may diminish the value of our intellectual property. Accordingly, we cannot predict the breadth of claims that may be allowable in our pending applications or, the enforceability of our existing and future patents. Our pending patent applications may never be approved by United States or foreign patent offices and the existing patents and patent applications relating to our product candidates may be challenged, invalidated, or circumvented by third parties and may not protect us against competitors with similar products or technologies.

The degree of our current and future protection for our proprietary rights is uncertain, because legal means afford only limited protection and may not adequately protect our rights, permit us to gain or keep our competitive advantage, or provide us with any competitive advantage at all. For example, others have filed, and in the future are likely to file, patent applications covering products and technologies that are similar, identical, or competitive to our product candidates, or important to our business. We cannot be certain that any patents or patent application owned by a third party will not have priority over patents and patent applications filed by us, or that we will not be involved in interference, opposition or invalidity proceedings before United States or foreign patent offices.

We also rely on trade secrets to protect technology, especially in cases when we believe patent protection is not appropriate or obtainable. However, trade secrets are difficult to protect. While we require employees, academic collaborators, consultants, and other contractors to enter into confidentiality agreements, we may not be able to adequately protect our trade secrets or other proprietary or licensed information. Typically, research collaborators and scientific advisors have rights to publish data and information in which we may have rights. If we cannot maintain the confidentiality of our proprietary technology and other confidential information, our ability to receive patent protection and our ability to protect valuable information owned by us may be imperiled. Enforcing a claim that a third-party entity illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts are sometimes less willing to protect trade secrets than patents. Moreover, our competitors may independently develop equivalent knowledge, methods, and know-how.

If we fail to maintain or obtain additional patent protection or trade secret protection for our product candidates or our technologies, third parties could use our proprietary information, which could impair our ability to compete in the market and adversely affect our ability to generate revenues and attain profitability.

We may also rely on the trademarks we may develop to distinguish our products from the products of our competitors. We cannot guarantee that any trademark applications filed by us, or our business partners will be approved. Third parties may also oppose such trademark applications, or otherwise challenge our use of the trademarks. In the event that the trademarks we use are successfully challenged, we could be forced to rebrand our products, which could result in loss of brand recognition, and could require us to devote resources to advertising and marketing new brands. Further, we cannot provide assurance that competitors will not infringe the trademarks we use, or that we will have adequate resources to enforce these trademarks.

We have in-licensed a portion of our intellectual property, and if we fail to comply with our obligations under these arrangements, we could lose such intellectual property rights or owe damages to the licensor of such intellectual property.

We are a party to license agreements with Jenrin, The Regents, and Milky Way BioPharma, LLC (“Milky Way”) pursuant to which we licensed exclusive worldwide rights to develop, manufacture and market drug candidates. These agreements are important to our business, and we may enter into additional license agreements in the future. Certain of our in-licensed intellectual property covers, or may cover, potential cannabinoid and monoclonal antibody developmental candidates. Our existing license agreements impose, and we expect that future license agreements will impose, various diligence, milestone payment, royalty and other obligations on us. If there is any conflict, dispute, disagreement or issue of non-performance between us and our licensing partners regarding our rights or obligations under the license agreements, including any such conflict, dispute or disagreement arising from our failure to satisfy payment obligations under any such agreement, we may owe damages, our licensor may have a right to terminate the affected license, and our ability to utilize the affected intellectual property in our product discovery and development efforts and our ability to enter into collaboration or marketing agreements for an affected product candidate may be adversely affected.

We are a party to a license agreement with CSPC pursuant to which we licensed the exclusive rights in the United States, Canada, the European Union (including the European Free Trade Area), the United Kingdom, and Australia to develop and market a drug candidate from CSPC. This agreement is important to our business, and we may enter into additional license agreements in the future. Certain of our in-licensed intellectual property covers, or may cover, potential antibodies, monoclonal antibody, and antibody drug conjugate developmental candidates. Our existing license agreement imposes, and we expect that future license agreements will impose, various diligence, milestone payment, royalty, and other obligations on us. If there is any conflict, dispute, disagreement or issue of non-performance between us and our licensing partners regarding our rights or obligations under the license agreements, including any such conflict, dispute or disagreement arising from our failure to satisfy payment obligations under any such agreement, we may owe damages, our licensor may have a right to terminate the affected license, and our ability to utilize the affected intellectual property in our product discovery and development efforts and our ability to enter into collaboration or marketing agreements for an affected product candidate may be adversely affected.

Our product candidates may infringe the intellectual property rights of others, which could increase our costs and delay or prevent our development and commercialization efforts.

Our success depends in part on avoiding infringement of the proprietary technologies of others. The pharmaceutical industry has been characterized by frequent litigation regarding patent and other intellectual property rights. Identification of third-party patent rights that may be relevant to our proprietary technology is difficult because patent searching is imperfect due to differences in terminology among patents, incomplete databases, and the difficulty in assessing the meaning of patent claims. Additionally, because patent applications are maintained in secrecy until the application is published, we may be unaware of third-party patents that may be infringed by any of our product candidates. There may be certain issued patents and patent applications claiming subject matter that we may be required to license in order to research, develop or commercialize our product candidates, and we do not know if such patents and patent applications would be available to license on commercially reasonable terms, or at all. Any claims of patent infringement asserted by third parties would be time-consuming and may:

- result in costly litigation;
- divert the time and attention of our technical personnel and management;
- prevent us from commercializing a product until the asserted patent expires or is held finally invalid or not infringed in a court of law;
- require us to cease or modify our use of the technology and/or develop non-infringing technology; or
- require us to enter into royalty or licensing agreements.

Although no third party has asserted a claim of infringement against us, others may hold proprietary rights that could prevent our product candidates from being marketed. Any patent-related legal action against us claiming damages and seeking to enjoin commercial activities relating to our product candidates or our processes could subject us to potential liability for damages and require us to obtain a license to continue to manufacture or market our product candidates. We cannot predict whether we would prevail in any such actions or that any license required under any of these patents would be made available on commercially acceptable terms, if at all. In addition, we cannot be sure that we could redesign any product candidates or processes to avoid infringement, if necessary. Accordingly, an adverse determination in a judicial or administrative proceeding, or the failure to obtain necessary licenses, could prevent us from developing and commercializing our product candidates, which could harm our business, financial condition, and operating results.

A number of companies, including several major pharmaceutical companies, have conducted research on anti-inflammatory, cancer, and anti-fibrosis therapies which resulted in the filing of many patent applications related to this research. If we were to challenge the validity of these or any issued United States patent in court, we would need to overcome a statutory presumption of validity that attaches to every issued United States patent. This means that, in order to prevail, we would have to present clear and convincing evidence as to the invalidity of the patent's claims.

If we were to challenge the validity of these or any issued United States patent in an administrative trial before the Patent Trial and Appeal Board in the United States Patent and Trademark Office, we would have to prove that the claims are unpatentable by a preponderance of the evidence. There is no assurance that a jury and/or court would find in our favor on questions of infringement, validity, or enforceability.

We may be subject to claims that we have wrongfully hired an employee from a competitor or that we or our employees have wrongfully used or disclosed alleged confidential information or trade secrets of their former employers.

As is commonplace in our industry, we employ individuals who were previously employed at other pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject in the future to claims that our employees or prospective employees are subject to a continuing obligation to their former employers (such as non-competition or non-solicitation obligations) or claims that we or our employees have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

We are, and may become, subject to claims that we or our employees have wrongfully used or disclosed alleged confidential information or trade secrets that, regardless of merit, could result in significant expense and loss of our intellectual property rights.

We have entered into and may in the future enter into non-disclosure and confidentiality agreements to protect the proprietary positions of third parties, such as outside scientific collaborators, CROs, third-party manufacturers, consultants, advisors, potential partners and other third parties. We may become subject to litigation where a third-party asserts that we or our employees inadvertently or otherwise breached the agreements and used or disclosed trade secrets or other information proprietary to the third parties. Defense of such matters, regardless of their merit, could involve substantial litigation expense and be a substantial diversion of employee resources from our business. We cannot predict whether we would prevail in any such actions. Moreover, intellectual property litigation, regardless of its outcome, may cause negative publicity and could prohibit us from developing, marketing or otherwise commercializing our product candidates. Failure to defend against any such claim could subject us to significant liability for monetary damages or prevent or delay our developmental and commercialization efforts, which could adversely affect our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to our management team and other employees.

Parties making claims against us may be able to sustain the costs of complex intellectual property litigation more effectively than we can because they have substantially greater resources. 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. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise additional funds or otherwise have a material adverse effect on our business, operating results, financial condition and prospects.

On November 18, 2021, Venn Therapeutics, LLC (“Venn”), filed a complaint (the “Complaint”) against us in the U.S. District Court for the Middle District of Florida. The Complaint asserted claims for trade secret misappropriation under federal law and state law, a claim for breach of contract, and state law claims for unfair competition, misrepresentation, unjust enrichment, and intentional interference with advantageous business relations. On May 12, 2022, we entered into a binding term sheet (the “Settlement”) with Venn to resolve the claims by Venn against us, our Chief Executive Officer, and a former employee. Under the terms of the Settlement, we made a \$5 million payment to Venn on May 26, 2022, and Venn dismissed with prejudice all claims against us, our Chief Executive Officer and a former employee.

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

Although we are not aware of any asserted third-party claims challenging inventorship on our patents or ownership of our intellectual property, we may in the future be subject to claims that former employees, strategic partners, commercial counterparties or other third parties associated with us or one of our predecessors in ownership have an interest in our patents or other intellectual property as an inventor or co-inventor. While it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we cannot fully control the enforcement of these policies by third parties with which we contract, nor can we be certain that assignment agreements between us and our employees, between us and our counterparties, or between our counterparties and their employees or between our predecessors of ownership and their employees and counterparties, will effectively protect our interests as to any party who conceives or develops intellectual property that we regard as our own. Among other issues, the assignment of intellectual property rights may not be self-executing, the assignment agreements may be breached, or we may have disputes arise from conflicting obligations of consultants or others who are involved in developing our product candidates. As we approach potential commercialization of our product candidates, we are more closely analyzing all facts that we believe might be used to assert an inventorship claim against us. Determinations like these involve complex sets of fact and applications of sometimes-unsettled patent law, resulting in inherent uncertainties regarding ownership rights. Determining the history of development of certain of our intellectual property is made more difficult by the fact that certain of our intellectual property was developed by other companies for other indications before being acquired by us. Consequently, we cannot be sure that we have all of the documentary records relevant to such an analysis. In the course of our analysis, we identified a potential issue regarding incomplete inventorship on certain aspects of our lenabasum portfolio that were developed prior to our acquisition of lenabasum. Since identifying this potential issue, we reached agreement with the relevant third-party co-inventors and received assignments of such co-inventors' rights in and to the relevant patents.

If claims challenging inventorship are made against us, we may need to resort to litigation to resolve those claims. If we fail in defending against any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of valuable intellectual property rights or the right to assert those rights against third-parties marketing competing products. 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.

General Company-Related Risks

We will need to grow the size of our organization, and we may experience difficulties in managing this growth.

As of December 31, 2022, we had 33 full-time employees. As our development and commercialization plans and strategies develop, we will need to expand the size of our employee base for managerial, operational, sales, marketing, financial and other resources. Future growth would impose significant added responsibilities on members of management, including the need to identify, recruit, maintain, motivate, and integrate additional employees. In addition, our management may have to divert a disproportionate amount of its attention away from our day-to-day activities and devote a substantial amount of time to managing these growth activities. Our future financial performance and our ability to commercialize our drug candidates and our ability to compete effectively will depend, in part, on our ability to effectively manage our future growth.

Future capital raises may dilute our existing stockholders' ownership and/or have other adverse effects on our operations.

If we raise additional capital by issuing equity securities, our existing stockholders' percentage ownership will be reduced, and these stockholders may experience substantial dilution. We may also issue equity securities that provide for rights, preferences, and privileges senior to those of our common stock. If we raise additional funds by issuing debt securities, these debt securities would have rights senior to those of our common stock and the terms of the debt securities issued could impose significant restrictions on our operations, including liens on our assets. If we raise additional funds through collaborations and licensing arrangements, we may be required to relinquish some rights to our technologies or candidate products, or to grant licenses on terms that are not favorable to us.

If we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy. In addition, the loss of the services of certain key employees, including Yuval Cohen, our Chief Executive Officer, Rachael Brake, our Chief Scientific Officer, and Sean Moran, our Chief Financial Officer would adversely impact our business prospects.

Our ability to compete in the highly competitive pharmaceuticals industry depends in large part upon our ability to attract highly qualified managerial, scientific, and medical personnel. In order to induce valuable employees to remain with us, we intend to provide employees with stock options that vest over time. The value to employees of stock options that vest over time will be significantly affected by movements in the price of our common stock that we will not be able to control and may at any time be insufficient to counteract more lucrative offers from other companies.

Our management team has expertise in many different aspects of drug development and commercialization. However, we will need to hire additional personnel as we further develop our drug candidates. Competition for skilled personnel in our market is intense and competition for experienced scientists may limit our ability to hire and retain highly qualified personnel on acceptable terms. Despite our efforts to retain valuable employees, members of our management, scientific and medical teams may terminate their employment with us on short notice. We have entered into employment agreements with certain of our executive officers. However, these employment arrangements provide for at-will employment, which means that any of our employees could leave our employment at any time, with or without notice. The loss of the services of any of our executive officers or other key employees could potentially harm our business, operating results, or financial condition. In particular, we believe that the loss of the services of Yuval Cohen, Ph.D., our Chief Executive Officer, Rachael Brake, Ph.D., our Chief Scientific Officer, and Sean Moran, C.P.A., M.B.A., our Chief Financial Officer, would have a material adverse effect on our business. Our success also depends on our ability to continue to attract, retain and motivate highly skilled junior, mid-level, and senior managers as well as junior, mid-level, and senior scientific and medical personnel.

Other pharmaceutical companies with which we compete for qualified personnel have greater financial and other resources, different risk profiles, and a longer history in the industry than we do. They also may provide more diverse opportunities and better chances for career advancement. Some of these characteristics may be more appealing to high-quality candidates than what we have to offer. If we are unable to continue to attract and retain high-quality personnel, the rate and success at which we can develop and commercialize product candidates would be limited.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our drug candidates.

We face a potential risk of product liability as a result of the clinical testing of our drug candidates and will face an even greater risk if we commercialize our drug candidates. For example, we may be sued if any product we develop or any materials that we use in our products allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing, or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability, and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our drug candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our drug candidates;
- injury to our reputation;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- the inability to commercialize our drug candidates; and
- a decline in the value of our stock.

Our inability to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop. We intend to obtain product liability insurance covering our clinical trials. Although we will maintain such insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

We may acquire businesses, assets, or products, or form strategic alliances, in the future, and we may not realize the benefits of such acquisitions.

We may acquire additional businesses, assets, or products, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing business. If we acquire businesses with promising markets or technologies, we may not be able to realize the benefit of acquiring such businesses if we are unable to successfully integrate them with our existing operations and company culture. We may encounter numerous difficulties in developing, manufacturing, and marketing any new delay or prevent us from realizing their expected benefits or enhancing our business. We cannot assure you that, following any such acquisition, we will achieve the expected synergies to justify the transaction.

Significant disruptions of information technology systems or breaches of data security could materially adversely affect our business, results of operations and financial condition.

We collect and maintain information in digital form that is necessary to conduct our business, and we are increasingly dependent on information technology systems and infrastructure to operate our business. In the ordinary course of our business, we collect, store, and transmit large amounts of confidential information, including intellectual property, proprietary business information and personal information. It is critical that we do so in a secure manner to maintain the confidentiality and integrity of such confidential information. We have established physical, electronic, and organizational measures to safeguard and secure our systems to prevent a data compromise, and rely on commercially available systems, software, tools, and monitoring to provide security for our information technology systems and the processing, transmission and storage of digital information. We have also outsourced elements of our information technology infrastructure, and as a result a number of third-party vendors may or could have access to our confidential information. Our internal information technology systems and infrastructure, and those of our current and any future collaborators, contractors, and consultants and other third parties on which we rely, are vulnerable to damage from computer viruses, malware, natural disasters, terrorism, war, telecommunication and electrical failures, cyber-attacks or cyber-intrusions over the Internet, attachments to emails, persons inside our organization, or persons with access to systems inside our organization.

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. In addition, the prevalent use of mobile devices that access confidential information increases the risk of data security breaches, which could lead to the loss of confidential information or other intellectual property. The costs to us to mitigate network security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant, and while we have implemented security measures to protect our data security and information technology systems, our efforts to address these problems may not be successful, and these problems could result in unexpected interruptions, delays, cessation of service and other harm to our business and our competitive position. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our product development programs. For example, the loss of clinical trial data from completed or ongoing or planned clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. Moreover, if a computer security breach affects our systems or results in the unauthorized release of personally identifiable information, our reputation could be materially damaged.

In addition, such a breach may require notification to governmental agencies, the media, or individuals pursuant to various federal and state privacy and security laws, if applicable, including the Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Clinical Health Act of 2009, and its implementing rules and regulations, as well as regulations promulgated by the Federal Trade Commission and state breach notification laws.

Under the EU regulation and notably the General Data Protection Regulation, or GDPR, No. 2016/679, which entered into force on May 25, 2018 and is applicable personal data that we process in relation to our presence in the EU, the offering of products or services to individuals in the EU or the monitoring of the behavior of individuals in the EU, we have also a legal responsibility to report personal data breaches to the competent supervisory authority. The EU data protection regulation includes a broad definition and a short deadline for the notification of personal data breaches, which may be difficult to implement in practice and requires that we implement robust internal processes. Under this regulation, we have to report personal data breaches to the competent supervisory authority within 72 hours of the time we become aware of a breach "unless the personal data breach is unlikely to result in a risk to the right and freedoms of natural persons" (Article 33 of the GDPR). In addition, the GDPR requires that we communicate the breach to the Data Subject if the breach is "likely to result in a high risk to the rights and freedoms of natural persons" (Article 34 of the GDPR). In order to fulfill these requirements, we have to implement specific internal processes to be followed in case of a personal data breach, which will allow us to (a) contain and recover the breach, (b) assess the risk to the data subjects, (c) notify, and possibly communicate the breach to the data subjects, (d) investigate and respond to the breach. The performance of these processes implies substantial costs in resources and time.

Moreover, as we may rely on third parties that will also process as processor the data for which we are a data controller—for example, in the context of the manufacturing of our drug candidates or for the conduct of clinical trials, we must contractually ensure that strict security measures, as well as appropriate obligations including an obligation to report in due delay any security incident are implemented, in order to allow us fulfilling our own regulatory requirements.

We would also be exposed to a risk of loss or litigation and potential liability for any security breach on personal data for which we are data controller. The costs of above-mentioned processes together with legal penalties, possible compensation for damages and any resulting lawsuits arising from a breach may be extensive and may have a negative impact on reputation and materially adversely affect our business, results of operations and financial condition.

Changes in geopolitical conditions, U.S.-China trade relations and other factors beyond our control may adversely impact our business and operating results.

Our operations and performance depend in part on global and regional economic and geopolitical conditions, given our current third-party license agreement with CSPC, which is headquartered in China. Changes in U.S.-China trade policies, and a number of other economic and geopolitical factors both in China and abroad could have a material adverse effect on our business, financial condition, results of operations or prospects. Such factors may include:

- instability in political or economic conditions, such as inflation, recession, foreign currency exchange restrictions and devaluations, restrictive governmental controls on the movement and repatriation of earnings and capital, and actual or anticipated military or political conflicts, particularly in emerging markets;
- expanded jurisdiction of the Committee for Foreign Investment in the United States (CFIUS); and
- intergovernmental conflicts or actions, such as armed conflict, trade wars, retaliatory tariffs, and acts of terrorism or war.

As a result of these events, our ability to obtain data or regulatory support from our China-based licensing partner may be limited or adversely affected, and we may ourselves be subject to sanctions, diminished public perception and operational constraints.

Disruptions in the global economy and supply chains may have a material adverse effect on our business, financial condition and results of operations.

The disruptions to the global economy in 2020 and into 2021 have impeded global supply chains, resulting in longer lead times and also increased critical component costs and freight expenses. We have taken and may have to take steps to minimize the impact of these disruptions in lead times and increased costs by working closely with our suppliers and other third parties on whom we rely for the conduct of our business. Despite the actions we have undertaken or may have to undertake to minimize the impacts from disruptions to the global economy, there can be no assurances that unforeseen future events in the global supply chain will not have a material adverse effect on our business, financial condition and results of operations.

Furthermore, inflation can adversely affect us by increasing the costs of clinical trials, the research and development of our product candidates, as well as administration and other costs of doing business. We may experience increases in the prices of labor and other costs of doing business. In an inflationary environment, cost increases may outpace our expectations, causing us to use our cash and other liquid assets faster than forecasted. If this happens, we may need to raise additional capital to fund our operations, which may not be available in sufficient amounts or on reasonable terms, if at all, sooner than expected.

Adverse global conditions, including economic uncertainty, may negatively impact our financial results.

Global conditions, dislocations in the financial markets, any negative financial impacts affecting United States as a result of tax reform or changes to existing trade agreements or tax conventions, may adversely impact our business.

In addition, the global macroeconomic environment could be negatively affected by, among other things, COVID-19 or other pandemics or epidemics, instability in global economic markets, increased U.S. trade tariffs and trade disputes with other countries, instability in the global credit markets, supply chain weaknesses, instability in the geopolitical environment as a result of the withdrawal of the United Kingdom from the European Union, the Russian invasion of Ukraine and other political tensions, and foreign governmental debt concerns. Such challenges have caused, and may continue to cause, uncertainty and instability in local economies and in global financial markets.

Risks Related to our Common Stock

An active, liquid trading market for our common stock may not be sustained.

Presently, our common stock is traded on The Nasdaq Capital Market, or Nasdaq, and an investment in our company may require a long-term commitment, with no certainty of return. If we are unable to maintain an active, liquid active trading market:

- investors may have difficulty buying and selling or obtaining market quotations;
- market visibility for shares of our common stock may be limited; and
- a lack of visibility for shares of our common stock may have a depressive effect on the market price for shares of our common stock.

The lack of an active market could impair your ability to sell your shares at the time you wish to sell them or at a price that you consider reasonable. The lack of an active market may also reduce the fair market value of your shares. An inactive market may also impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire additional intellectual property assets by using our shares as consideration.

We are currently listed on The Nasdaq Capital Market. If we are unable to maintain listing of our securities on The Nasdaq Capital Market or any stock exchange, our stock price could be adversely affected and the liquidity of our stock and our ability to obtain financing could be impaired and it may be more difficult for our stockholders to sell their securities.

Although our common stock is currently listed on The Nasdaq Capital Market, we may not be able to continue to meet the exchange's minimum listing requirements or those of any other national exchange. If we are unable to maintain listing on Nasdaq or if a liquid market for our common stock does not develop or is sustained, our common stock may remain thinly traded.

The Listing Rules of Nasdaq require listing issuers to comply with certain standards in order to remain listed on its exchange. If, for any reason, we should fail to maintain compliance with these listing standards and Nasdaq should delist our securities from trading on its exchange and we are unable to obtain listing on another national securities exchange, a reduction in some or all of the following may occur, each of which could have a material adverse effect on our stockholders:

- the liquidity of our common stock;
- the market price of our common stock;
- our ability to obtain financing for the continuation of our operations;
- the number of institutional and general investors that will consider investing in our common stock;
- the number of investors in general that will consider investing in our common stock;
- the number of market makers in our common stock;
- the availability of information concerning the trading prices and volume of our common stock; and
- the number of broker-dealers willing to execute trades in shares of our common stock.

Our failure to maintain compliance with Nasdaq’s continued listing requirements could result in the delisting of our common stock

On January 3, 2022, we received a letter (the “Notice”) from the Listing Qualifications Staff (the “Staff”) of the Nasdaq Stock Market, LLC (“Nasdaq”) indicating that, based upon the closing bid price of our common stock for the last 30 consecutive business days, we are not in compliance with the requirement to maintain a minimum bid price of \$1.00 per share for continued listing on the Nasdaq Global Market, as set forth in Nasdaq Listing Rule 5550(a)(2) (the “Minimum Bid Price Requirement”). We were provided a compliance period of 180 calendar days from the date of the Notice, or until July 5, 2022, to regain compliance with the minimum closing bid requirement, pursuant to Nasdaq Listing Rule 5810(c)(3)(A). On July 6, 2022, we transferred to The Nasdaq Capital Market, and we were afforded the remainder of The Nasdaq Capital Market’s second 180 calendar day compliance period, or until January 3, 2023, to regain compliance with the Minimum Bid Price Requirement.

On December 20, 2022, we held a special meeting of stockholders at which our stockholders approved the adoption and approval of an amendment to our Charter to effect a reverse stock split of the shares of our common stock, issued and outstanding or held by the Company in treasury, at a specific ratio, ranging from 1:4 to 1:40, with the exact ratio to be determined by our board of directors without further approval or authorization of the Company’s stockholders. On February 9, 2023, our board of directors approved a 1:30 reverse stock split (the “Reverse Stock Split”) which became effective on February 14, 2023.

On January 4, 2023, we received notice from the Staff that due to our continued non-compliance with the Minimum Bid Price Requirement, it had determined to delist our securities from The Nasdaq Capital Market unless we timely request a hearing before the Nasdaq Hearings Panel (the “Panel”). We timely requested a hearing before the Panel and appeared before the Panel on February 23, 2023. On March 7, 2023, we received notice that we had regained compliance with the Minimum Bid Price Requirement.

There can be no assurance that we will continue to maintain compliance with the Minimum Bid Price Requirement or maintain compliance with the other Nasdaq listing requirements. A delisting could substantially decrease trading in our common stock, adversely affect the market liquidity of our common stock as a result of the loss of market efficiencies associated with Nasdaq and the loss of federal preemption of state securities laws, adversely affect our ability to obtain financing on acceptable terms, if at all, and may result in the potential loss of confidence by investors, suppliers, customers and employees and fewer business development opportunities. Additionally, the market price of our common stock may decline further, and stockholders may lose some or all of their investment.

The market price of our common stock may be significantly volatile.

The market price for our common stock may be volatile and subject to wide fluctuations in response to factors including the following:

- actual or anticipated fluctuations in our quarterly or annual operating results;
- changes in financial or operational estimates or projections;
- conditions in markets generally;
- changes in the economic performance or market valuations of companies similar to ours; and
- general economic or political conditions in the United States or elsewhere.

In particular, the market prices of biotechnology companies like ours have been highly volatile due to factors, including, but not limited to:

- any delay or failure to conduct a clinical trial for our product or receive approval from the FDA and other regulatory agencies;
- developments or disputes concerning a company's intellectual property rights;
- technological innovations of such companies or their competitors;
- changes in market valuations of similar companies;
- announcements by such companies or their competitors of significant contracts, acquisitions, strategic partnerships, joint ventures, capital commitments, new technologies, or patents; and
- failure to complete significant transactions or collaborate with vendors in manufacturing a product.

The securities market has from time-to-time experienced significant price and volume fluctuations that are not related to the operating performance of particular companies. These market fluctuations may also materially and adversely affect the market price of shares of our common stock.

Future sales of shares by existing stockholders could cause our stock price to decline.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, 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.

As of December 31, 2022, we had outstanding options to purchase an aggregate of 617,996 shares of our common stock at a weighted average exercise price of \$88.99 per share and warrants to purchase an aggregate of 50,207 shares of our common stock at a weighted average exercise price of \$283.81 per share. The exercise of such outstanding options and warrants will result in further dilution of your investment. If our existing stockholders sell substantial amounts of our common stock in the public market, or if the public perceives that such sales could occur, this could have an adverse impact on the market price of our common stock, even if there is no relationship between such sales and the performance of our business.

We do not currently intend to pay dividends on our common stock in the foreseeable future, and consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We have never declared or paid cash dividends on our common stock and do not anticipate paying any cash dividends to holders of our common stock in the foreseeable future. Consequently, investors must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investments. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which our investors have purchased their shares.

There may be limitations on the effectiveness of our internal controls, and a failure of our control systems to prevent error or fraud may materially harm our company.

We are required, pursuant to Section 404 of the Sarbanes-Oxley Act, to furnish a report by our management on, among other things, the effectiveness of our internal control over financial reporting. This assessment will need to include disclosure of any material weaknesses identified by our management in our internal control over financial reporting. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected on a timely basis.

Effective internal control over financial reporting is necessary for us to provide reliable and timely financial reports and, together with adequate disclosure controls and procedures, are designed to reasonably detect and prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. Undetected material weaknesses in our internal control over financial reporting could lead to financial statement restatements and require us to incur the expense of remediation.

We do not expect that our disclosure controls or internal control over financial reporting will prevent or detect all error or all fraud. We may in the future discover weaknesses in our system of internal control over financial reporting that could result in a material misstatement of our financial statements. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected. If we identify one or more material weaknesses in our internal controls, investors could lose confidence in the reliability of our financial statements, the market price of our stock could decline and we could be subject to sanctions or investigations by The Nasdaq Stock Market, the SEC or other regulatory authorities. Failure of our control systems to detect or prevent error or fraud could materially adversely impact us.

We may be unable to complete our analysis of our internal controls over financial reporting in a timely manner, or these internal controls may not be determined to be effective, which may adversely affect investor confidence in our company and, as a result, the value of our common stock.

We may not be able to complete our evaluation and testing of our internal control over financial reporting and any required remediation in a timely fashion. During the evaluation and testing process, if we identify one or more material weaknesses in our internal control over financial reporting, we will be unable to assert that our internal controls are effective.

If we are unable to assert that our internal control over financial reporting is effective, or, if applicable, our independent registered public accounting firm is unable to express an opinion on the effectiveness of our internal controls, we could lose investor confidence in the accuracy and completeness of our financial reports, which would cause the price of our common stock to decline, and we may be subject to investigation or sanctions by the SEC. We will also be required to disclose changes made in our internal control and procedures on a quarterly basis.

If we identify a material weakness, our remediation efforts may not enable us to avoid a material weakness in our internal control over financial reporting in the future. Any of the foregoing occurrences, should they come to pass, could negatively impact the public perception of our company, which could have a negative impact on our stock price.

Upon dissolution of our company, you may not recoup all or any portion of your investment.

In the event of a liquidation, dissolution or winding-up of our company, whether voluntary or involuntary, the proceeds and/or assets of our company remaining after giving effect to such transaction, and the payment of all of our debts and liabilities and distributions required to be made to holders of any outstanding preferred stock will then be distributed to the stockholders of common stock on a pro rata basis. There can be no assurance that we will have available assets to pay to the holders of common stock, or any amounts, upon such a liquidation, dissolution or winding-up of our Company. In this event, you could lose some or all of your investment.

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

We have incurred substantial losses during our history and do not expect to become profitable in the near future, and we may never achieve profitability. Unused federal net operating losses for tax years beginning before January 1, 2018 may be carried forward to offset future taxable income, if any, until such unused net operating losses expire. Under legislation enacted in 2017, informally titled the Tax Cuts and Jobs Act, or the Tax Act, as modified by legislation enacted on March 27, 2020, entitled the Coronavirus Aid, Relief, and Economic Security Act, or the CARES Act, federal net operating losses incurred in tax years beginning after December 31, 2017, can be carried forward indefinitely, but the deductibility of such federal net operating losses in tax years beginning after December 31, 2020 is limited to 80% of taxable income. In addition, as a result of our merger in April 2014 with Corbus Pharmaceuticals, Inc., our wholly-owned subsidiary, our ability to utilize our federal net operating loss, carryforwards and federal tax credit prior to that date may be limited under Sections 382 of the Internal Revenue Code. The limitations apply if an "ownership change," as defined by Section 382, occurs. Generally, an ownership change occurs if the percentage of the value of the stock that is owned by one or more direct or indirect "five percent shareholders" increases by more than 50 percentage points over their lowest ownership percentage at any time during the applicable testing period (typically three years). In addition, future changes in our stock ownership, which may be outside of our control, may trigger an "ownership change" and, consequently, Section 382 limitations. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards and other tax attributes to offset United States federal taxable income may be subject to limitations, which could potentially result in increased future tax liability to us.

Legislation or other changes in U.S. tax law could adversely affect our business and financial condition.

The rules dealing with U.S. federal, state, and local income taxation are constantly under review by persons involved in the legislative process and by the Internal Revenue Service and the U.S. Treasury Department. Changes to tax laws (which changes may have retroactive application) could adversely affect us or holders of our common stock. In recent years, many changes have been made to applicable tax laws and changes are likely to continue to occur in the future. For example, the Tax Act, made significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%; limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses); and, subject to certain changes in tax law made by the CARES Act as discussed above, limitation of the deduction of net operating losses generated in tax years beginning after December 31, 2017 to 80% of taxable income, indefinite carryforward of net operating losses generated in tax years after 2018 and elimination of net operating loss carrybacks generated in tax years ending after December 31, 2017; changes in the treatment of offshore earnings regardless of whether they are repatriated; current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations, mandatory capitalization of research and development expenses beginning in 2022; immediate deductions for certain new investments instead of deductions for depreciation expense over time; further deduction limits on executive compensation; and modifying, repealing and creating many other business deductions and credits, including the reduction in the orphan drug credit from 50% to 25% of qualifying expenditures. We continue to examine the impact this tax reform legislation may have on our business. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the Tax Act is uncertain and our business and financial condition could be adversely affected. The impact of this tax reform on holders of our common stock is also uncertain and could be adverse. This periodic report does not discuss any such tax legislation or the manner in which it might affect us or our stockholders in the future. We urge our stockholders to consult with their legal and tax advisors with respect to such legislation. In addition, the CARES Act included certain changes in tax law intended to stimulate the U.S. economy in light of the COVID-19 outbreak, including temporary beneficial changes to the treatment of net operating losses, interest deductibility limitations and payroll tax matters.

It cannot be predicted whether, when, in what form, or with what effective dates, new tax laws may be enacted, or regulations and rulings may be enacted, promulgated or issued under existing or new tax laws, which could result in an increase in our or our shareholders' tax liability or require changes in the manner in which we operate in order to minimize or mitigate any adverse effects of changes in tax law or in the interpretation thereof.

Our certificate of incorporation, as amended, allows for our board to create new series of preferred stock without further approval by our stockholders, which could adversely affect the rights of the holders of our common stock.

Our board of directors has the authority to fix and determine the relative rights and preferences of preferred stock. We anticipate that our board of directors will have the authority to issue up to 10,000,000 shares of our preferred stock without further stockholder approval. As a result, our board of directors could authorize the issuance of a series of preferred stock that would grant to holders the preferred right to our assets upon liquidation and the right to receive dividend payments before dividends are distributed to the holders of common stock. In addition, our board of directors could authorize the issuance of a series of preferred stock that has greater voting power than our common stock or that is convertible into our common stock, which could decrease the relative voting power of our common stock or result in dilution to our existing stockholders.

Item 1B. UNRESOLVED STAFF COMMENTS

Not applicable.

Item 2. PROPERTIES

Our principal offices are located at 500 River Ridge Drive, Norwood, MA 02062 and consists of 63,256 square feet of leased office space at December 31, 2022. The lease term for this office space ends on November 30, 2026. Effective August 26, 2021, the Company entered into a sublease agreement with a third party to sublease 12,112 square feet of the first floor. The sublease term ends on October 31, 2026.

Item 3. LEGAL PROCEEDINGS

We are not currently subject to any material legal proceedings. However, we may from time to time become a party to various legal proceedings arising in the ordinary course of our business.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

Item 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Information

Our common stock is currently listed on The Nasdaq Capital Market under the symbol "CRBP." Our shares of common stock began trading on The Nasdaq Global Market under the symbol "CRBP" effective April 16, 2015. Effective July 8, 2022, our shares of common stock were transferred to The Nasdaq Capital Market under the same symbol "CRBP."

Dividends

We have never declared or paid cash dividends on our common stock. We do not intend to declare or pay cash dividends on our common stock for the foreseeable future, but currently intend to retain any future earnings to fund the development and growth of our business. The payment of cash dividends if any, on the common stock will rest solely within the discretion of our board of directors and will depend, among other things, upon our earnings, capital requirements, financial condition, and other relevant factors.

Record Holders

As of March 3, 2023 there are approximately 86 record holders of shares of our common stock.

Item 6. RESERVED

Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read together with our financial statements and the related notes and the other financial information included elsewhere in this Annual Report. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed below and elsewhere in this Annual Report, particularly those under "Risk Factors."

Overview

Corbus Pharmaceuticals Holdings, Inc. (the "Company" or "Corbus") is a precision oncology company committed to helping people defeat serious illness by bringing innovative scientific approaches to well understood biological pathways. Corbus' internal development pipeline includes CRB-701, a next generation antibody drug conjugate (ADC) that targets the expression of Nectin-4 on cancer cells to release a cytotoxic payload and CRB-601, an anti-integrin monoclonal antibody that blocks the activation of TGF β expressed on cancer cells. The Company has also developed CRB-913, an endocannabinoid small molecule drug, for the treatment of obesity and is seeking partners to fund further development.

Corbus' precision oncology internal development pipeline:

- CRB-701 is a next generation ADC that targets the expression of Nectin-4 on cancer cells to release a cytotoxic payload. In February 2023, the Company obtained a license from CSPC Megalith Biopharmaceutical Co., Ltd ("CSPC"), a subsidiary of CSPC Pharmaceutical Group Limited, to develop and commercialize the drug in the United States ("U.S."), Canada, the European Union (including the European Free Trade Area), the United Kingdom, and Australia (the "CSPC License Agreement"). The Investigational New Drug (IND) application for CRB-701 has been cleared by the U.S. FDA and the drug is currently being investigated by CSPC in a Phase 1 dose escalation clinical trial in patients with advanced solid tumors in China. Corbus is planning to bridge data from this Phase 1 trial to support a U.S. clinical trial starting in mid-2024.
- CRB-601 is an anti- α v β 8 monoclonal antibody that blocks the activation of TGF β expressed on cancer cells in the tumor microenvironment. In pre-clinical models, CRB-601 demonstrates enhanced anti-tumor activity when combined with anti-PD-1 checkpoint inhibitor therapy compared to either single agent alone. Pre-clinical data suggests that blockade of latent TGF β production by CRB-601 can lead to changes in immune cell infiltration in the tumor microenvironment, potentially enhancing the benefit of PD-1 blockade. CRB-601 is being developed as a potential treatment for patients with solid tumors in combination with existing therapies, including checkpoint inhibitors, and is scheduled for an IND submission in the second half of 2023. The Company expects to enroll the first patient in the Phase 1 study by the end of 2023.

Corbus' endocannabinoid pipeline:

- CRB-913 is a second-generation cannabinoid receptor type 1 (CB1) inverse agonist designed to treat obesity and related metabolic diseases. In the diet-induced obesity mice model (DIO), CRB-913 demonstrates a reduction in weight and food consumption, improvement in insulin resistance and leptinemia, and reduced fat deposits in the liver. The CRB-913 program is in the pre-clinical stage, and we are seeking partnerships to fund further development.
- Lenabasum is a novel, synthetic, oral molecule that selectively activates cannabinoid receptor type 2 (CB2) for the treatment of inflammation and fibrosis. The drug completed Phase 3 studies in dermatomyositis and systemic sclerosis and these studies failed to meet their primary endpoints. In November 2022, the National Institutes of Health released results for the Phase 2 study it sponsored in systemic lupus erythematosus and lenabasum failed to demonstrate efficacy versus placebo. We do not plan to conduct additional clinical studies for lenabasum.

Financial Operations Overview

We are a precision oncology company and have not generated any revenues from the sale of products. We do not expect to generate revenue from product sales unless and until we successfully complete development and obtain regulatory approval for the marketing of one of our product candidates, which we expect will take a number of years and is subject to significant uncertainty. We have never been profitable and at December 31, 2022, we had an accumulated deficit of approximately \$392,081,000. Our net losses for the years ended December 31, 2022 and December 31, 2021 were approximately \$42,347,000 and \$45,640,000, respectively.

We expect to continue to incur significant expenses for the foreseeable future. We expect our expenses to increase in 2023 as compared to 2022 as assets in our pipeline move into the clinical phase. We will continue to incur significant operating losses and accordingly we will need additional financing to support our continuing operations. We will seek to fund our operations through public or private equity, debt financings or other sources, which may include government grants and collaborations with third parties. Adequate additional financing may not be available to us on acceptable terms, or at all. Our failure to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We will need to generate significant revenues to achieve profitability, and we may never do so.

We expect to continue to incur operating losses for at least the next several years in connection with our ongoing activities, as we:

- conduct pre-clinical and clinical trials for our product candidates;
- continue our research and development efforts; and
- manufacture drugs for clinical studies.

Recent Developments

CSPC License Agreement

On February 12, 2023, we entered into the CSPC License Agreement with CSPC pursuant to which we received an exclusive license to obtain certain exclusive rights to develop and commercialize CRB-701 (SYS6002), a novel clinical stage antibody drug conjugate targeting Nectin-4. The CSPC License Agreement covers exclusive commercialization rights to CRB-701 in the United States, Canada, the European Union (including the European Free Trade Area), the United Kingdom, and Australia.

We will pay CSPC an upfront payment of \$7.5 million (\$5.0 million at signing followed by a \$2.5 million payment after eighteen months). CSPC will also be eligible to receive low double-digit royalties on net sales and up to \$130 million in potential development and regulatory milestone payments and \$555 million in potential commercial milestone payments.

Series A Preferred Stock

On October 12, 2022, the Board of Directors (the "Board"), declared a dividend of 0.008 of a share of Series A Preferred Stock ("Series A Preferred Stock"), for each outstanding share of Common Stock to stockholders of record at 5:00pm Eastern Time on October 22, 2022. The Certificate of Designation of Series A Preferred Stock was filed with the Delaware Secretary of State and became effective on October 12, 2022. The dividend was based on the number of outstanding shares of common stock prior to the Reverse Stock Split. This resulted in 1,002,247.048 shares of preferred stock being issued. The outstanding shares of Series A Preferred Stock were entitled to vote together with the outstanding shares of common stock as a single class exclusively with respect to any proposal to adopt an amendment to the Company's Amended and Restated Certificate of Incorporation, as amended (the "Certificate of Incorporation"), to reclassify the outstanding shares of Common Stock into a smaller number of shares of Common Stock at a ratio specified in or determined in accordance with the terms of such amendment (the "Reverse Stock Split"), as well as any proposal to adjourn any meeting of stockholders called for the purpose of voting on the Reverse Stock Split Proposal (the "Adjournment Proposal").

The Company held a special meeting of stockholders on December 20, 2022 (the "Special Meeting") for the purpose of voting on the Reverse Stock Split and an Adjournment Proposal. All shares of Series A Preferred Stock that were not present in person or by proxy at the Special Meeting, which totaled 500,894.04 shares, were automatically redeemed by the Company immediately prior to the opening of the polls at Special Meeting (the "Initial Redemption"). All shares that were not redeemed pursuant to the Initial Redemption would be redeemed if ordered by the Board or automatically upon the effectiveness of the amendment to the Certificate of Incorporation implementing the Reverse Stock Split (the "Subsequent Redemption" and together with the Initial Redemption, the "Redemption"). Each share of Series A Preferred Stock is entitled to receive \$0.001 in cash for each 10 whole shares of Series A Preferred Stock immediately prior to the Redemption.

At the Special Meeting, both the Reverse Stock Split and Adjournment Proposal were approved.

Upon issuance of the Series A Preferred Stock, the Company was not solely in control of the Redemption of the shares of Series A Preferred Stock since the holders had the option of deciding whether to attend or return a proxy card for the Special Meeting, which determined whether a given holder's shares of Series A Preferred Stock were redeemed in the Initial Redemption. Since the Redemption of the Series A Preferred Stock was not solely in the control of the Company, the shares of Series A Preferred Stock are classified within mezzanine equity. The shares of Series A Preferred Stock were initially recorded at redemption value, which approximated fair value.

After the Special Meeting upon approval of the Reverse Stock Split, the remaining 501,353.008 shares outstanding of Series A Preferred Stock would be considered mandatorily redeemable and reclassified to a current liability. As of December 31, 2022, the fair value of the Series A Preferred Stock were included in accrued expenses. As of December 31, 2022, there were 0 shares of Series A Preferred Stock issued and outstanding within the consolidated balance sheet, however, the Series A Preferred Stock were redeemed on February 14, 2023, upon the effectiveness of the amendment to the Certificate of Incorporation implementing the Reverse Stock Split pursuant to the terms of the Certificate of Designation of the Series A Preferred Stock.

Reverse Stock Split

On February 9, 2023, the Board of Directors approved a 1-for-30 reverse stock split, and we filed the Amendment for the Reverse Stock Split with the Secretary of State of the State of Delaware. The Reverse Stock Split became effective in accordance with the terms of the Amendment on February 14, 2023. The Amendment did not change the number of authorized shares of common stock or the par value. All references in the consolidated financial statements to shares, share prices, exercise prices, and other per share information in all periods have been adjusted, on a retroactive basis, to reflect the split.

Amended Loan and Security Agreement with K2 HealthVentures LLC

On October 25, 2022, we, with our subsidiary, Corbus Pharmaceuticals, Inc., as borrower, entered into an amendment to the Loan and Security Agreement (the "Amended Loan and Security Agreement") dated as of July 28, 2020 with K2 HealthVentures LLC ("K2HV"), an unrelated third party, to defer the commencement of principal repayments by a one year period from September 1, 2022 to September 1, 2023. If we raise at least \$30 million in net proceeds through capital raising transactions, the commencement of principal repayments will be deferred by an additional six months to March 1, 2024. Pursuant to the Amended Loan and Security Agreement, we paid \$119,000 at the time of entering into the Amended Loan and Security Agreement and will pay \$400,000 at the maturity of the loan. In addition, pursuant to the initial Loan and Security Agreement, the Lenders may jointly elect at any time and from time to time prior to the payment in full of the loans to convert any portion (in a minimum amount of \$500,000) of the principal amount of the loans then outstanding into shares of our common stock at a conversion price of \$282.00 per share, provided that the aggregate principal amount of loans converted by the Lenders into common stock may not exceed \$5,000,000. The Amended Loan and Security Agreement adjusts the conversion price of a \$2,000,000 portion of the maximum \$5,000,000 convertible amount by adjusting the conversion price of \$875,000 of the loan from \$282.00 per share to \$4.50 per share, and \$1,125,000 of the loan from \$282.00 per share to \$7.875 per share.

Critical Accounting Policies

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America ("GAAP"). The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period.

On an ongoing basis, we evaluate our estimates and judgments for all assets and liabilities, including those related to accrued research and development expense, stock-based compensation expense, and operating lease right of use assets and liabilities. We base our estimates and judgments on historical experience, current economic and industry conditions and on various other factors that are believed to be reasonable under the circumstances. This forms the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. See Note 3 "Significant Accounting Policies" to the consolidated financial statements included under Part II, Item 8 of this Annual Report on Form 10-K for information about our significant accounting policies.

We believe that full consideration has been given to all relevant circumstances that we may be subject to, and the consolidated financial statements accurately reflect our best estimate of the results of operations, financial position and cash flows for the periods presented.

Accrued Research and Development Expenses

As part of the process of preparing financial statements, we are required to estimate and accrue expenses, the largest of which are research and development expenses. This process involves: communicating with our applicable 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 actual cost; estimating and accruing expenses in our financial statements as of each balance sheet date based on facts and circumstances known to us at the time; and periodically confirming the accuracy of our estimates with selected service providers and making adjustments, if necessary.

Examples of estimated research and development expenses that we accrue include:

- fees paid to CROs and research institutions in connection with pre-clinical studies;
- fees paid to contract manufacturers in connection with the production of drugs for studies and clinical trials;
- fees paid to CROs and research institutions in connection with conducting of clinical studies; and
- professional service fees for consulting and related services.

We base our expense accruals related to pre-clinical and clinical activities on our estimates of the services performed pursuant to contracts with multiple research institutions and clinical research organizations that conduct and manage pre-clinical and clinical work on our behalf. The financial terms of these agreements vary from contract to contract and may result in uneven payment flows. Payments under some of these contracts depend on factors, such as the successful animal trials and the completion of study milestones. Our service providers invoice us monthly in arrears for services performed. 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 we do not identify costs that we have begun to incur, or if we underestimate or overestimate the level of services performed or the costs of these services, our actual expenses could differ from our estimates.

To date, we have not experienced significant changes in our estimates of accrued research and development expenses following each applicable reporting period. However, due to the nature of estimates, we cannot assure you that we will not make changes to our estimates in the future as we become aware of additional information regarding the status or conduct of our pre-clinical and clinical studies and other research activities.

Stock-Based Compensation

Stock options are granted with an exercise price at no less than fair market value at the date of the grant. The stock options normally expire ten years from the date of grant. Stock option awards vest upon terms determined by our board of directors.

We recognize compensation costs resulting from the issuance of stock-based awards to employees, members of our Board of directors and consultants. The fair value of each option grant was estimated as of the date of grant using the Black-Scholes option-pricing model. The fair value is amortized as compensation cost on a straight-line basis over the requisite service period of the awards, which is generally the vesting period. We estimate volatility by analyzing the volatility of the trading price of our common stock. We use historical data, as well as subsequent events occurring prior to the issuance of the consolidated financial statements, to estimate option exercise and employee forfeitures within the valuation model. The expected term of options granted to employees under our stock plans is based on the average of the contractual term (generally 10 years) and the vesting period (generally 48 months). The expected term of options granted under the 2014 Plan, all of which qualify as "plain vanilla" per SEC Staff Accounting Bulletin 107, is based on the average of the 6.25 years. For non-employee options, the expected term is the contractual term. The risk-free rate is based on the yield of a U.S. Treasury security with a term consistent with the option. We estimate the forfeiture rate at the time of grant and revise it, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based on management's expectation through industry knowledge and historical data. We have never paid dividends on our common stock and do not anticipate paying dividends on our common stock in the foreseeable future. Accordingly, we have assumed no dividend yield for purposes of estimating the fair value of our share-based compensation.

The following assumptions were used to estimate the fair value of employee stock options granted using the Black-Scholes option pricing model for the years ended December 31, 2022 and 2021 is as follows:

	Twelve Months Ended December 31,	
	2022	2021
Risk free interest rate	1.99 %	0.76 %
Expected dividend yield	0 %	0 %
Expected term in years	6.25	6.23
Expected volatility	98.08 %	102.96 %
Estimated forfeiture rate	12.43 %	9.12 %

Leases

We lease our office space. We determine if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use (“ROU”) assets and operating lease liabilities, current and noncurrent in our consolidated balance sheets.

ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As our leases do not provide an implicit rate, we use an incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. This is the rate we would have to pay if borrowing on a collateralized basis over a similar term to each lease. The ROU asset also includes any lease payments made and excludes lease incentives. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The Company has subleased a portion of its leased facility under an agreement considered to be an operating lease according to GAAP. The Company has not been legally released from its primary obligations under the original lease and therefore it continues to account for the original lease as it did before commencement of the sublease. The Company will record both fixed and variable payments received from the sublessee in its statement of operations on a straight-line basis as an offset to rent expense.

Recently Issued Accounting Pronouncements

Recent accounting pronouncements which may be applicable to us are described in Note 3 “Significant Accounting Policies” to our Consolidated Financial Statements included under Part II, Item 8 of this Annual Report on Form 10-K.

Results of Operations

Comparison of Year Ended 2022 to 2021

Revenue from Awards. We have recognized approximately \$0 and \$882,000 of revenue from awards in the years ended December 31, 2022 and 2021, respectively, in accordance with GAAP. No revenue from licenses was recognized for the years ended December 31, 2022 and 2021.

Amounts recognized in revenue from awards for the year ended December 31, 2021 was in connection with our entry on January 26, 2018 into the Cystic Fibrosis Program Related Investment Agreement (“Investment Agreement”) with the Cystic Fibrosis Foundation (“CFF”), a non-profit drug discovery and development corporation, pursuant to which we received a development award for up to \$25 million in funding (the “2018 CFF Award”) to support a Phase 2b Clinical Trial (the “Phase 2b Clinical Trial”) of lenabasum in patients with cystic fibrosis. We received cash payments in an aggregate of \$12,500,000 during the year ended December 31, 2018, an additional \$5,000,000 during the year ended December 31, 2019, \$5,000,000 in the third quarter of 2020, and \$2,500,000 in the fourth quarter of 2021 upon our achievement of a milestone related to the progress of the Phase 2b Clinical Trial, as set forth in the Investment Agreement. We received the entire \$25 million from the CFF and have recorded a total of \$18,784,775 in revenue to date less the fair value of \$6,215,225 associated with the CFF Warrant (see note 11 and 16). We will not be recognizing revenue in the future from the 2018 CFF award and do not currently have any other award agreements.

Research and Development. Research and development expenses for the year ended December 31, 2022 totaled approximately \$16,137,000, a decrease of \$20,308,000 over the \$36,445,000 recorded for the year ended December 31, 2021. The decrease in fiscal 2022 as compared to fiscal 2021 was primarily attributable to lower clinical expenses of approximately \$8,015,000 and a reduction in data analysis expenses associated with the completion of lenabasum clinical studies of \$1,574,000. There were also decreases of \$7,428,000 in compensation costs and \$2,160,000 in consulting costs as clinical and manufacturing headcount was reduced due to the completion of the lenabasum clinical studies. License payments decreased \$1,889,000 as the licensing payments were made to UCSF and PRI in 2021. These decreases are offset by an increase in toxicology costs of \$2,055,000 as CRB-601 is prepared for clinical trials.

Research and development expenses are expected to increase in 2023 as the assets in our pipeline move into the clinical phase beginning in 2023.

During 2018, the Company formed a subsidiary in each of the United Kingdom and Australia and approximately 43% and 25% of research and development expenses recorded for the years ended December 31, 2022 and December 31, 2021 respectively was recorded in these entities.

General and Administrative. General and Administrative expense for the year ended December 31, 2022 totaled approximately \$18,699,000, a decrease of \$1,726,000 from the \$20,425,000 recorded for the year ended December 31, 2021. The decrease in fiscal 2022 as compared to fiscal 2021 was primarily attributable to decreases of approximately \$2,414,000 of compensation costs due to reductions in headcount as the Company transitioned to the pre-clinical phase and needed less support staff. This decrease was partially offset by an increase in legal expenses of \$926,000 relating to the Venn Settlement and exploring business development opportunities.

We expect our general and administrative expenses to decrease in 2023 as compared to 2022 as we do not expect litigation costs to recur.

Litigation Settlement. Litigation Settlement expense for the year ended December 31, 2022 totaled \$5,000,000 as a result of the settlement with Venn Therapeutics, LLC. There was no litigation settlement for the year ended December 31, 2021.

We do not expect to incur any litigation settlement costs in 2023.

Other Income (Expense), Net. Other income (expense), net for 2022 was an expense of approximately \$2,511,000 as compared to income of approximately \$10,349,000 recorded for 2021. The decrease of \$12,860,000 in 2022 as compared to 2021 was primarily attributable to a decrease in refundable research and development credits from a foreign tax authority of approximately \$12,300,000 as compared to the prior year. The current year refundable research and development credits are expected to be realized in the first half of 2023.

In addition to refundable research and development tax credits that were earned on certain research and development expenses incurred primarily outside of the United States, other income (expense), net consists of interest income we earn on interest-bearing accounts, realized investment gains and losses, interest expense incurred on our outstanding debt, changes in derivative liabilities, and realized and unrealized foreign currency exchange gains and losses.

We expect other income (expense), net to increase in 2023 due to the receipt of the current year refundable research and development credits along with the application and receipt of next year's refundable research and development credits.

Liquidity and Capital Resources

Since inception, we have experienced negative cash flows from operations. We have financed our operations primarily through sales of equity-related securities. At December 31, 2022, our accumulated deficit since inception was approximately \$392,081,000.

At December 31, 2022, we had total current assets of approximately \$60,181,000 and current liabilities of approximately \$12,640,000 resulting in working capital of approximately \$47,541,000. Of our total cash, cash equivalents, investments, and restricted cash of \$59,867,000 at December 31, 2022, \$57,062,000 was held within the United States.

Net cash used in operating activities for the year ended December 31, 2022 was approximately \$37,544,000 which includes a net loss of approximately \$42,347,000, adjusted for non-cash expenses of approximately \$8,826,000, principally related to stock-based compensation expense of \$5,720,000, depreciation and amortization expense of \$763,000, amortization of debt discount of \$742,000, operating lease right of use asset amortization of \$725,000, and loss on foreign exchange of \$649,000, and approximately \$4,024,000 of cash used by net working capital items, principally related to the decreases in accrued expenses of \$4,094,000 and operating lease liabilities of \$1,136,000. These decreases in working capital were offset by a decrease in prepaid expenses of \$1,573,000.

Cash provided by investing activities for the year ended December 31, 2022 totaled approximately \$30,074,000, which was largely due to the proceeds from sales and maturities of investments, net of purchases.

Cash used in financing activities for the year ended December 31, 2022 totaled approximately \$534,000, which related to the repayment of short-term borrowings of approximately \$867,000 in connection with our loan agreement with a financing company to fund D&O insurance premiums. This was offset by proceeds from the issuance of a new notes payable of approximately \$452,000 to fund D&O insurance premiums, which the terms of the loan stipulate equal monthly payments of principal and interest payments of approximately \$51,000 over a nine-month period. Interest accrues on this loan at an annual rate of 5.40%. Finally, the Company began making principal payments on its Loan and Security Agreement with K2HV in September 2022, however, as part of the Amended Loan and Security Agreement effective October 2022, principal repayments were deferred by one year, therefore, these principal payments were returned net of fees of \$119,000.

We expect our cash, cash equivalents, and investments of approximately \$59.2 million at December 31, 2022 will be sufficient to meet our operating and capital requirements through the second quarter of 2024 based on current planned expenditures.

We will need to raise significant additional capital to continue to fund operations, including the discovery and pre-clinical costs for our product candidates. If we are unable to raise sufficient capital in the future, we may be required to undertake cost-cutting measures, including delaying or discontinuing certain clinical activities. We may seek to sell common stock, preferred stock, or convertible debt securities, enter into a credit facility or another form of third-party funding or seek other debt financing. In addition, we may seek to raise cash through collaborative agreements or from government grants. The sale of equity and convertible debt securities may result in dilution to our stockholders and certain of those securities may have rights senior to those of our common shares. If we raise additional funds through the issuance of preferred stock, convertible debt securities or other debt financing, these securities or other debt could contain covenants that would restrict our operations. Any other third-party funding arrangement could require us to relinquish valuable rights.

The source, timing and availability of any future financing will depend principally upon market conditions, and, more specifically, on the progress of our clinical development programs.

Funding may not be available when needed, at all, or on terms acceptable to us. Lack of necessary funds may require us, among other things, to delay, scale back or eliminate expenses including some or all of our planned clinical trials.

Contractual Obligations and Commitments

Our contractual obligations as of December 31, 2022 consists of our amended lease agreement (“February 2019 Lease Agreement”) for an aggregate total of 62,756 square feet of leased office space (“Total Premises”) through November 30, 2026. Total rent expense for the year ended December 31, 2022 was \$1,652,563 and we do not expect any significant changes in future periods. In addition, the Company entered into a sublease agreement with a third party to sublease 12,112 square feet of our leased space. The sublease commenced on October 1, 2021 and ends October 31, 2026. Rent expense for the twelve months ended December 31, 2022 was offset by \$220,531 of sublease income and we do not expect any significant changes in future periods.

We may enter into contracts in the normal course of business with clinical research organizations for clinical trials and clinical supply manufacturing and with vendors for pre-clinical research studies, research supplies and other services and products for operating purposes. These contracts generally provide for termination on notice, and therefore, we believe that our non-cancelable obligations under these agreements are not material. As of December 31, 2022, other than our leases, we had no material Contractual Obligations or Commitments that will affect our future liquidity.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors, other than future royalty payments under development award agreements discussed as follows:

License Agreement with Jenrin

Pursuant to the terms of the Jenrin License Agreement, we are obligated to pay potential milestone payments to Jenrin totaling up to \$18.4 million for each compound we elect to develop based upon the achievement of specified development and regulatory milestones. In addition, we are obligated to pay Jenrin royalties in the mid, single digits based on net sales of any Licensed Products, as defined in the Jenrin License Agreement, subject to specified reductions.

The Jenrin License Agreement terminates on a country-by-country basis and product-by-product basis upon the expiration of the royalty term for such product in such country. Each royalty term begins on the date of the first commercial sale of the licensed product in the applicable country and ends on the later of seven years from such first commercial sale or the expiration of the last to expire of the applicable patents in that country. The Jenrin License Agreement may be terminated earlier in specified situations, including termination for uncured material breach of the Jenrin License Agreement by either party, termination by Jenrin in specified circumstances, termination by Corbus with advance notice and termination upon a party's insolvency or bankruptcy.

License Agreement with Milky Way

Pursuant to the terms of the Milky Way License Agreement, we are obligated to pay potential milestone payments to Milky Way totaling up to \$53.0 million based upon the achievement of specified development and regulatory milestones. In addition, we are obligated to pay Milky Way royalties in the lower, single digits based on net sales of any Licensed Products, as defined in the Milky Way License Agreement.

The Milky Way License Agreement will remain in effect on a Licensed Product-by-License Product and country-by-country basis, until the expiration of the Royalty Term of the Licensed Product in the country. The "Royalty Term" means the period beginning from the First Commercial Sale of the Licensed Product in the country until the expiration of the last-to-expire Valid Claim in any Licensor Patent in the country that Covers the composition of matter of the Licensed product, the manufacture of the Licensed Product in the country, or a method of use of the Licensed Product for an indication for which Regulatory Approval has been obtained in the country. The Milky Way License Agreement may be terminated earlier in specified situations, including termination for material breach or termination by Corbus with advance notice.

License Agreement with UCSF

Pursuant to the terms of the UCSF License Agreement, we are obligated to pay potential milestone payments to UCSF totaling up to \$153.15 million based upon the achievement of specified development and regulatory milestones, excluding indication milestones for antibodies used for diagnostic products and services that will be an additional \$50,000 for each new indication. In addition, we are obligated to pay UCSF royalties in the lower, single digits based on net sales of any Licensed Products, as defined in the UCSF License Agreement, and any diagnostic products and services.

The UCSF License Agreement will remain in effect until the expiration or abandonment of the last of the Patent Rights licensed. The Royalty Term is the duration of Patent Rights in that country covering the applicable Licensed Product or Licensed Services Sold in the country. The UCSF License Agreement may be terminated earlier in specified situations, including termination for material breach, termination by Corbus with advance notice and termination upon a party's bankruptcy.

License Agreement with CSPC

Pursuant to the terms of the CSPC License Agreement, we are obligated to pay potential milestone payments to CSPC totaling up to \$130 million based upon the achievement of specified development and regulatory milestones and \$555 million in potential commercial milestone payments. In addition, we are obligated to pay CSPC royalties in the low double digits based on net sales of any Licensed Products, as defined in the CSPC License Agreement.

The CSPC License Agreement will remain in effect on a Licensed Product and on a country-by-country basis, until the expiration of the Royalty Term of the Licensed Product in the country. The Royalty Term is the period beginning from the First Commercial Sale of the Licensed Product in the country until the later of the expiration of the last-to-expire Valid Claim in any Licensor Patent in the country that Covers the Licensed product, 10 years after the date of the First Commercial Sale in the country, or expiration of the Regulatory Exclusivity for the Licensed Product in the country. The CSPC License Agreement may be terminated earlier in specified situations, including termination for material breach, termination by Corbus with advance notice and termination upon a party's bankruptcy.

Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market risk is limited to our cash and cash equivalents, all of which have maturities of three months or less. The primary objectives of our investment activities are to preserve principal, provide liquidity and maximize income without significantly increasing risk. Our primary exposure to market risk is interest income 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 and/or results of operation.

Foreign Exchange Risk

The majority of our operations are based in the United States and, accordingly our transactions are denominated in U.S. Dollars. However, we have foreign currency exposures related to our cash valued in the United Kingdom in British Pounds and Euros and our cash valued in Australia in Australian Dollars because our functional currency is the U.S. Dollar in our foreign-based subsidiaries. Our foreign denominated assets and liabilities are remeasured each reporting period with any exchange gains and losses recorded in our consolidated statements of operations and comprehensive income.

Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

See pages F-67 through F-94 following the Exhibit Index of this Annual Report on Form 10-K.

Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

Item 9A. CONTROLS AND PROCEDURES*Evaluation of Our Disclosure Controls and Procedures*

We maintain disclosure controls and procedures that are designed to provide reasonable assurance that material information required to be disclosed in our periodic reports filed under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and to provide reasonable assurance that such information is accumulated and communicated to our management, our principal executive officer and our principal financial officer, to allow timely decisions regarding required disclosure. Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act, as amended) as of the end of the period covered by this report. Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this report were effective in ensuring that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that the information required to be disclosed by us in such reports is accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal controls over financial reporting, as such term is defined in Rule 13a-15(f) of the Exchange Act. Our management conducted an assessment of the effectiveness of our internal control over financial reporting based on the criteria set forth in the "Internal Control-Integrated Framework (2013)" issued by the Committee of Sponsoring Organization of the Treadway Commission. Based on this assessment, management concluded that, as of December 31, 2022, our internal control over financial reporting was effective. This annual report does not include an attestation report of our registered public accounting firm on internal control over financial reporting.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) that occurred during the period to which this report relates that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Item 9B. OTHER INFORMATION

None.

Item 9C. DISCLOSURE REGARDING FOREIGN JURISDICTION THAT PREVENTS INSPECTIONS

Not applicable.

PART III

Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Information required by this item is incorporated by reference to our Proxy Statement for the 2023 Annual Meeting of Stockholders.

Item 11. EXECUTIVE COMPENSATION

Information required by this item is incorporated herein by reference to our Proxy Statement for the 2023 Annual Meeting of Stockholders.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information required by this item is incorporated by reference to our Proxy Statement for the 2023 Annual Meeting of Stockholders.

Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

Information required by this item is incorporated by reference to our Proxy Statement for the 2023 Annual Meeting of Stockholders.

Item 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information required by this item is incorporated by reference to our Proxy Statement for the 2023 Annual Meeting of Stockholders.

PART IV

Item 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) List of Documents filed as part of this Report

(1) Consolidated Financial Statements

The financial statements and related notes, together with the report of EisnerAmper LLP (PCAOB ID: 274) appear at pages F-67 through F-94 following the Exhibit List as required by Part II, Item 8 "Financial Statements and Supplementary Data" of this Form 10-K.

(2) Financial Statement Schedules.

Schedules are omitted because they are either not required, not applicable, or the information is otherwise included.

(3) Exhibits

The Company has filed with this report or incorporated by reference herein certain exhibits as specified below pursuant to Rule 12b-32 under the Exchange Act. See Exhibit Index following the signature page to this report for a complete list of documents filed with this report.

<u>Exhibit No.</u>	<u>Description</u>
3.1	<u>Amended and Restated Certificate of Incorporation of the Company, as amended.*</u>
3.2	<u>Amended and Restated Bylaws of the Company.*</u>
4.1	<u>Form of Merger Warrant (incorporated by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014).</u>
4.2	<u>Form of Replacement Warrant (incorporated by reference to Exhibit 4.2 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014).</u>
4.3	<u>Form of Investor Warrant (incorporated by reference to Exhibit 4.3 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014).</u>
4.4	<u>Form of Additional Replacement Warrant (incorporated by reference to Exhibit 4.4 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014).</u>
4.5	<u>Form of Placement Agent Warrant (incorporated by reference to Exhibit 4.5 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014).</u>
4.6	<u>Registration Rights Agreement (incorporated by reference to Exhibit 4.6 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014).</u>
4.7	<u>Specimen Common Stock Certificate, \$0.0001 par value (incorporated herein by reference to Exhibit 4.1 of the Company's Registration Statement on Form S-3 filed with the SEC on November 10, 2015).</u>
4.8	<u>Warrant to Purchase Common Stock, dated as of January 26, 2018, issued to the Cystic Fibrosis Foundation (incorporated herein by reference to Exhibit 4.8 of the Company's Annual Report on Form 10-K filed with the SEC on March 12, 2018).</u>
4.9	<u>Form of Warrant to Purchase Common Stock (incorporated herein by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed with the SEC on July 29, 2020).</u>
4.10	<u>Description of Capital Stock*</u>
10.1	<u>2014 Equity Compensation Plan (incorporated by reference to Exhibit 10.5 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014). †</u>

- 10.2 [Form of Incentive Stock Option Agreement \(incorporated by reference to Exhibit 10.6 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014\).](#) †
- 10.3 [Form of Non-Qualified Stock Option Agreement \(incorporated by reference to Exhibit 10.7 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014\).](#) †
- 10.4 [Form of Restricted Stock Agreement \(incorporated by reference to Exhibit 10.8 of the Company's Registration Statement on Form S-1 filed with the SEC on September 3, 2014\).](#) †
- 10.5 [Form of Indemnification Agreement \(incorporated by reference to Exhibit 10.15 of the Company's Registration Statement on Amendment No. 1 to Form S-1 filed with the SEC on September 30, 2014\).](#) †
- 10.6 [Award Agreement, dated April 9, 2015, between Cystic Fibrosis Foundation Therapeutics, Inc. and the Company \(incorporated herein by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed with the SEC on May 13, 2015\).](#)#
- 10.7 [Consulting Agreement, dated September 20, 2016, between Company and Orchestra Medical Ventures, LLC \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed with the SEC on September 21, 2016\).](#)
- 10.8 [Lease, dated May 30, 2014, between Corbus Pharmaceuticals, Inc. and River Ridge Limited Partnership \(incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed with the SEC on November 10, 2016\).](#)
- 10.9 [First Amendment to Lease, dated August 27, 2015, between Corbus Pharmaceuticals, Inc. and River Ridge Limited Partnership \(incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K filed with the SEC on November 10, 2016\).](#)
- 10.10 [Second Amendment to Lease, dated March 30, 2016, between Corbus Pharmaceuticals, Inc. and River Ridge Limited Partnership \(incorporated by reference to Exhibit 10.4 of the Company's Current Report on Form 8-K filed with the SEC on November 10, 2016\).](#)
- 10.11 [Third Amendment to Lease, dated September 13, 2016, between Corbus Pharmaceuticals, Inc. and River Ridge Limited Partnership \(incorporated by reference to Exhibit 10.5 of the Company's Current Report on Form 8-K filed with the SEC on November 10, 2016\).](#)
- 10.12 [Lease Agreement, dated August 21, 2017, by and between Corbus Pharmaceuticals, Inc. and River Ridge Limited Partnership \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed with the SEC on August 22, 2017\).](#)
- 10.13 [Guarantee, dated August 21, 2017, by Corbus Pharmaceuticals Holdings, Inc. \(incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed with the SEC on August 22, 2017\).](#)
- 10.14 [Cystic Fibrosis Program Related Investment Agreement, dated January 26, 2018, between Cystic Fibrosis Foundation Therapeutics, Inc. and the Company \(incorporated herein by reference to Exhibit 10.33 of the Company's Annual Report on Form 10-K filed with the SEC on March 12, 2018\).](#)#
- 10.15 [License Agreement, dated as of September 20, 2018, between Corbus Pharmaceuticals, Inc. and Jenrin Discovery, LLC \(incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed with the SEC on November 8, 2018\).](#)#
- 10.16 [Lease Amendment No. 1, dated as of February 26, 2019, among River Ridge Limited Partnership, Corbus Pharmaceuticals, Inc. and Corbus Pharmaceuticals Holdings, Inc. \(incorporated by reference to Exhibit 10.40 of the Company's Annual Report on Form 10-K filed with the SEC on March 12, 2019\).](#)
- 10.17 [Separation and General Release Agreement between Corbus Pharmaceuticals Holdings, Inc. and Mark Tepper, dated March 31, 2019 \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed with the SEC on April 1, 2019\).](#)

- 10.18 [Lease Amendment No. 2, dated as of October 25, 2019, among River Ridge Limited Partnership, Corbus Pharmaceuticals, Inc. and Corbus Pharmaceuticals Holdings, Inc. \(incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed with the SEC on November 7, 2019\)](#)
- 10.19 [Loan and Security Agreement, dated as of July 28, 2020, by and between Corbus Pharmaceuticals Holdings, Inc., Corbus Pharmaceuticals, Inc., K2 HealthVentures LLC and Ankura Trust Company, LLC \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed with the SEC on July 29, 2020\).](#)
- 10.20 [Separation and Release Agreement between the Company and Robert Discordia, dated November 30, 2020 \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed with the SEC on December 4, 2020\).](#) †
- 10.21 [License Agreement between the Company and Milky Way BioPharma, LLC, dated May 25, 2021 \(incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q filed with the SEC on August 12, 2021\).](#) #
- 10.22 [License Agreement between the Company and The Regents of the University of California, dated May 26, 2021 \(incorporated by reference to Exhibit 10.2 of the Company's Quarterly Report on Form 10-Q filed with the SEC on August 12, 2021\).](#) #
- 10.23 [Separation and General Release Agreement between the Company and Barbara White, dated September 17, 2021 \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on September 22, 2021\).](#) †
- 10.24 [Employment Agreement between the Company and Rachael Brake, effective as of December 6, 2021 \(incorporated herein by reference to Exhibit 10.31 of the Company's Annual Report on Form 10-K filed with the SEC on March 8, 2022\).](#) †
- 10.25 [Form of Fourth Amended and Restated Employment Agreement between Corbus Pharmaceuticals Holdings, Inc. and Yuval Cohen \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on April 15, 2022\).](#) †
- 10.26 [Form of Fifth Amended and Restated Employment Agreement between Corbus Pharmaceuticals Holdings, Inc. and Sean Moran \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on April 15, 2022\).](#) †
- 10.27 [Form of Second Amended and Restated Employment Agreement between Corbus Pharmaceuticals Holdings, Inc. and Craig Millian \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the SEC on April 15, 2022\).](#) †
- 10.28 [Second Amendment to Loan and Security Agreement, dated as of July 28, 2020, by and between Corbus Pharmaceuticals Holdings, Inc., Corbus Pharmaceuticals, Inc., K2 HealthVentures LLC and Ankura Trust Company, LLC \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed with the SEC on October 31, 2022\).](#)
- 10.29 [License Agreement between the Company and CSPC Megalith Biopharmaceutical Co., Ltd.](#)*
- 21.1 [List of Subsidiaries of the Company.](#)*
- 23.1 [Consent of EisnerAmper LLP.](#)*
- 31.1 [Certification of Chief Executive Officer pursuant to Rule 13a-14\(a\) or Rule 15d-14\(a\).](#)*
- 31.2 [Certification of Chief Financial Officer pursuant to Rule 13a-14\(a\) or Rule 15d-14\(a\).](#)*
- 32.1 [Certification of Chief Executive Officer pursuant to Rule 13a-14\(b\) or Rule 15d-14\(b\).](#)**
- 32.2 [Certification of Chief Financial Officer pursuant to Rule 13a-14\(b\) or Rule 15d-14\(b\).](#)**

- 101.INS Inline XBRL Instance Document.* – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
- 101.SCH Inline XBRL Taxonomy Extension Schema Document.*
- 101.CAL Inline XBRL Taxonomy Extension Calculation Linkbase Document.*
- 101.DEF Inline XBRL Taxonomy Extension Definition Linkbase Document.*
- 101.LAB Inline XBRL Taxonomy Extension Label Linkbase Document.*
- 101.PRE Inline XBRL Taxonomy Extension Presentation Linkbase Document.*
- 104 The cover page from the Company’s Annual Report on Form 10-K for the year ended December 31, 2020, has been formatted in Inline XBRL*

* Filed herewith.

** Furnished, not filed.

Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been submitted separately to the SEC.

† Indicates a management contract or compensation plan, contract or arrangement.

Item 16. FORM 10-K SUMMARY

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CORBUS PHARMACEUTICALS HOLDINGS, INC.

Date: March 7, 2023

By: /s/ YUVAL COHEN
Name: Yuval Cohen
Title: Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
<hr/> <i>/s/ YUVAL COHEN</i> <hr/> Yuval Cohen	Chief Executive Officer and Director (Principal Executive Officer)	March 7, 2023
<hr/> <i>/s/ SEAN MORAN</i> <hr/> Sean Moran	Chief Financial Officer (Principal Financial and Accounting Officer)	March 7, 2023
<hr/> <i>/s/ ALAN HOLMER</i> <hr/> Alan Holmer	Director	March 7, 2023
<hr/> <i>/s/ ANNE ALTMAYER</i> <hr/> Anne Altmeyer	Director	March 7, 2023
<hr/> <i>/s/ AVERY CATLIN</i> <hr/> Avery Catlin	Director	March 7, 2023
<hr/> <i>/s/ RACHELLE JACQUES</i> <hr/> Rachelle Jacques	Director	March 7, 2023
<hr/> <i>/s/ JOHN JENKINS</i> <hr/> John Jenkins	Director	March 7, 2023
<hr/> <i>/s/ PETER SALZMANN</i> <hr/> Peter Salzmann	Director	March 7, 2023
<hr/> <i>/s/ YONG BEN</i> <hr/> Yong Ben	Director	March 7, 2023

INDEX TO FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Corbus Pharmaceuticals Holdings, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Corbus Pharmaceuticals Holdings, Inc. and subsidiaries (the “Company”) as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive loss, stockholders’ equity, and cash flows for each of the years then ended, and the related notes (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of their operations and their cash flows for each of the years then ended, in conformity with accounting principles generally accepted in the United States of America

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.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of the critical audit matter does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Accruals for Research and Development Expenses

As described in Note 3 to the consolidated financial statements, at each balance sheet date, the Company estimates its accrued pre-clinical expenses resulting from its obligations under contracts with vendors, clinical research organizations and consultants in connection with performing pre-clinical work in preparation for clinical trials, and in making that estimate, may depend on factors such as successful enrollment of certain numbers of patients, site initiation, and the completion of contract milestones. The Company accounts for research and development expenses based on services that have been performed on the Company’s behalf and estimating the level of service performed and the associated cost incurred for the service when an invoice has not been received or the Company has not otherwise been notified of the actual cost. The Company estimates the time period over which services will be performed and the level of effort to be expended in each period. The Company’s accrual for pre-clinical and clinical trial expenses of \$2,385,000 is included in Accrued expenses on the December 31, 2022 consolidated balance sheet. The amounts recorded for pre-clinical and clinical trial expenses represent the Company’s estimate of the unpaid pre-clinical and clinical trial expenses based on the information available to the Company at that time. The estimation of pre-clinical and clinical trial expenses was also identified as a critical accounting estimate by management.

We identified the accruals for research and development expenses as a critical audit matter due to the significant judgment and estimation required by management in determining progress or state of completion of trials or services completed. This in turn led to a high degree of auditor subjectivity and significant audit effort was required in performing our procedures and evaluating audit evidence relating to estimates made by management.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the financial statements. We obtained an understanding and evaluated the design of controls over the Company's estimation of pre-clinical and clinical trial expenses, including the process of estimating the expenses incurred to date based on the status of the pre-clinical and clinical work. Our procedures also included, among others, reading agreements and contract amendments entered into with vendors in connection with conducting pre-clinical trials, evaluating the significant assumptions described above and the methods used in developing the pre-clinical trial estimates and calculating the amounts that were unpaid at the balance sheet date. We confirmed the assumptions directly with the third parties involved in performing the research and development services on behalf of the Company, where applicable. We also made direct inquiries of financial and pre-clinical client personnel regarding status, and progress towards completion, of pre-clinical trials and description of future commitments, and verified amounts paid to date under each contract by vouching to invoices and payment support. We also assessed the historical accuracy of management's estimates, and compared the current estimate of expenses incurred to estimates previously made by management.

/s/ EisnerAmper LLP

We have served as the Company's auditor since 2014.

EISNERAMPER LLP
Philadelphia, Pennsylvania
March 7, 2023

Corbus Pharmaceuticals Holdings, Inc.
Consolidated Balance Sheets

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 17,002,715	\$ 25,006,632
Investments	42,194,296	72,640,520
Restricted cash	192,475	192,475
Prepaid expenses and other current assets	791,616	2,365,010
Total current assets	<u>60,181,102</u>	<u>100,204,637</u>
Restricted cash	477,425	477,425
Property and equipment, net	1,613,815	2,392,696
Operating lease right of use assets	3,884,252	4,609,110
Other assets	155,346	46,385
Total assets	<u>\$ 66,311,940</u>	<u>\$ 107,730,253</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Notes payable	\$ 353,323	\$ 767,938
Accounts payable	2,173,963	1,782,277
Accrued expenses	5,999,252	10,093,312
Derivative liability	36,868	133,710
Operating lease liabilities, current	1,280,863	1,136,948
Current portion of long-term debt	2,795,669	3,093,344
Total current liabilities	<u>12,639,938</u>	<u>17,007,529</u>
Long-term debt, net of debt discount	15,984,426	15,636,275
Other long-term liabilities	22,205	22,205
Operating lease liabilities, noncurrent	4,675,354	5,956,217
Total liabilities	<u>33,321,923</u>	<u>38,622,226</u>
Stockholders' equity		
Preferred stock, \$0.0001 par value; 10,000,000 shares authorized, no shares issued and outstanding at December 31, 2022 and December 31, 2021. See Note 13	—	—
Common stock, \$0.0001 par value; 300,000,000 shares authorized, 4,171,297 and 4,169,631 shares issued and outstanding at December 31, 2022 and December 31, 2021, respectively	417	416
Additional paid-in capital	425,196,359	418,903,820
Accumulated deficit	(392,080,667)	(349,733,764)
Accumulated other comprehensive loss	(126,092)	(62,445)
Total stockholders' equity	<u>32,990,017</u>	<u>69,108,027</u>
Total liabilities and stockholders' equity	<u>\$ 66,311,940</u>	<u>\$ 107,730,253</u>

The accompanying notes are an integral part of these Consolidated Financial Statements.

Corbus Pharmaceuticals Holdings, Inc.
Consolidated Statements of Operations and Comprehensive Loss

	For the Twelve Months Ended December 31,	
	2022	2021
Revenue from awards	\$ —	\$ 881,705
Operating expenses:		
Research and development	16,136,826	36,445,285
General and administrative	18,698,619	20,425,444
Litigation settlement	5,000,000	—
Total operating expenses	39,835,445	56,870,729
Operating loss	(39,835,445)	(55,989,024)
Other income (expense), net:		
Other income (expense), net	(48,773)	11,899,992
Interest income (expense), net	(2,132,091)	(1,830,486)
Change in fair value of derivative liability	96,842	663,290
Foreign currency exchange gain (loss), net	(427,436)	(384,198)
Other income (expense), net	(2,511,458)	10,348,598
Net loss	\$ (42,346,903)	\$ (45,640,426)
Net loss per share, basic and diluted	\$ (10.15)	\$ (11.15)
Weighted average number of common shares outstanding, basic and diluted	4,170,675	4,094,935
Comprehensive loss:		
Net loss	\$ (42,346,903)	\$ (45,640,426)
Other comprehensive income (loss):		
Change in unrealized gain (loss) on marketable debt securities	(63,647)	(62,445)
Total other comprehensive income (loss)	(63,647)	(62,445)
Total comprehensive loss	\$ (42,410,550)	\$ (45,702,871)

The accompanying notes are an integral part of these Consolidated Financial Statements.

Corbus Pharmaceuticals Holdings, Inc.
Consolidated Statements of Stockholders' Equity

	Mezzanine Equity		For the Year Ended December 31, 2022				Accumulated Other Comprehensive Loss	Total Stockholders' Equity
	Series A Redeemable Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Deficit		
	Shares	Amount	Shares	Amount				
Balance at December 31, 2020	—	\$—	3,290,358	\$329	\$349,367,934	\$(304,093,338)	\$—	\$45,274,925
Issuance of common stock, net of issuance costs of \$1,820,437	—	—	851,320	85	59,110,715	—	—	59,110,800
Stock-based compensation expense	—	—	—	—	9,480,373	—	—	9,480,373
Issuance of common stock upon exercise of stock options	—	—	27,953	2	944,798	—	—	944,800
Change in unrealized gain (loss) on marketable debt securities	—	—	—	—	—	—	(62,445)	(62,445)
Net loss	—	—	—	—	—	(45,640,426)	—	(45,640,426)
Balance at December 31, 2021	—	\$—	4,169,631	\$416	\$418,903,820	\$(349,733,764)	\$(62,445)	\$69,108,027
Issuance of common stock, net of issuance costs of \$0	—	—	1,666	1	—	—	—	1
Issuance of Series A Redeemable Preferred Stock	1,002,247	100	—	—	(100)	—	—	—
Redemption of Series A Redeemable Preferred Stock	(1,002,247)	(100)	—	—	—	—	—	(100)
Stock-based compensation expense	—	—	—	—	5,719,637	—	—	5,719,637
Change in fair value of debt conversion feature	—	—	—	—	573,002	—	—	573,002
Change in unrealized gain (loss) on marketable debt securities	—	—	—	—	—	—	(63,647)	(63,647)
Net loss	—	—	—	—	—	(42,346,903)	—	(42,346,903)
Balance at December 31, 2022	—	\$—	4,171,297	\$417	\$425,196,359	\$(392,080,667)	\$(126,092)	\$32,990,017

The accompanying notes are an integral part of these Consolidated Financial Statements.

Corbus Pharmaceuticals Holdings, Inc.
Consolidated Statements of Cash Flows

	Twelve Months Ended December 31,	
	2022	2021
Cash flows from operating activities:		
Net loss	\$ (42,346,903)	\$ (45,640,426)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation expense	5,719,637	9,480,373
Depreciation and amortization	762,995	999,817
Loss on impairment of fixed assets	—	606,078
Net amortization on premium of investments	124,875	698,254
Stock consideration in connection with PRI License Agreement	—	250,000
Loss on foreign exchange	648,520	342,424
Operating lease right of use asset amortization	724,858	639,415
Amortization of debt discount	742,478	700,613
Realized loss on investments	178,222	—
Change in fair value of derivative liability	(96,842)	(663,290)
Loss on sale of property and equipment	21,235	99,520
Changes in operating assets and liabilities:		
Decrease in prepaid expenses	1,573,394	1,347,851
Decrease in contract asset	—	1,618,296
(Increase) decrease in other assets	(108,961)	187,652
Decrease in accounts payable	(256,835)	(5,956,297)
Decrease in accrued expenses	(4,094,160)	(11,912,120)
Increase in other long-term liabilities	—	22,205
Decrease in operating lease liabilities	(1,136,948)	(1,004,062)
Net cash used in operating activities	(37,544,435)	(48,183,697)
Cash flows from investing activities:		
Purchases of investments	(86,341,894)	(87,266,596)
Proceeds from sales and maturities of investments	116,421,376	13,880,343
Purchases of property and equipment	(13,449)	(54,172)
Proceeds from sale of property and equipment	8,100	23,900
Net cash provided by (used in) investing activities	30,074,133	(73,416,525)
Cash flows from financing activities:		
Proceeds from issuance of notes payable	452,250	984,375
Repayment of short-term borrowings	(866,865)	(926,595)
Proceeds from issuance of long-term borrowings	1,381,729	—
Repayment of long-term borrowings	(1,500,729)	—
Proceeds from issuance of common stock	—	62,586,070
Issuance costs paid for common stock financings	—	(1,820,437)
Net cash (used in) provided by financing activities	(533,615)	60,823,413
Net decrease in cash, cash equivalents, and restricted cash	(8,003,917)	(60,776,809)
Cash, cash equivalents, and restricted cash at beginning of the period	25,676,532	86,453,341
Cash, cash equivalents, and restricted cash at end of the period	\$ 17,672,615	\$ 25,676,532
Supplemental disclosure of cash flow information and non-cash transactions:		
Cash paid during the period for interest	\$ 1,969,583	\$ 1,740,878
Write off of fully depreciated property and equipment	—	544,752

The accompanying notes are an integral part of these Consolidated Financial Statements.

Corbus Pharmaceuticals Holdings, Inc.
Notes to Consolidated Financial Statements
December 31, 2022 and 2021

1.NATURE OF OPERATIONS

Business

Corbus Pharmaceuticals Holdings, Inc. (“the Company” or “Corbus”) is a precision oncology company committed to helping people defeat serious illness by bringing innovative scientific approaches to well understood biological pathways. Corbus’ pipeline being developed internally includes CRB-701, a next generation antibody drug conjugate that targets the expression of Nectin-4 on cancer cells to release a cytotoxic payload, and CRB-601, an anti-integrin monoclonal antibody which blocks the activation of TGFβ expressed on cancer cells. The Company also has a pipeline of endocannabinoid small molecule drugs and is seeking partners to fund further development. Since its inception, the Company has devoted substantially all of its efforts to business planning, research and development, recruiting management and technical staff, acquiring operating assets and raising capital. The Company’s business is subject to significant risks and uncertainties and the Company will be dependent on raising substantial additional capital before it becomes profitable, and it may never achieve profitability.

2.LIQUIDITY

The accompanying consolidated financial statements have been prepared assuming the Company will continue as a going concern, which contemplates continuity of operations, realization of assets and the satisfaction of liabilities and commitments in the normal course of business. The Company has incurred recurring losses since inception and as of December 31, 2022, had an accumulated deficit of approximately \$392,081,000. The Company anticipates operating losses to continue for the foreseeable future due to, among other things, costs related to research funding, development of its product candidates and its pre-clinical and clinical programs, strategic alliances and the development of its administrative organization. The Company expects the cash, cash equivalents, and investments of approximately \$59,197,000 at December 31, 2022 will be sufficient to meet its operating and capital requirements at least 12 months from the issuance of these consolidated financial statements.

The source, timing and availability of any future financing will depend principally upon market conditions, and, more specifically, on the progress of the Company’s clinical development programs. Funding may not be available when needed, at all, or on terms acceptable to the Company. Lack of necessary funds may require the Company to, among other things, delay, scale back or eliminate some or all of the Company’s planned clinical or pre-clinical trials.

On August 7, 2020, the Company entered into an Open Market Sale AgreementSM (the “August 2020 Sale Agreement”) with Jefferies LLC (“Jefferies”), as sales agent, pursuant to which the Company may issue and sell, from time to time, through Jefferies, shares of its common stock, and pursuant to which Jefferies may sell its common stock by any method permitted by law deemed to be an “at the market offering” as defined by Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended. The Company will pay Jefferies a commission of 3.0% of the aggregate gross proceeds from each sale of common stock and have agreed to provide Jefferies with customary indemnification and contribution rights. The Company has also agreed to reimburse Jefferies for certain specified expenses. As of August 7, 2020, the Company is authorized to offer and sell up to \$150 million of its common stock pursuant to the August 2020 Sale Agreement. During the year ended December 31, 2021, the Company sold 846,390 shares of its common stock under the August 2020 Sale Agreement for which the Company received gross proceeds of approximately \$60,681,238, less issuance costs incurred of approximately \$1,820,437. The Company has sold no additional shares of our common stock under the August 2020 Sale Agreement subsequent to December 31, 2022 (see Note 14).

3.SIGNIFICANT ACCOUNTING POLICIES

A summary of the significant accounting policies followed by the Company in the preparation of the consolidated financial statements is as follows:

Basis of Presentation

The accompanying financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”).

Reverse Stock Split

On February 14, 2023, the Company completed a 1-for-30 reverse split of its outstanding common stock. The Reverse Split did not change the number of authorized shares of common stock or par value. All references in these consolidated financial statements to shares, share prices, exercise prices, and other per share information in all periods have been adjusted, on a retroactive basis, to reflect the split (see Note 14).

Consolidation

The consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany transactions and accounts have been eliminated in consolidation.

Use of Estimates

The process of preparing financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates and changes in estimates may occur. The most significant estimates are related to stock-based compensation expense, the accrual of research, product development and clinical obligations, the recognition of revenue under the Investment Agreement (see Note 11), the valuation of warrants (see Note 9 and Note 16), and the derivative liability associated with the K2 Loan and Security Agreement (see Note 17).

Cash, Cash Equivalents, and Restricted Cash

The Company considers only those investments which are highly liquid, readily convertible to cash, and that mature within three months from date of purchase to be cash equivalents. At December 31, 2022 and 2021, cash equivalents were comprised of money market funds, commercial paper, and other debt securities with maturities less than three months from the date of purchase.

Restricted cash as of December 31, 2022 included security for a stand-by letter of credit issued in favor of a landlord for \$669,900 of which \$192,475 was classified in current assets and \$477,425 was classified in noncurrent assets as of December 31, 2022.

Cash and cash equivalents consist of the following:

	December 31, 2022	December 31, 2021
Cash	\$3,805,156	\$6,751,593
Cash Equivalents	13,197,559	18,255,039
Cash and cash equivalents	<u>\$17,002,715</u>	<u>\$25,006,632</u>
Restricted cash, current	192,475	192,475
Restricted cash, noncurrent	477,425	477,425
Restricted cash	<u>669,900</u>	<u>669,900</u>
Total cash, cash equivalents, and restricted cash shown in the statement of cash flows	<u>\$17,672,615</u>	<u>\$25,676,532</u>

As of December 31, 2022, all of the Company's cash and cash equivalents was held in the United States, except for approximately \$2,805,000 of cash which was held principally in our subsidiary in the United Kingdom. As of December 31, 2021, all of the Company's cash and cash equivalents was held in the United States, except for approximately \$5,752,000 of cash which was held principally in our subsidiary in the United Kingdom.

Investments

Investments consist of investments in debt securities and term deposits with maturities greater than 90 days at their acquisition date. The Company has classified its investments with maturities beyond one year as current, based on their highly liquid nature and because such investments represent the investment of cash that is available for current operations.

The Company classifies all of its marketable debt securities as available-for-sale securities. The Company's marketable debt securities are measured and reported at fair value using quoted prices in active markets for similar securities. Unrealized gains and losses on available-for-sale debt securities that are not impairment related are reported as accumulated other comprehensive gain or loss, which is a separate component of stockholders' equity. The cost of debt securities sold is determined on a specific identification basis, and realized gains and losses are included in other income (expense), net in the consolidated statements of operations and comprehensive loss.

The Company evaluates its marketable debt securities with unrealized losses for other-than-temporary impairment. When assessing marketable debt securities for other-than-temporary declines in value, the Company considers such factors as, among other things, how significant the decline in value is as a percentage of the original cost, how long the market value of the investment has been less than its original cost, the Company's ability and intent to retain the investment for a period of time sufficient to allow for any anticipated recovery in fair value and market conditions in general. If any adjustment to fair value reflects a decline in the value of the investment that the Company considers to be "other than temporary," the Company reduces the investment to fair value through a charge to the statement of operations and comprehensive loss. No such adjustments were necessary during the periods presented.

Concentrations of Credit Risk

The Company has no significant off-balance-sheet concentration of credit risk such as foreign exchange contracts, option contracts or other hedging arrangements. The Company may, from time to time, have cash in banks in excess of Federal Deposit Insurance Corporation insurance limits. However, the Company believes the risk of loss is minimal as these banks are large financial institutions.

Financial Instruments

The carrying values of the notes payable and debt approximate their fair value due to the fact that they are at market terms.

Fair Value Measurements

The valuation of the Company's debt and embedded derivatives are determined primarily by an income approach that considers the present value of net cash flows of the debt with and without prepayment and default features. These embedded debt features, which are determined to be classified as derivative liabilities are marked-to-market each reporting period, with a corresponding non-cash gain or loss charged to the current period. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. As a basis for considering such assumptions, there exists a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows:

Level 1 – Unadjusted quoted prices in active markets for identical assets or liabilities that the Company has the ability to access as of the measurement date

Level 2 – Inputs other than quoted prices included within Level 1 that are directly observable for the asset or liability or indirectly observable through corroboration with observable market data

Level 3 – Unobservable inputs for the asset or liability only used when there is little, if any, market activity for the asset or liability at the measurement date

The Company's investments, debt, and its derivative liabilities are carried at fair value determined according to the fair value hierarchy described above. The carrying values of the Company's prepaid expenses and other current assets, and accrued expenses approximate their fair values due to the short-term nature of these assets and liabilities.

To determine the fair value of our embedded derivatives, management evaluates assumptions regarding the probability of certain future events. Other factors used to determine fair value include the discount rate, risk-free interest rate, and derivative term. The fair value recorded for the derivative liability varies from period to period. This variability may result in the actual derivative liability for a period either above or below the estimates recorded on our consolidated financial statements, resulting in fluctuations in other income (expense) because of the corresponding non-cash gain or loss recorded.

Property and Equipment

The estimated life for the Company's property and equipment is as follows: three years for computer hardware and software and three to five years for office furniture and equipment. The Company's leasehold improvements and assets under capital lease are amortized over the shorter of their useful lives or the respective leases. See Note 7 for details of property and equipment and Note 8 for operating and capital lease commitments.

Leases

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets, other current liabilities, and operating lease liabilities in the Company's consolidated balance sheets.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As the Company's leases do not provide an implicit rate, the Company uses an incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. This is the rate the Company would have to pay if borrowing on a collateralized basis over a similar term to each lease. The ROU asset also includes any lease payments made and excludes lease incentives. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

The Company has subleased a portion of its leased facility under an agreement considered to be an operating lease according to U.S. GAAP. The Company has not been legally released from its primary obligations under the original lease and therefore it continues to account for the original lease as it did before commencement of the sublease. The Company will record both fixed and variable payments received from the sublessee in its statement of operations on a straight-line basis as an offset to rent expense.

Accruals for Research and Development Expenses and Clinical Trials

As part of the process of preparing its financial statements, the Company is required to estimate its expenses resulting from its obligations under contracts with vendors, clinical research organizations and consultants and under clinical site agreements in connection with conducting clinical trials. The financial terms of these contracts are subject to negotiations, which vary from contract to contract and may result in payment terms that do not match the periods over which materials or services are provided under such contracts. The Company's objective is to reflect the appropriate expenses in its financial statements by matching those expenses with the period in which services are performed and efforts are expended. The Company accounts for these expenses according to the timing of various aspects of the expenses. The Company determines the accrual estimates by taking into account discussions with applicable personnel and outside service providers as to the progress of clinical trials, or the services completed. During the course of a clinical trial, the Company adjusts its clinical expense recognition if actual results differ from its estimates. The Company makes estimates of its accrued expenses as of each balance sheet date based on the facts and circumstances known to it at that time. The Company's clinical trial accruals are dependent upon the timely and accurate reporting of contract research organizations and other third-party vendors. Although the Company does not expect its estimates to be materially different from amounts actually incurred, its understanding of the status and timing of services performed relative to the actual status and timing of services performed may vary and may result in it reporting amounts that are too high or too low for any particular period. For the years ended December 31, 2022 and 2021, there were no material adjustments to the Company's prior period estimates of accrued expenses for clinical trials.

Revenue Recognition

We recognize revenue in accordance with Accounting Standards Codification (“ASC”) 606, Revenue from Contracts with Customers (“ASC 606”), which applies to all contracts with customers, except for contracts that are within the scope of other standards, such as leases, insurance, collaboration arrangements, and financial instruments. Under ASC 606, we recognize revenue when our customer obtains control of promised goods or services, in an amount that reflects the consideration which we expect to receive in exchange for those goods or services. To determine revenue recognition for arrangements that we determine are within the scope of ASC 606, we perform the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) we satisfy a performance obligation. At contract inception, once the contract is determined to be within the scope of ASC 606, we assess the goods or services promised within each contract and determine those that are performance obligations and assess whether each promised good or service is distinct. We then recognize as revenue the amount of the transaction price that is allocated to the respective performance obligation when (or as) the performance obligation is satisfied.

Research and Development Expenses

Costs incurred for research and development are expensed as incurred.

Nonrefundable advance payments for goods or services that have the characteristics that will be used or rendered for future research and development activities pursuant to executory contractual arrangements with third party research organizations are deferred and recognized as an expense as the related goods are delivered or the related services are performed.

Asset Acquisitions

We account for asset acquisitions under the accounting standards for business combinations and research and development, as applicable. In-process research and development acquired in an asset acquisition is expensed immediately unless there is an alternative future use. Subsequent payments made for the achievement of milestones are evaluated to determine whether they have an alternative future use or should be expensed.

Segment Information

Operating segments are identified as components of an enterprise about which separate discrete financial information is available for evaluation by the chief operating decision maker, or decision-making group, in making decisions regarding resource allocation and assessing performance. To date, the Company has viewed its operations and manages its business as principally one operating segment, which is developing and commercializing therapeutics for autoimmunity, fibrosis, and cancer. As of December 31, 2022, all of the Company’s assets were located in the United States, except for approximately \$2,805,000 of cash, cash equivalents, and investments, \$136,000 of prepaid expenses and other assets, and \$0 of property and equipment, net which were held outside of the United States, principally in our subsidiary in the United Kingdom. As of December 31, 2021, all of the Company’s assets were located in the United States, except for approximately \$5,752,000 of cash, \$16,752,000 of investments, \$973,000 of prepaid expenses and other assets, and \$1,000 of property and equipment, net which were held outside of the United States, principally in our subsidiary in the United Kingdom.

Income Taxes

For federal and state income taxes, deferred tax assets and liabilities are recognized based upon temporary differences between the financial statement and the tax basis of assets and liabilities. Deferred income taxes are based upon prescribed rates and enacted laws applicable to periods in which differences are expected to reverse. A valuation allowance is recorded to reduce a net deferred tax benefit when it is not more likely than not that the tax benefit from the deferred tax assets will be realized. Accordingly, given the cumulative losses since inception, the Company has provided a valuation allowance equal to 100% of the deferred tax assets in order to eliminate the deferred tax assets amounts.

Tax positions taken or expected to be taken in the course of preparing the Company’s tax returns are required to be evaluated to determine whether the tax positions are “more-likely-than-not” of being sustained by the applicable tax authority. Tax positions not deemed to meet a more-likely-than-not threshold, as well as accrued interest and penalties, if any, would be recorded as a tax expense in the current year. There were no uncertain tax positions that require accrual or disclosure to the financial statements as of December 31, 2022 or 2021.

Impairment of Long-lived Assets

The Company continually monitors events and changes in circumstances that could indicate that carrying amounts of long-lived assets may not be recoverable. An impairment loss is recognized when expected undiscounted cash flows of an asset are less than an asset's carrying value. Accordingly, when indicators of impairment are present, the Company evaluates the carrying value of such assets in relation to the operating performance and future undiscounted cash flows of the underlying assets. An impairment loss equal to the excess of the fair value of the asset over its carrying amount, is recorded when it is determined that the carrying value of the asset may not be recoverable. The Company recognized an impairment loss of approximately \$606,000 in the third quarter of 2021 to write down the value of leasehold improvements as a result of entering into a sublease. The Company notes no impairment charges were taken in 2022. See Note 8 for more details on sublease agreement.

Stock-based Payments

The Company recognizes compensation costs resulting from the issuance of stock-based awards to employees, non-employees and directors as an expense in the statement of operations over the service period based on a measurement of fair value for each stock-based award. The fair value of each option grant is estimated as of the date of grant using the Black-Scholes option-pricing model, net of estimated forfeitures. The fair value is amortized as compensation cost on a straight-line basis over the requisite service period of the awards, which is generally the vesting period.

Foreign Currency

Transaction gains and losses arising from currency exchange rate fluctuations on transactions denominated in a currency other than the U.S. Dollar functional currency are recorded in the Company's statement of operations and comprehensive loss. Such transaction gains and losses may be realized or unrealized depending upon whether the transaction settled during the period or remains outstanding at the balance sheet date. The functional currency of the Company's foreign subsidiaries is the U.S. dollar.

Net Loss Per Common Share

Basic and diluted net loss per share of the Company's common stock has been computed by dividing net loss by the weighted average number of shares outstanding during the period. For years in which there is a net loss, options and warrants are anti-dilutive and therefore excluded from diluted loss per share calculations. The following table sets forth the computation of basic and diluted earnings per share for the years ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
Net loss	\$ (42,346,903)	\$ (45,640,426)
Weighted average number of common shares-basic	4,170,675	4,094,935
Net loss per share of common stock-basic	\$ (10.15)	\$ (11.15)

Warrants and options that have not been exercised have been excluded from the diluted calculation as all periods presented have a net loss and the impact of these securities would be anti-dilutive.

Recently Adopted Accounting Pronouncements

In December 2019, the Financial Accounting Standards Board (the "FASB") issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* which is intended to simplify various aspects related to accounting for income taxes. The Company's adoption of ASU 2019-12 as of January 1, 2021 had no impact on the Company's financial statements and related disclosures.

In May 2021, the FASB issued ASU 2021-04, *Earnings Per Share (Topic 260), Debt—Modifications and Extinguishments (Subtopic 470-50), Compensation—Stock Compensation (Topic 718), and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Issuer's Accounting for Certain Modifications or Exchanges of Freestanding Equity-Classified Written Call Options* which is intended to clarify and reduce diversity in an issuer's accounting for modifications or exchanges of freestanding equity-classified written call options that remain equity classified after modification of exchange. The Company's adoption of ASU 2021-04 as of January 1, 2022 had no material impact on the Company's financial statements and disclosures.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (“ASU 2016-13”), which requires the measurement and recognition of expected credit losses for financial assets held at amortized cost. ASU 2016-13 replaces the existing incurred loss impairment model with an expected loss model. It also eliminates the concept of other-than-temporary impairment and requires credit losses related to available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes may result in earlier recognition of credit losses. In November 2018, the FASB issued ASU No. 2018-19, *Codification Improvements to Topic 326, Financial Instruments—Credit Losses*, which narrowed the scope and changed the effective date for non-public entities for ASU 2016-13. The FASB subsequently issued supplemental guidance within ASU No. 2019-05, *Financial Instruments—Credit Losses (Topic 326): Targeted Transition Relief* (“ASU 2019-05”). ASU 2019-05 provides an option to irrevocably elect the fair value option for certain financial assets previously measured at amortized cost basis. The Company's adoption of ASU 2016-13 as of January 1, 2023 had no impact on the Company's financial statements as there are no assets held at amortized cost on the balance sheet and there are no credit losses associated with our available-for-sale debt securities.

As a result of the adoption of ASU 2016-13, the Company has updated its significant accounting policy related to investments, specifically available-for-sale debt securities, and allowance for credit losses effective January 1, 2023 as follows:

The Company evaluates its marketable debt securities with unrealized losses for impairment. When assessing marketable debt securities for potential impairment, the Company considers available evidence, including the extent to which fair value is less than cost, whether an allowance for credit loss is required, and adverse factors that could affect the value of the securities. An impairment has occurred if the Company does not expect to recover the entire amortized cost basis of the marketable debt security. If the Company does not intend to sell the impaired debt security and it is not more likely than not required to sell the debt security before the recovery of its amortized cost basis, the amount of the impairment related to credit losses is recognized in an allowance for credit losses with an offsetting entry to Other income (expense), net. The remaining portion of the impairment related to other factors is recognized in Other comprehensive loss. Realized gains and losses for debt securities are included in Other income (expense), net.

In August 2020, the FASB issued ASU 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging—Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* which is intended to simplify various aspects of GAAP for certain financial instruments with characteristics of liabilities and equity. The Company's early adoption of ASU 2020-06 as of January 1, 2023 had no impact on the Company's financial statements and disclosures.

Recently Issued Accounting Pronouncements

The Company considers the applicability and impact of all ASUs. Management determined that recently issued ASUs are not expected to have a material impact on its consolidated financial statements.

4. INVESTMENTS

The following table summarizes the Company's investments as of December 31, 2022 (in thousands):

	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Losses	Fair Value
Debt Securities:				
Commercial paper	\$12,174	\$—	\$—	\$12,174
Corporate debt securities	30,146	—	(126)	30,020
Total	\$42,320	\$—	\$(126)	\$42,194

The following table summarizes the amortized cost and fair value of the Company's available-for-sale marketable debt securities by contractual maturity as of December 31, 2022 (in thousands):

	Amortized Cost	Fair Value
Maturing in one year or less	\$42,320	\$42,194
Maturing after one year but less than three years	—	—
	\$42,320	\$42,194

The following table summarizes the Company's investments as of December 31, 2021 (in thousands):

	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Losses	Fair Value
Commercial paper	\$12,794	\$—	\$—	\$12,794
Corporate debt securities	32,922	—	(58)	32,864
Asset backed securities	10,235	—	(4)	10,231
Term deposits	16,752	—	—	16,752
Total	\$72,703	\$—	\$(62)	\$72,641

The following table summarizes the amortized cost and fair value of the Company's available-for-sale marketable debt securities by contractual maturity as of December 31, 2021 (in thousands):

	Amortized Cost	Fair Value
Maturing in one year or less	\$44,859	\$44,848
Maturing after one year but less than three years	11,092	11,041
	\$55,951	\$55,889

5. FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES

The following tables present information about the Company's financial assets and liabilities measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values as of December 31, 2022 (in thousands):

	Level 1	Level 2	Level 3	Total
Assets:				
Cash Equivalents:				
Money market funds	\$8,471	\$—	\$—	\$8,471
Commercial paper	—	1,495	—	1,495
Corporate debt securities	—	3,232	—	3,232
Investments:				
Commercial paper	—	12,174	—	12,174
Corporate debt securities	—	30,020	—	30,020
	\$8,471	\$46,921	\$—	\$55,392
Liabilities:				
Derivative liabilities	\$—	\$—	\$37	\$37

The following tables present information about the Company's financial assets and liabilities measured at fair value on a recurring basis and indicate the level of the fair value hierarchy utilized to determine such fair values as of December 31, 2021 (in thousands):

	Level 1	Level 2	Level 3	Total
Assets:				
Cash Equivalents:				
Money Market funds	\$18,255	\$—	\$—	\$18,255
Investments:				
Term deposits	16,752	—	—	16,752
Commercial paper	—	12,794	—	12,794
Corporate debt securities	—	32,864	—	32,864
Asset backed securities	—	10,231	—	10,231
	\$35,007	\$55,889	\$—	\$90,896
Liabilities:				
Derivative liabilities	\$—	\$—	\$134	\$134

6.LICENSE AGREEMENTS

The Company entered into a license agreement (the “Jenrin License Agreement”) with Jenrin Discovery, LLC, a privately held Delaware limited liability company (“Jenrin”), effective September 20, 2018. Pursuant to the Jenrin License Agreement, Jenrin granted the Company exclusive worldwide rights to develop and commercialize the Licensed Products (as defined in the Jenrin Agreement) which includes the Jenrin library of over 600 compounds and multiple issued and pending patent filings. The compounds are designed to treat inflammatory and fibrotic diseases by targeting the endocannabinoid system.

In consideration of the license and other rights granted by Jenrin, the Company paid Jenrin a \$250,000 upfront cash payment and is obligated to pay potential milestone payments to Jenrin totaling up to \$18,400,000 for each compound it elects to develop based upon the achievement of specified development and regulatory milestones. In addition, Corbus is obligated to pay Jenrin royalties in the mid, single digits based on net sales of any Licensed Products, subject to specified reductions.

The Company entered into a license agreement (the “Milky Way License Agreement”) with Milky Way BioPharma, LLC (“Milky Way”), a subsidiary of Panorama Research Inc., effective May 25, 2021. Pursuant to the Milky Way License Agreement, the Company received an exclusive license, under certain patent rights and know-how owned or controlled by Milky Way, to develop, commercialize, and otherwise exploit products containing antibodies against integrin $\alpha\beta6$ and/or integrin $\alpha\beta8$ (“Licensed Products”), one of which the Company is referring to as CRB-602. Under the terms of the Milky Way License Agreement, the Company will have sole responsibility for research, development, and commercialization of any Licensed Products, and Company has agreed to use commercially reasonable efforts to perform these activities. The Milky Way Agreement may be terminated earlier in specified situations, including termination for material breach or termination by Corbus with advance notice.

In consideration for the license and other rights granted to the Company under the Milky Way License Agreement, the Company paid Milky Way an upfront payment of \$500,000 and issued to Milky Way 147,875 shares of its common stock. The Company is obligated to pay up to \$53,000,000 in potential milestone payments for the achievement of certain development, regulatory, and sales milestones. At the Company’s election, the Company may satisfy a portion of certain milestone payments by issuing shares of its common stock. In addition, the Company is obligated to pay royalties in the low, single digits on sales of Licensed Products during the life of the applicable licensed patents on a country-by-county and product-by-product basis, which is subject to a minimum annual royalty obligation, as well as a percentage share of certain payments received by Company from sublicensees.

The Company entered into a license agreement (the “UCSF License Agreement”) with the Regents of the University of California (“The Regents”) effective May 26, 2021. Pursuant to the UCSF License Agreement, the Company received an exclusive license to certain patents relating to humanized antibodies against integrin $\alpha\beta8$, one of which the Company is referring to as CRB-601, along with non-exclusive licenses to certain related know-how and materials. In consideration for the license and other rights granted to the Company under the UCSF License Agreement, the Company paid The Regents a license issue fee of \$1,500,000.

The Company amended the UCSF License Agreement with The Regents effective November 17, 2022 adding additional antibody patents to the agreement. In consideration for the additional antibody patents granted to the Company, the Company will pay The Regents a license issue fee of \$750,000, payable in two equal installments of \$375,000 (first payment due within 7 days of the Amendment Effective Date and the second payment due on the first anniversary of the Amendment Effective Date).

In addition to the license issuance fees, the Company is obligated to pay an annual license maintenance fee, as well as up to \$153,150,000 in potential milestone payments, excluding indication milestones for antibodies used for diagnostic products and services that will be an additional \$50,000 for each new indication, for the achievement of certain development, regulatory, and sales milestones. In addition, the Company is obligated to pay royalties in the low, single digits on sales of products falling within the scope of the licensed patents, which is subject to a minimum annual royalty obligation, and a percentage share of certain payments received by Company from sublicensees or in connection with the sale of the licensed program.

The Company determined that substantially all of the fair value of the Jenrin License Agreement was attributable to a single in-process research and development asset which did not constitute a business. The Company determined that substantially all of the fair value of the Milky Way License Agreement and the UCSF License Agreement was attributable to separate groups of in-process research and development assets which did not constitute a business. The Company concluded that it did not have any alternative future use for the acquired in-process research and development assets. Thus, the Company recorded the various upfront payment to research and development expenses in the quarter the license deals became effective. The Company will account for the development, regulatory, and sales milestone payments in the period that the relevant milestones are achieved as either research and development expense or as an intangible asset as applicable.

7.PROPERTY AND EQUIPMENT

Property and Equipment consisted of the following:

	December 31, 2022	December 31, 2021
Computer hardware and software	\$ 262,203	\$ 248,754
Office furniture and equipment	1,113,980	1,185,329
	3,330,855	3,330,855
Leasehold improvements		
Property and equipment, gross	4,707,038	4,764,938
Less: accumulated depreciation	(3,093,223)	(2,372,242)
Property and equipment, net	\$ 1,613,815	\$ 2,392,696

Depreciation expense was approximately \$763,000 and \$1,000,000 for the years ended December 31, 2022 and 2021, respectively.

8.COMMITMENTS AND CONTINGENCIES

Operating Lease Commitment

On August 21, 2017, the Company entered into a lease agreement (“August 2017 Lease Agreement”) for commercial lease of office space, pursuant to which the Company agreed to lease 32,733 square feet of office space (“Leased Premises”). The initial term of the August 2017 Lease Agreement was for a period of seven years which began with the Company’s occupancy of the Leased Premises in February 2018. The base rent for the Leased Premises ranged from approximately \$470,000 for the first year to approximately \$908,000 for the seventh year. Per the terms of the August 2017 Lease Agreement, the landlord agreed to reimburse the Company for approximately \$1,080,000 of leasehold improvements. The reimbursements had been deferred and were to be recognized as a reduction of rent expense over the term of the lease. Additionally, the August 2017 Lease Agreement required a standby irrevocable letter of credit of \$400,000, which was to be reduced, if the Company is not in default under the August 2017 Lease Agreement, to \$300,000 and \$200,000 on the third and fourth anniversary of the commencement date, respectively. The Company entered into an unsecured letter of credit for \$400,000 in connection with the August 2017 Lease Agreement.

The Company adopted ASU 2016-02, *Leases (Topic 842)*, as amended (“ASU 2016-02”) using the effective date method as of January 1, 2019 and recorded a lease liability of approximately \$3,811,000, and a right-of-use asset of approximately \$2,400,000, with no operations adjustment to the accumulated deficit related to the Leased Premises. Operating leases are included in operating lease right-of-use assets (“ROU”), operating lease liabilities, current and operating lease liabilities, noncurrent in the Company’s consolidated balance sheets.

ROU assets represent the Company’s right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. ROU assets and liabilities are recognized at the date of adoption based on the present value of lease payments over the lease term. As the Company’s leases do not provide an implicit rate, the Company uses an incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments, which was 9%. This is the rate the Company would have to pay if borrowing on a collateralized basis over a similar term to each lease. The ROU asset also includes any lease payments made and excludes lease incentives. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

On February 26, 2019, the Company amended its lease (“February 2019 Lease Agreement”) pursuant to which an additional 30,023 square feet of office space (“New Premises”) will be leased by the Company in the same building for an aggregate total of 62,756 square feet of leased office space (“Total Premises”). The February 2019 Lease Agreement constitutes a modification as it extends the original lease term and increases the scope of the lease (additional space provided under the amendment), which requires evaluation of the remeasurement of the lease liability and corresponding ROU asset. Accordingly, the Company reassessed the classification of the Leased Premises and remeasured the lease liability on the basis of the extended lease term using the 20 additional monthly rent payments and the incremental borrowing rate at the effective date of the modification of 9%. The remeasurement for the modification resulted in an increase to the lease liability and the ROU asset of approximately \$855,000. The Company determined that the New Premises will be treated as a new standalone operating lease and recorded a lease liability and a right-of-use asset of approximately \$2,700,000 for this lease.

Per the terms of the February 2019 Lease Agreement, the landlord agreed to reimburse the Company for approximately \$991,000 of leasehold improvements. The reimbursements are being recognized as a reduction of rent expense over the term of the lease. Additionally, the February 2019 Lease Agreement required a standby irrevocable letter of credit of \$369,900, which may be reduced, if the Company is not in default under the February 2019 Lease Agreement, to \$277,425 and \$184,950 on the third and fourth anniversary of the commencement date, respectively.

On October 25, 2019, the Company amended its lease ("October 2019 Lease Amendment") pursuant to which the term of the lease was extended through November 30, 2026 and the existing office space under lease was expanded by 500 square feet for an aggregate total of 63,256 square feet of leased office space ("Amended Total Premises"). The October 2019 Lease Amendment constitutes a modification as it extends the original lease term and increases the scope of the lease (additional space provided under the amendment), which requires evaluation of the remeasurement of the lease liability and corresponding ROU asset. The additional space did not result in a separate contract as the rent increase was determined not to be commensurate with the standalone price for the additional right of use. Accordingly, the Company reassessed the classification of the Amended Total Premises, which resulted in operating classification, and remeasured the lease liability on the basis of the extended lease term using the additional monthly rent payments and the incremental borrowing rate at the effective date of the modification of 8%. The remeasurement for the modification resulted in an increase to the lease liability and the ROU asset of approximately \$381,000 that was recorded in the fourth quarter of 2019.

The following table contains a summary of the lease costs recognized under ASC 842 and other information pertaining to the Company's operating leases for the year ended December 31, 2022 and 2021:

	2022	2021
Lease cost		
Operating lease cost	\$ 1,240,473	\$ 1,240,473
Total lease cost	\$ 1,240,473	\$ 1,240,473
Other information		
Weighted average remaining lease term	3.8 years	4.8 years
Weighted average discount rate	8.00 %	8.00 %

Total rent expense for the years ended December 31, 2022 and 2021 was \$1,652,563 and \$1,185,341, respectively. Rent expense for the twelve months ended December 31, 2022 and 2021 was offset by \$220,531 and \$55,133, respectively, of sublease income.

Pursuant to the terms of the Company's non-cancelable lease agreements in effect at December 31, 2022, the following table summarizes the Company's maturities of operating lease liabilities as of December 31, 2022:

2023	\$1,700,005
2024	1,747,447
2025	1,794,889
2026	1,688,145
Total lease payments	\$6,930,486
Less: imputed interest	(974,269)
Total	\$5,956,217

Sublease Commitment

Effective August 26, 2021, the Company entered into a sublease agreement with a third party to sublease 12,112 square feet of the 30,023 square feet currently being leased under one of its two existing lease agreements. The sublease commences on October 1, 2021 and ends October 31, 2026. The Company notes sublease income of \$220,531 and \$55,133 was recognized and offset against rent expense for the years ended December 31, 2022 and 2021, respectively.

Undiscounted sublease cash inflows have been summarized in the following table:

2023	185,717
2024	278,576
2025	290,688
2026	252,333
Total sublease payments	<u>\$1,007,314</u>

For commitments under the Company's development award agreements refer to Note 11.

9. NOTES PAYABLE

D&O Financing

In November 2021, the Company entered into a loan agreement with a financing company for \$984,375 to finance one of the Company's insurance policies. The terms of the loan stipulate equal monthly payments of principal and interest payments of \$111,041 over a nine-month period. Interest accrues on this loan at an annual rate of 3.64%. This loan was fully repaid in July 2022.

In November 2022, the Company entered into a loan agreement with a financing company for \$452,250 to finance one of the Company's insurance policies. The terms of the loan stipulate equal monthly payments of principal and interest payments of \$51,387 over a nine-month period. Interest accrues on this loan at an annual rate of 5.4%. Prepaid expenses as of December 31, 2022, included approximately \$418,750 related to the underlying insurance policy being financed.

Loan and Security Agreement with K2 HealthVentures LLC

On July 28, 2020, the Company, with its subsidiary, Corbus Pharmaceuticals, Inc., as borrower, entered into a \$50,000,000 secured Loan and Security Agreement with K2HV, an unrelated third party (the "Loan and Security Agreement") and received the first \$20,000,000 tranche upon signing. The second tranche of \$20,000,000 and the third tranche of \$10,000,000 will be made available at the Company's option subject to the achievement of certain clinical and regulatory milestones. The loan matures on August 1, 2024 and the Company is obligated to make interest only payments for the first 24 months and then interest and equal principal payments for the next 24 months commencing on September 1, 2022. The Company entered into an Amendment to the Loan and Security Agreement (the "Amended Loan and Security Agreement") on October 25, 2022. The Amended Loan and Security Agreement defers the commencement of principal repayments by a one-year period from September 1, 2022 to September 1, 2023 and if the Company raises at least \$30 million in net proceeds through capital raising transactions, the commencement of principal repayments will be deferred by an additional six months to March 1, 2024. Interest accrues at a variable annual rate equal to the greater of (i) 8.5% and (ii) the rate of interest noted in The Wall Street Journal, Money Rates section, as the "Prime Rate" plus 5.25%, in each case, subject to a step-down of 25 basis points upon the funding of the second tranche. The interest rate used at December 31, 2022 was 12.75%.

In accordance with ASC Topic No. 470-50, "*Debt – Modifications and Extinguishments*" (Topic No. 470), the amendment noted above was determined to be a modification, thus no gain or loss was recorded.

Pursuant to the Loan and Security Agreement, the Lenders may jointly elect to convert up \$5,000,000 of the outstanding loan balance into shares of the Company's common stock at a conversion price of \$282.00 per share. The Amended Loan and Security Agreement adjusts the conversion price of \$2,000,000 of the maximum \$5,000,000 convertible amount by adjusting the conversion price of \$875,000 of the loan from \$282.00 per share to \$4.50 per share, and \$1,125,000 of the loan from \$282.00 per share to \$7.875 per share. The remaining \$3,000,000 will continue to have a conversion price of \$282.00 per share. The decrease in the conversion price resulted in an increase in the fair value of the conversion option of \$573,000, which was recorded as an increase to the debt discount and additional paid in capital.

In connection with the Loan and Security Agreement, on July 28, 2020, the Company issued the Lenders a warrant to purchase up to 2,874 common shares (the “K2 Warrant”) at an exercise price of \$208.80 (the “Warrant Price”). The K2 Warrant may be exercised either for cash or on a cashless “net exercise” basis and expires on July 28, 2030. The total proceeds attributed to the K2 Warrant was approximately \$472,000 based on the relative fair value of the K2 Warrant as compared to the sum of the fair values of the K2 Warrant, prepayment feature, default feature, and debt. Total proceeds attributed to the prepayment and default features was approximately \$546,000. The Company also incurred approximately \$1,244,000 of debt issuance costs from the Loan and Security Agreement. In connection with entering into the Amended Loan and Security Agreement, the Company incurred an additional \$119,000 of debt issuance costs. The proceeds attributed to the K2 Warrant, the prepayment and default features, and the debt issuance costs are all included in the debt discount. The Company is required to make a final payment in excess of the stated principal equal to approximately \$1,590,000. See Note 16 for more detail on assumptions used in the valuation of the K2 warrant and see Note 17 for more information on the assumptions used in valuation of the default and prepayment features.

The total principal amount of the loan under the Amended Loan and Security Agreement outstanding at December 31, 2022, including the \$1,590,000 final payment discussed above, is \$21,590,000.

Upon the occurrence of an Event of Default (as defined in the Loan and Security Agreement), and during the continuance of an Event of Default, the applicable rate of interest, described above, will be increased by 5.00% per annum. The secured term loan maturity date is August 1, 2024, and the Loan and Security Agreement includes both financial and non-financial covenants. The Company was in compliance with these covenants as of December 31, 2022. The obligations under the Loan and Security Agreement are secured on a senior basis by a lien on substantially all of the assets of the Company and its subsidiaries. The subsidiaries of the Company are guarantors of the obligations of the Company under the Loan and Security Agreement.

The total debt discount related to Lenders of approximately \$2,954,000 is being charged to interest expense using the effective interest method over the term of the debt. At December 31, 2022, the fair value of our outstanding debt, which is considered Level 3 in the fair value hierarchy, approximates carrying value. Interest expense for the year ended December 31, 2022 was approximately \$3,097,000. Interest expense for the year ended December 31, 2021 was approximately \$2,709,000.

The net carrying amounts of the liability components consists of the following:

	<u>December 31, 2022</u>	<u>December 31, 2021</u>
Principal	\$ 20,000,000	\$ 20,000,000
Less: debt discount	(2,954,390)	(2,262,388)
Accretion of debt discount	1,734,485	992,007
Net carrying amount	<u>\$ 18,780,095</u>	<u>\$ 18,729,619</u>
Less: current portion of long-term debt	<u>\$ (2,795,669)</u>	<u>\$ (3,093,344)</u>
Total long-term debt, net of discount	<u>\$ 15,984,426</u>	<u>\$ 15,636,275</u>

The following table summarizes the future principal payments due under long-term debt:

	<u>Principal Payments and final payment on Loan Agreement</u>
2023	\$2,977,268
2024	18,612,732
Total	<u>\$21,590,000</u>

10. ACCRUED EXPENSES

Accrued expenses consisted of the following:

	December 31, 2022	December 31, 2021
Accrued pre-clinical and clinical costs	\$ 2,137,317	\$ 5,435,464
Accrued product development costs	247,500	203,676
Accrued compensation	2,224,951	2,715,368
Accrued administrative costs	473,376	1,213,699
Accrued interest	916,108	525,105
Total	<u>\$ 5,999,252</u>	<u>\$ 10,093,312</u>

11. DEVELOPMENT AWARDS AND DEFERRED REVENUE

2018 CFF Award

On January 26, 2018, the Company entered into the Cystic Fibrosis Program Related Investment Agreement with the CFF (“Investment Agreement”), a non-profit drug discovery and development corporation, pursuant to which the Company received an award for up to \$25 million in funding (the “2018 CFF Award”) to support a Phase 2b Clinical Trial (the “Phase 2b Clinical Trial”) of lenabasum in patients with cystic fibrosis, of which the Company has received \$25 million in the aggregate through December 31, 2022 upon the Company’s achievement of milestones related to the progress of the Phase 2b Clinical Trial, as set forth in the Investment Agreement.

Pursuant to the terms of the Investment Agreement, the Company is obligated to make certain royalty payments to CFF, including a royalty payment of one and one-half times the amount of the 2018 CFF Award, payable in cash within sixty days upon the first receipt of approval of lenabasum in the United States and a second royalty payment of one and one-half times the amount of the 2018 CFF Award upon approval in another major market, as set forth in the Investment Agreement (the “Approval Royalty”). At the Company’s election, the Company may satisfy the first of the two Approval Royalties in registered shares of the Company’s common stock.

Additionally, the Company is obligated to make (i) royalty payments to CFF of two and one-half percent of net sales from lenabasum due within sixty days after any quarter in which such net sales occur in the Field, as defined in the Investment Agreement, (ii) royalty payments to CFF of one percent of net sales of Non-Field Products, as defined in the Investment Agreement due within sixty days after any quarter in which such net sales occur, and (iii) royalty payments to CFF of ten percent of any amount the Company and its stockholders receive in connection with the license, sale, or other transfer to a third party of lenabasum, if indicated for the treatment or prevention of CF, or a change of control transaction, except that such payment shall not exceed five times the amount of the 2018 CFF Award, with such payments to be credited against any other net sales royalty payments due. Accordingly, the Company will owe to CFF a royalty payment equal to 10% of any amounts the Company receives as payment under the collaboration agreement with Kaken, provided that the total royalties that the Company will be required to pay under the Investment Agreement resulting from income from licenses or sales subject to the Investment Agreement are capped at five times the total amount of the 2018 CFF Award, and the Company may credit such royalties against any royalties on net sales otherwise owed to CFF under the Investment Agreement. Accordingly, the Company was required to pay CFF \$2,700,000 in May 2019 as a result of its receipt of the \$27,000,000 upfront cash payment from Kaken.

Either CFF or the Company may terminate the Investment Agreement for cause, which includes the Company’s material failure to achieve certain commercialization and development milestones. The Company’s payment obligations survive the termination of the Investment Agreement.

Pursuant to the terms of the Investment Agreement, the Company issued a warrant to CFF to purchase an aggregate of 33,333 shares of the Company’s common stock (the “CFF Warrant”). The CFF Warrant is exercisable at a price equal to \$396 per share and is immediately exercisable for 16,667 shares of the Company’s common stock. Upon completion of the final milestone set forth in the Investment Agreement and receipt of the final payment from CFF to the Company pursuant to the Investment Agreement, the CFF Warrant will be exercisable for the remaining 16,667 shares of the Company’s common stock. The CFF Warrant expires on January 26, 2025. Any shares of the Company’s common stock issued upon exercise of the CFF Warrant will be unregistered and subject to a one-year lock-up.

Under the Investment Agreement, the Company recorded \$0 and \$881,705 of revenue during the years ended December 31, 2022 and 2021, respectively. The Company assessed the 2018 CFF Award for accounting under ASC 606, which it adopted in the first quarter of 2018. To determine revenue recognition for arrangements that an entity determines are within the scope of ASC 606, the entity performs the following five steps: (i) identify the contract(s) with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when (or as) the entity satisfies a performance obligation.

The Company assessed this arrangement in accordance with ASC 606 and concluded that the contract counterparty, CFF, is a customer. The Company identified the following material promise under the arrangement: research and development activities and related services under the Phase 2b Clinical Trial. Based on these assessments, the Company identified one performance obligation at the outset of the Investment Agreement, which consists of: Phase 2b Clinical Trial research and development activities and related services.

To determine the transaction price, the Company included the total aggregate payments under the Investment Agreement which amount to \$25 million and reduced the revenue to be recognized by the payment to the customer of \$6,215,225 in the form of the CFF Warrant representing its fair value, leaving the remaining \$18,784,775 as the transaction price as of the outset of the arrangement, which was recognized as revenue over the performance period as discussed below. The \$6,215,225 fair value of the warrant was also recorded as an increase to additional paid in capital.

The Company has invoiced and received \$25,000,000 in milestone payments, including \$12,500,000 in 2018, \$5,000,000 in 2019, \$5,000,000 in 2020, and \$2,500,000 in 2021. The Company notes there are no further development milestones under this agreement.

The CFF Warrant is accounted for as a payment to the customer. See Note 16 for further information related to the CFF Warrant. The Company notes that the Investment Agreement contains an initial payment that was received upon contract execution and subsequent milestone payments, which are a form of variable consideration that require evaluation for constraint considerations. The Company concluded that the related performance milestones are generally within the Company's control and as result are considered probable. Revenue associated with the performance obligation is being recognized as revenue as the research and development services are provided using an input method, according to the costs incurred as related to the research and development activities on each program and the costs expected to be incurred in the future to satisfy the performance obligation. The transfer of control occurs over this time period and, in management's judgment, is the best measure of progress towards satisfying the performance obligation. The research and development services related to this performance obligation were performed over an approximately three-year period and were completed as of December 31, 2021. The amounts recognized as revenue, but not received or invoiced were recognized as a contract asset on the Company's consolidated balance sheet.

12. INCOME TAXES

No provision or benefit for federal or state income taxes has been recorded, as the Company has incurred a net loss for all of the periods presented, and the Company has provided a full valuation allowance against its deferred tax assets.

The components of the Company's net loss are as follows:

	December 31,	
	2022	2021
United States	\$(34,842,427)	\$(48,713,664)
United Kingdom	(7,550,356)	3,016,100
Australia	45,880	57,138
Total	<u>\$(42,346,903)</u>	<u>\$(45,640,426)</u>

At December 31, 2022 and 2021, the Company had federal net operating loss carryforwards of approximately \$197,846,000 and \$186,267,000 respectively, of which federal carryforwards will expire in varying amounts beginning in 2029. Of the federal net operating loss carryforwards of \$197,846,000, approximately \$141,494,000 are from periods after 2017 and have no expiration date. Net operating loss carryforwards starting in 2021 are limited to 80% of taxable income. At December 31, 2022 and 2021, the Company had State net operating loss carryforwards of approximately \$188,273,000 and \$177,171,000, respectively. Utilization of net operating losses may be subject to substantial annual limitations due to the "change in ownership" provisions of the Internal Revenue Code, and similar state provisions. The annual limitations may result in the expiration of net operating losses before utilization. The Company has not yet conducted a study to determine if any such changes have occurred that could limit the Company's ability to use the net operating losses and tax credit carryforwards. The Company also had research and development tax credit carryforwards at December 31, 2022 and 2021 of approximately \$9,376,000 and \$8,656,000, respectively, of which will begin to expire in varying amounts beginning in 2033.

Significant components of the Company's net deferred tax asset are as follows:

	December 31,	
	2022	2021
U.S. and state net operating loss carryforwards	\$ 53,438,141	\$ 50,311,967
Foreign net operating loss carryforwards	7,267,176	5,846,372
Tax credit carryforward	9,132,973	8,392,989
Stock based compensation	8,661,477	9,102,630
Capitalized research and development	3,925,743	-
Accrued expenses	503,124	559,876
Other temporary differences	1,202,364	1,284,347
Subtotal	84,130,998	75,498,181
Valuation allowance	(84,130,998)	(75,498,181)
Net deferred tax asset	<u>\$ —</u>	<u>\$ —</u>

The Tax Cuts and Jobs Act ("TCJA") requires taxpayers to capitalize and amortize research and development ("R&D") expenditures under section 174 for tax years beginning after December 31, 2021. This rule became effective for us during 2022 and resulted in capitalized R&D costs of \$14,523,000 as of December 31, 2022. We will amortize these costs for tax purposes over 5 years for R&D performed in the U.S. and over 15 years for R&D performed outside the U.S.

The Company has maintained a full valuation allowance against its deferred tax assets in all periods presented. A valuation allowance is required to be recorded when it is not more likely than not that some portion or all the net deferred tax assets will be realized. Since the Company cannot determine that it is more likely than not that it will generate taxable income, and thereby realize the net deferred tax assets, a full valuation allowance has been provided. The valuation allowance increased by \$8,633,000 and \$1,052,000 in 2022 and 2021, respectively, due to increased net operating loss carryforwards and increased capitalization of R&D expenditures in 2022 as required by changes to the tax laws from the TCJA as described above. The Company has no uncertain tax positions at December 31, 2022 and 2021 that would affect its effective tax rate. Since the Company is in a loss carryforward position, the Company is generally subject to U.S. federal and state income tax examinations by tax authorities for all years for which a loss carryforward is available.

Income tax benefits computed using the federal statutory income tax rate differs from the Company's effective tax rate primarily due to the following:

	December 31,	
	2022	2021
Tax provision at statutory rate	21.00 %	21.00 %
State income tax, net of federal benefit	5.53 %	4.98 %
Permanent differences	(1.72)%	(3.56)%
Foreign expected tax	4.08 %	(1.21)%
Tax credits	1.87 %	2.62 %
Income tax rate change	—	(0.20)%
NOL Adjustments	—	(4.10)%
Other	(5.99)%	(17.37)%
Change in valuation reserve	(24.77)%	(2.16)%
Total	— %	— %

13.PREFERRED STOCK

The Company has authorized 10,000,000 shares of preferred stock, \$0.0001 par value per share, of which 0 shares were issued and outstanding as of December 31, 2022 and 2021.

On October 12, 2022, the Board of Directors (the "Board"), declared a dividend of 0.008 of a share of Series A Preferred Stock ("Series A Preferred Stock"), for each outstanding share of Common Stock to stockholders of record at 5:00pm Eastern Time on October 22, 2022. The Certificate of Designation of Series A Preferred Stock was filed with the Delaware Secretary of State and became effective on October 12, 2022. The dividend was based on the number of outstanding shares of common stock prior to the Reverse Stock Split. This resulted in 1,002,247.048 shares of preferred stock being issued. The outstanding shares of Series A Preferred Stock were entitled to vote together with the outstanding shares of common stock as a single class exclusively with respect to any proposal to adopt an amendment to the Company's Amended and Restated Certificate of Incorporation, as amended (the "Certificate of Incorporation"), to reclassify the outstanding shares of Common Stock into a smaller number of shares of Common Stock at a ratio specified in or determined in accordance with the terms of such amendment (the "Reverse Stock Split"), as well as any proposal to adjourn any meeting of stockholders called for the purpose of voting on the Reverse Stock Split Proposal (the "Adjournment Proposal").

The Company held a special meeting of stockholders on December 20, 2022 (the "Special Meeting") for the purpose of voting on the Reverse Stock Split and an Adjournment Proposal. All shares of Series A Preferred Stock that were not present in person or by proxy at the Special Meeting, which totaled 500,894.04 shares, were automatically redeemed by the Company immediately prior to the opening of the polls at Special Meeting (the "Initial Redemption"). All shares that were not redeemed pursuant to the Initial Redemption would be redeemed if ordered by the Board or automatically upon the effectiveness of the amendment to the Certificate of Incorporation implementing the Reverse Stock Split (the "Subsequent Redemption" and together with the Initial Redemption, the "Redemption"). Each share of Series A Preferred Stock is entitled to receive \$0.001 in cash for each 10 whole shares of Series A Preferred Stock immediately prior to the Redemption.

At the Special Meeting, both the Reverse Stock Split and Adjournment Proposal were approved.

Upon issuance of the Series A Preferred Stock, the Company was not solely in control of the Redemption of the shares of Series A Preferred Stock since the holders had the option of deciding whether to attend or return a proxy card for the Special Meeting, which determined whether a given holder's shares of Series A Preferred Stock were redeemed in the Initial Redemption. Since the Redemption of the Series A Preferred Stock was not solely in the control of the Company, the shares of Series A Preferred Stock are classified within mezzanine equity. The shares of Series A Preferred Stock were initially recorded at redemption value, which approximated fair value.

After the Special Meeting upon approval of the Reverse Stock Split, the remaining 501,353.008 shares outstanding of Series A Preferred Stock would be considered mandatorily redeemable and reclassified to a current liability. As of December 31, 2022, the fair value of the Series A Preferred Stock were included in accrued expenses. As of December 31, 2022, there were 0 shares of Series A Preferred Stock issued and outstanding within the consolidated balance sheet, however, the Series A Preferred Stock were redeemed on February 14, 2023, upon the effectiveness of the amendment to the Certificate of Incorporation implementing the Reverse Stock Split pursuant to the terms of the Certificate of Designation of the Series A Preferred Stock.

14.COMMON STOCK

On February 14, 2023, the Company completed a 1-for-30 reverse split of its outstanding common stock. The Reverse Split did not change the number of authorized shares of common stock or par value. All references in these consolidated financial statements to shares, share prices, exercise prices, and other per share information in all periods have been adjusted, on a retroactive basis, to reflect the split.

The Company has authorized 300,000,000 shares of common stock, \$0.0001 par value per share, of which 4,171,297 shares were issued and outstanding as of December 31, 2022. The Company had 300,000,000 shares authorized, and 4,169,631 shares were issued and outstanding as of December 31, 2021.

On August 7, 2020, the Company entered into the August 2020 Sale Agreement with Jefferies pursuant to which Jefferies is serving as the Company's sales agent to sell shares of the Company's common stock through an "at the market offering." As of August 7, 2020, the company was authorized to sell up to \$150,000,000 of shares of the Company's common stock pursuant to the August 2020 Sale Agreement. During the year ended December 31, 2022, the Company did not sell any shares of its common stock under the August 2020 Sale Agreement. During the year ended December 31, 2021, the Company sold 846,390 shares of its common stock under the August 2020 Sale Agreement for which the Company received gross proceeds of approximately \$60,681,000, less issuance costs incurred of approximately \$1,820,437 through December 31, 2021. During the year ended December 31, 2020, the Company sold 518,205 shares of its common stock under the August 2020 Sale Agreement for which the Company received gross proceeds of approximately \$21,404,000, less issuance costs incurred of approximately \$642,000 through December 31, 2020.

During the year ended December 31, 2021, the Company issued 27,953 shares of common stock upon the exercise of stock options to purchase common stock and the Company received proceeds of approximately \$945,000 from these exercises, respectively.

During the year ended December 31, 2022, the Company issued 1,666 shares of restricted common stock pursuant to a professional services agreement with an investor relations service provider.

During the year ended December 31, 2021, the Company issued 4,929 shares of restricted common stock pursuant to the Milky Way License Agreement.

No warrants were exercised during the years ended December 31, 2022 and 2021.

15. STOCK OPTIONS

In April 2014, the Company adopted the Corbus Pharmaceuticals Holdings, Inc. 2014 Equity Incentive Plan (the "2014 Plan"). Pursuant to the 2014 Plan, the Company's Board of Directors may grant incentive and nonqualified stock options and restricted stock to employees, officers, directors, consultants, and advisors.

Pursuant to the terms of an annual evergreen provision in the 2014 Plan, the number of shares of common stock available for issuance under the 2014 Plan shall automatically increase on January 1 of each year by at least seven percent (7%) of the total number of shares of common stock outstanding on December 31st of the preceding calendar year, or, pursuant to the terms of the 2014 Plan, in any year, the Board of Directors may determine that such increase will provide for a lesser number of shares.

On January 1, 2022, pursuant to an annual evergreen provision contained in the 2014 Plan, the number of shares reserved for future grants was increased by 292,205 shares, which was seven percent (7%) of the outstanding shares of common stock on December 31, 2021. As of January 1, 2022 there was a total of 1,144,567 shares reserved for issuance under the 2014 Plan and there were 558,671 shares available for future grants. Options issued under the 2014 Plan generally vest over 4 years from the date of grant in multiple tranches and are exercisable for up to 10 years from the date of issuance.

In accordance with the terms of the 2014 Plan, effective as of January 1, 2023, the number of shares of common stock available for issuance under the 2014 Plan increased by 291,991 shares, such amount being seven percent (7%) of the outstanding shares of common stock on December 31, 2022 (see Note 18). As of January 1, 2023, the 2014 Plan had a total reserve of 1,436,558 shares and there were 741,870 shares available for future grants.

Share-based Compensation

For stock options issued and outstanding for the years ended December 31, 2022 and 2021, the Company recorded non-cash, stock-based compensation expense of \$5,719,637 and \$9,480,373, respectively, net of estimated forfeitures.

	Twelve Months Ended December 31,	
	2022	2021
Research and development expenses	\$577,472	\$2,969,347
General and administrative expenses	5,142,165	6,511,026
Total stock-based compensation	<u>\$5,719,637</u>	<u>\$9,480,373</u>

The fair value of each option award for employees and non-employees is estimated on the date of grant using the Black-Scholes option pricing model that uses the assumptions noted in the following table, except for the expected term for non-employees as noted in the following. The Company uses historical data, as well as subsequent events occurring prior to the issuance of the financial statements, to estimate option exercises and employee terminations in order to estimate its forfeiture rate. The expected term of options granted under the 2014 Plan, all of which qualify as “plain vanilla” per SEC Staff Accounting Bulletin 107, is determined based on the simplified method due to the Company’s limited operating history and is 6.25 years based on the average between the vesting period and the contractual life of the option. For non-employee options, the expected term is the contractual term. The risk-free rate is based on the yield of a U.S. Treasury security with a term consistent with the option.

The weighted average assumptions used principally in determining the fair value of options granted were as follows:

	Twelve Months Ended December 31,	
	2022	2021
Risk free interest rate	1.99 %	0.76 %
Expected dividend yield	0 %	0 %
Expected term in years	6.25	6.23
Expected volatility	98.08 %	102.96 %
Estimated forfeiture rate	12.43 %	9.12 %

A summary of option activity for years ended December 31, 2022 and 2021 is presented below:

Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term in Years	Intrinsic Value
Outstanding at December 31, 2020	476,321	154.50		
Granted	245,793	70.80		
Exercised	(27,953)	33.90		
Forfeited or canceled	(182,655)	151.20		
Expired	(636)	209.10		
Outstanding at December 31, 2021	510,870	\$ 121.90		
Granted	185,169	12.90		
Exercised	—	—		
Forfeited or canceled	(56,019)	107.13		
Expired	(22,024)	166.53		
Outstanding at December 31, 2022	<u>617,996</u>	<u>\$ 88.99</u>	<u>6.78</u>	<u>\$ 11,195,964</u>
Exercisable at December 31, 2022	<u>358,611</u>	<u>\$ 125.97</u>	<u>5.37</u>	<u>\$ 3,177,014</u>
Vested and expected to vest at December 31, 2022	<u>584,143</u>	<u>\$ 92.55</u>	<u>6.66</u>	<u>\$ 9,969,530</u>

The weighted average grant-date fair value of options granted during the years ended December 31, 2022 and 2021 was \$10.20 and \$57.30 per share, respectively. The aggregate intrinsic value of options exercised during the years ended December 31, 2022 and 2021 was approximately \$0 and \$1,769,714, respectively. As of December 31, 2022, there was approximately \$6,302,350 of total unrecognized compensation expense, related to non-vested share-based compensation arrangements. The unrecognized compensation expense is estimated to be recognized over a period of 2.05 years at December 31, 2022.

As summary of non-vested stock options for the years ended December 31, 2022 and 2021 is presented below:

Options	Shares	Weighted Average Fair Value
Non-vested December 31, 2020	144,576	\$ 124.20
Granted	245,793	57.30
Vested	(74,731)	120.60
Forfeited	(105,135)	84.00
Non-vested at December 31, 2021	<u>210,503</u>	<u>\$ 67.80</u>
Granted	185,169	10.19
Vested	(107,269)	67.54
Forfeited	(29,019)	43.06
Non-vested at December 31, 2022	<u>259,384</u>	<u>\$ 29.59</u>

16. WARRANTS

No warrants were exercised during the years ended December 31, 2022 and 2021.

At December 31, 2022, there were warrants outstanding to purchase 50,207 shares of common stock with a weighted average exercise price of \$283.81 and a weighted average remaining life of 2.60 years.

The Company issued a warrant to CFF to purchase an aggregate of 33,334 shares of the Company's common stock (the "CFF Warrant"). The CFF Warrant is exercisable at a price equal to \$396 per share and is immediately exercisable for 16,667 shares of the Company's common stock. Upon completion of the final milestone set forth in the Investment Agreement and receipt of the final payment from CFF to the Company pursuant to the Investment Agreement, the CFF Warrant will be exercisable for the remaining 16,667 shares of the Company's common stock. The CFF Warrant expires on January 26, 2025. Any shares of the Company's common stock issued upon exercise of the CFF Warrant will be unregistered and subject to a one-year lock-up. The CFF Warrant is classified as equity as it meets all the conditions under U.S. GAAP for equity classification. In accordance with U.S. GAAP, the Company has calculated the fair value of the warrant for initial measurement and will reassess whether equity classification for the warrant is appropriate upon any changes to the warrants or capital structure, at each balance sheet date. The weighted average assumptions used in determining the \$6,215,225 fair value of the CFF Warrant were as follows:

Risk free interest rate	2.60%
Expected dividend yield	—%
Expected term in years	7.00
Expected volatility	83.5%

On July 28, 2020, the Company entered into the Loan and Security Agreement with K2HV pursuant to which K2HV may provide the Company with term loans in an aggregate principal amount of up to \$50,000,000. On July 28, 2020, in connection with the funding of the first \$20,000,000 tranche, the Company issued a warrant exercisable for 2,874 shares of the Company's common stock (the "K2 Warrant") at an exercise price of \$208.80 per share. The K2 warrant is immediately exercisable for 2,874 shares and expires on July 28, 2030. Any shares of the Company's common stock issued upon exercise of the K2 Warrant are permitted to be settled in unregistered shares. The K2 Warrant is classified as equity as it meets all the conditions under U.S. GAAP for equity classification. In accordance with U.S. GAAP, the Company has calculated the fair value of the warrant for initial measurement and will reassess whether equity classification for the warrant is appropriate upon any changes to the warrants or capital structure, at each balance sheet date. The weighted average assumptions used in determining the \$472,409 fair value of the K2 Warrant were as follows:

Risk free interest rate	0.60%
Expected dividend yield	—%
Expected term in years	10.00
Expected volatility	80.0%

On October 16, 2020, the Company entered into a professional services agreement with an investor relations service provider. Pursuant to the agreement, the Company issued warrants exercisable for a total of 14,000 shares of the Company's common stock (the "Warrants") at an exercise price of \$32.10 per share. The Warrants were fully vested on October 19, 2021. Any shares of the Company's common stock issued upon exercise of the Warrants are permitted to be settled in unregistered shares. The Warrants are classified as equity as they meet all the conditions under U.S. GAAP for equity classification. In accordance with U.S. GAAP, the Company has calculated the fair value of the warrants for initial measurement and will reassess whether classification for the warrant is appropriate upon any changes to the warrants or capital structure, at each balance sheet date. The weighted average assumptions used in determining the \$334,740 fair value of the Warrants were as follows:

Risk free interest rate	0.90%
Expected dividend yield	—%
Expected term in years	5.00
Expected volatility	100.6%

17. DERIVATIVE LIABILITY

On July 28, 2020, the Company, with its subsidiary, Corbus Pharmaceuticals, Inc., as borrower, entered into a \$50,000,000 secured Loan and Security Agreement with K2HV, an unrelated third party (the "Loan and Security Agreement") and received the first \$20,000,000 tranche upon signing. The Company has determined that a prepayment feature and default feature needed to be separately valued and mark to market each reporting period after assessing the agreement under ASC 815.

The value of these features is determined each reporting period by taking the present value of net cash flows with and without the prepayment features. The significant assumption used to determine the fair value of the debt without any features is the discount rate which has been estimated by using published market rates of triple CCC rated public companies. All other inputs are taken from the Loan and Security Agreement. The additional significant assumptions used when valuing the prepayment feature is the probability of a change of control event. The Company has determined the probability from December 31, 2020 to December 31, 2022 has stayed consistent. The additional significant assumption used when valuing the default feature is the probability of defaulting on the repayment of loan. The Company has determined the probability from December 31, 2021 to December 31, 2022 has remained consistent. The value of these features was determined to be approximately \$133,710 at December 31, 2021 and \$36,868 at December 31, 2022 which resulted in \$96,842 of other income in 2022. The Company considers the fair value of the derivative liability to be Level 3 under the three-tier fair value hierarchy.

A roll forward of the fair value of the derivative liability for the year ended December 31, 2022 is presented below.

	<u>December 31, 2022</u>
Beginning balance, December 31, 2021	\$133,710
Change in fair value of derivative liabilities	(96,842)
Ending balance, December 31, 2022	<u>\$36,868</u>

18. SUBSEQUENT EVENTS

Evergreen Provision

Pursuant to the terms of an annual evergreen provision in the 2014 Plan, the number of shares of common stock available for issuance under the 2014 Plan shall automatically increase on January 1 of each year by at least seven percent (7%) of the total number of shares of common stock outstanding on December 31st of the preceding calendar year, or, pursuant to the terms of the 2014 Plan, in any year, the Board of Directors may determine that such increase will provide for a lesser number of shares. In accordance with the terms of the 2014 Plan, effective as of January 1, 2023, the number of shares of common stock available for issuance under the 2014 Plan increased by 291,991 shares, such amount being seven percent (7%) of the outstanding shares of common stock on December 31, 2022. As of January 1, 2023, the 2014 Plan had a total reserve of 1,436,558 shares and there were 741,870 shares available for future grants.

Reverse Stock Split

At the 2022 Special Meeting on December 20, 2022, the Company's stockholders granted the Company's Board of Directors the discretion to effect a reverse stock split of the Company's its issued and outstanding common stock through an amendment to its Certificate of Incorporation, as amended and restated to date, at a ratio of not less than 1-for-4 and not more than 1-for-40, such ratio to be determined by the Board. On February 9, 2023, the Board of Directors approved a 1-for-30 reverse stock split, and the Company filed the Amendment for the Reverse Stock Split with the Secretary of State of the State of Delaware. The Reverse Stock Split became effective in accordance with the terms of the Amendment on February 14, 2023. The Amendment did not change the number of authorized shares of common stock or the par value.

CSPC License Agreement

On February 12, 2023, the Company entered into an Exclusive License Agreement with CSPC Megalith Biopharmaceutical Co., Ltd. ("CSPC"), pursuant to which the Company received an exclusive license to obtain certain exclusive rights to develop and commercialize CRB-701 (SYS6002), a novel clinical stage antibody drug conjugate targeting Nectin-4. The License Agreement covers exclusive commercialization rights to CRB-701 in the United States, Canada, the European Union (including the European Free Trade Area), the United Kingdom, and Australia.

The Company will pay CSPC an upfront payment of \$7.5 million (\$5.0 million at signing followed by a \$2.5 million payment after eighteen months). CSPC will also be eligible to receive low double-digit royalties on net sales and up to \$130 million in potential development and regulatory milestone payments and \$555 million in potential commercial milestone payments.

State of Delaware
Secretary of State
Division of Corporations
Delivered 04:43 PM 05/25/2017
FILED 04:43 PM 05/25/2017
SR 20174095069 - File Number 5451915

AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF

CORBUS PHARMACEUTICALS HOLDINGS, INC.

Corbus Pharmaceuticals Holdings, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "DGCL"),

DOES HEREBY CERTIFY:

FIRST: That the name of this corporation is Corbus Pharmaceuticals Holdings, Inc. and that this corporation was originally incorporated pursuant to the DGCL on December 18, 2013, under the name SAV Acquisition Corporation.

SECOND: That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, as amended, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefore, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation, as amended, be amended and restated in its entirety as follows:

ARTICLE I

The name of the Corporation is Corbus Pharmaceuticals Holdings, Inc.

ARTICLE II

The address of the Corporation's registered office in the State of Delaware is 850 New Burton Road, Suite 201, Dover, DE 19904, Kent County; and the name of the registered agent of the Corporation in the State of Delaware at such address is Cogency Global Inc. The Corporation shall have the authority to designate other registered offices and registered agents both in the State of Delaware and in other jurisdictions.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

ARTICLE IV

A. CAPITAL STOCK

The total number of shares of capital stock which the Corporation shall have authority to issue is One Hundred Sixty Million (160,000,000), of which (i) One Hundred Fifty Million

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(150,000,000) shares shall be a class designated as common stock, par value \$0.0001 per share (the "Common Stock"), and (ii) Ten Million Shares (10,000,000) shares shall be a class designated as preferred stock, par value \$0.0001 per share (the "Preferred Stock").

The number of authorized shares of Common Stock or Preferred Stock may from time to time be increased or decreased (but not below the number of shares then outstanding) by the affirmative vote of the holders of a majority in voting power of the outstanding shares of stock of the Corporation entitled to vote thereon irrespective of the provisions of Section 242(b)(2) of the DGCL (or any successor provision thereto), and no vote of the holders of any of the Common Stock or the Preferred Stock voting separately as a class shall be required therefor, unless a vote of any such holder is required pursuant to this Certificate (including pursuant to any certificate of designation of any series of Preferred Stock).

The powers, preferences and rights of, and the qualifications, limitations and restrictions upon, each class or series of stock shall be determined in accordance with, or as set forth below in, this Article IV.

B. COMMON STOCK

1. Voting. Each holder of record of Common Stock, as such, shall have one vote for each share of Common Stock which is outstanding in his, her or its name on the books of the Corporation on all matters on which stockholders are entitled to vote generally. Except as otherwise required by law, holders of Common Stock shall not be entitled to vote on any amendment to this Certificate (including any certificate of designation relating to any series of Preferred Stock) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Certificate (including any certificate of designation relating to any series of Preferred Stock) or pursuant to the DGCL.

2. Dividends. Subject to applicable law and the rights, if any, of the holders of any outstanding series of Preferred Stock or any class or series of stock having a preference over or the right to participate with the Common Stock with respect to the payment of dividends, dividends may be declared and paid or set apart for payment upon the Common Stock out of any assets or funds of the Corporation legally available for the payment of dividends, but only when and as declared by the Board of Directors or any authorized committee thereof.

3. Liquidation. Upon the dissolution, liquidation or winding up of the Corporation, after payment or provision for payment of the debts and other liabilities of the Corporation and subject to the rights, if any, of the holders of any outstanding series of Preferred Stock or any class or series of stock having a preference over or the right to participate with the Common Stock with respect to the distribution of assets of the Corporation upon such dissolution, liquidation or winding up of the Corporation, the holders of Common Stock shall be entitled to receive the remaining assets of the Corporation available for distribution to its stockholders ratably in proportion to the number of shares held by them.

C. PREFERRED STOCK

The Board of Directors is hereby expressly authorized, by resolution or resolutions, to provide, out of the authorized, unissued shares of Preferred Stock, for one or more series of Preferred Stock and, with respect to each such series, to fix the number of shares constituting such series and the designation of such series, and the powers (including voting powers, if any), preferences and relative, participating, optional and other special rights, if any, and *any* qualifications, limitations or restrictions thereof, of the shares of such series of Preferred Stock. The powers, preferences and relative, participating, optional and other special rights of, and the qualifications, limitations or restrictions thereof, of each series of Preferred Stock, if any, may differ from those of any and all other series at any time outstanding. Except as otherwise required by law, holders of any series of Preferred Stock shall be entitled to only such voting rights, if any, as shall expressly be granted thereto by this Certificate (including any certificate of designation relating to such series of Preferred Stock).

ARTICLE V

STOCKHOLDER ACTION

1. Written Consent of Stockholders in Lieu of Meeting. Subject to the rights, if any, of the holders of any series of Preferred Stock, no action that is required or permitted to be taken by the stockholders of the Corporation at any annual or special meeting of stockholders may be effected by written consent of stockholders in lieu of a meeting of stockholders.

2. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the Board of Directors to be held at such date, time and place either within or without the State of Delaware as may be stated in the notice of the meeting.

ARTICLE VI

DIRECTORS

1. General. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors except as otherwise provided herein or required by law.

2. Election of Directors. Election of Directors need not be by written ballot unless the Bylaws of the Corporation (the "Bylaws") shall so provide.

3. Number of Directors; Term of Office. Except as otherwise provided for or fixed pursuant to the provisions of Article IV of this Certificate (including any certificate of designation of any series of Preferred Stock) and this Article VI relating to the rights of the holders of any series of Preferred Stock to elect additional directors, the number of Directors of the Corporation shall be fixed solely and exclusively by resolution duly adopted from time to time by the Board of Directors. The Directors, other than those who may be elected by the holders of any series of Preferred Stock, shall be elected at each annual meeting of stockholders

for a term of one year. Each Director shall serve until his successor is duly elected and qualified or until his death, resignation or removal. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent Director.

During any period when the holders of any series of Preferred Stock have the right to elect additional Directors, then upon commencement and for the duration of the period during which such right continues: (i) the then otherwise total authorized number of Directors shall automatically be increased by such specified number of Directors, and the holders of such Preferred Stock shall be entitled to elect the additional Directors so provided for or fixed pursuant to said provisions, and (ii) each such additional Director shall serve until such Director's successor shall have been duly elected and qualified, or until such Director's right to hold such office terminates pursuant to said provisions, whichever occurs earlier, subject to his or her earlier death, resignation, retirement, disqualification or removal. Except as otherwise provided by the Board of Directors in the resolution or resolutions establishing such series, whenever the holders of any series of Preferred Stock having such right to elect additional Directors are divested of such right pursuant to the provisions of such stock, the terms of office of all such additional Directors elected by the holders of such stock, or elected to fill any vacancies resulting from the death, resignation, disqualification or removal of such additional Directors, shall forthwith terminate and the total authorized number of directors of the Corporation shall be reduced accordingly.

4. Vacancies. Subject to the rights, if any, of the holders of any series of Preferred Stock to elect Directors and to fill vacancies in the Board of Directors relating thereto, any and all vacancies in the Board of Directors, however occurring, including, without limitation, by reason of an increase in size of the Board of Directors, or the death, resignation, disqualification or removal of a Director, shall be filled solely and exclusively by the affirmative vote of a majority of the remaining Directors then in office, even if less than a quorum of the Board of Directors, and not by the stockholders. Any Director elected in accordance with the preceding sentence shall hold office for the remainder of the full term of the Director for which the vacancy was created or occurred and until such Director's successor shall have been duly elected and qualified or until his or her earlier resignation, death or removal.

5. Removal. Subject to the rights, if any, of any series of Preferred Stock to elect Directors and to remove any Director whom the holders of any such stock have the right to elect, any Director (including persons elected by Directors to fill vacancies in the Board of Directors) may be removed from office (i) with cause or without cause and (ii) only by the affirmative vote of the holders of at least a majority in voting power of the shares then entitled to vote at an election of Directors.

ARTICLE VII

LIMITATION OF LIABILITY

A Director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a Director, except for liability (i) for any breach of the Director's duty of loyalty to the Corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing

violation of law, (iii) under Section 174 of the DGCL or (iv) for any transaction from which the Director derived an improper personal benefit. If the DGCL is amended after the effective date of this Certificate to authorize corporate action further eliminating or limiting the personal liability of Directors, then the liability of a Director of the Corporation shall be eliminated or limited to the fullest extent permitted by the DGCL, as so amended.

Any repeal or modification of this Article VII, shall not adversely affect any right or protection existing at the time of such repeal or modification with respect to any acts or omissions occurring before such repeal or modification of a person serving as a Director at the time of such repeal or modification.

ARTICLE VIII

AMENDMENT OF BYLAWS

1. Amendment by Directors. Except as otherwise provided by law, the Bylaws of the Corporation may be amended or repealed by the Board of Directors by the affirmative vote of a majority of the Board.

2. Amendment by Stockholders. The Bylaws of the Corporation may be amended or repealed by the stockholders at any annual meeting of stockholders, or special meeting of stockholders called for such purpose as provided in the Bylaws, by the affirmative vote of the holders of at least a majority in voting power of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class.

ARTICLE IX

AMENDMENT OF CERTIFICATE OF INCORPORATION

The Corporation reserves the right to amend or repeal this Certificate in the manner now or hereafter prescribed by statute and this Certificate, and all rights conferred upon stockholders herein are granted subject to this reservation. In addition to any other vote required by law or this Certificate, the affirmative vote of the holders of at least a majority in voting power of the outstanding shares entitled to vote on such amendment or repeal, shall be required to amend or repeal any provision of Article V, Article VI, Article VII, Article VIII or Article IX of this Certificate.

ARTICLE X

EXCLUSIVE JURISDICTION

Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Corporation; (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, creditors or other constituents; (iii) any action asserting a claim against the Corporation or any Director or officer of the Corporation arising pursuant to, or a claim against

the Corporation or any Director or officer of the Corporation with respect to the interpretation or application of any provision of, the DGCL, this Certificate or the Bylaws of the Corporation; or (iv) any action asserting a claim governed by the internal affairs doctrine in each such case subject to said court having personal jurisdiction over the indispensable parties named as defendants therein; provided, that, if and only if the Court of Chancery of the State of Delaware dismisses any such action for lack of subject matter jurisdiction, such action may be brought in another state court sitting in the State of Delaware. To the fullest extent permitted by law, any person or entity purchasing or otherwise acquiring any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Article X.

THIRD: The foregoing amendment and restatement was approved by the holders of the requisite number of shares of said corporation in accordance with Section 228 of the DGCL.

FOURTH: That said Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this corporation's Certificate of Incorporation, as amended, has been duly adopted in accordance with Sections 242 and 245 of the DGCL.

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 25th day of May, 2017.

/s/ Yuval Cohen

Name: Yuval Cohen, Ph.D.

Title: Chief Executive Officer

**CERTIFICATE OF AMENDMENT OF THE
CERTIFICATE OF INCORPORATION OF
CORBUS PHARMACEUTICALS HOLDINGS, INC.
A Delaware Corporation**

Pursuant to Section 242 of the General Corporation Law of the State of Delaware, Corbus Pharmaceuticals Holdings, Inc., a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), does hereby certify as follows:

1. The name of the Corporation is Corbus Pharmaceuticals Holdings, Inc. The Corporation was incorporated by the filing of its original Certificate of Incorporation with the Secretary of State of the State of Delaware on December 18, 2013 (the "Certificate of Incorporation").
2. The Certificate of Incorporation of the Corporation is hereby amended to increase the authorized shares of the Corporation's common stock by deleting the first paragraph under Section A of Article IV, and replacing such paragraph with the following:

"The total number of shares of capital stock which the Corporation shall have authority to issue is Three Hundred and Ten Million (310,000,000), of which (i) Three Hundred Million (300,000,000) shares shall be a class designated as common stock, par value \$0.0001 per share (the "Common Stock"), and (ii) Ten Million Shares (10,000,000) shares shall be a class designated as preferred stock, par value \$0.0001 per share (the "Preferred Stock")."
3. The Board of Directors of the Corporation has duly adopted a resolution pursuant to Section 242 of the General Corporation Law of the State of Delaware setting forth a proposed amendment to the Certificate of Incorporation of the Corporation and declaring said amendment to be advisable. The requisite stockholders of the Corporation have duly approved said proposed amendment in accordance with Section 242 of the General Corporation Law of the State of Delaware.
4. All other provisions of the Certificate of Incorporation shall remain in full force and effect.
5. This Certificate of Amendment and the amendment to the Certificate of Incorporation effected hereby shall be effective immediately upon filing.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be signed by its Chief Executive Officer on this 17th day of June, 2021.

CORBUS PHARMACEUTICAL HOLDINGS, INC.

By: /s/ Yuval Cohen
Name: Yuval Cohen
Title: Chief Executive Officer

State of Delaware
Secretary of State
Division of Corporations
Delivered 11:36 AM 06/17/2021
FILED 11:36 AM 06/17/2021
SR 20212477839 - FileNumber 5451915

CORBUS PHARMACEUTICALS HOLDINGS, INC.

**CERTIFICATE OF DESIGNATION
OF
SERIES A PREFERRED STOCK**

Pursuant to Section 151 of the
General Corporation Law of the State of Delaware

THE UNDERSIGNED DOES HEREBY CERTIFY, on behalf of Corbus Pharmaceuticals Holdings, Inc., a Delaware corporation (the "**Corporation**"), that the following resolution was duly adopted by the board of directors of the Corporation (the "**Board of Directors**"), in accordance with the provisions of Section 151 of the General Corporation Law of the State of Delaware, as amended (the "**DGCL**"), at a meeting duly called and held on October 11, 2022, which resolution provides for the creation of a series of the Corporation's Preferred Stock, par value \$0.0001 per share, which is designated as "Series A Preferred Stock," with the rights, powers and preferences, and the qualifications, limitations and restrictions thereof, set forth therein.

WHEREAS, the Amended and Restated Certificate of Incorporation of the Corporation (as amended, the "**Certificate of Incorporation**"), provides for one or more series of capital stock of the Corporation designated as preferred stock, consisting of 10,000,000 shares, par value \$0.0001 per share (the "**Preferred Stock**"), and further provides that the Board of Directors is expressly authorized to provide, out of the authorized and unissued shares of Preferred Stock, for one or more series of Preferred Stock and to fix the number of shares constituting each such series and the powers (including voting powers, if any), preferences and relative, participating, optional and other special rights of, and the qualifications, limitations or restrictions thereof, of each series of Preferred Stock.

NOW, THEREFORE, BE IT RESOLVED, that, pursuant to authority conferred upon the Board of Directors by the Certificate of Incorporation, (i) a series of Preferred Stock be, and hereby is, authorized by the Board of Directors, (ii) the Board of Directors hereby authorizes the issuance of 1,100,000 shares of Series A Preferred Stock and (iii) the Board of Directors hereby fixes the designations, powers, preferences and rights, and the qualifications, limitations or restrictions thereof, of such shares of Preferred Stock, in addition to any provisions set forth in the Certificate of Incorporation that are applicable to all series of the Preferred Stock, as follows:

TERMS OF PREFERRED STOCK

1. Designation, Amount and Par Value. The series of Preferred Stock created hereby shall be designated as the Series A Preferred Stock (the "**Series A Preferred Stock**"), and the number of shares so designated shall be 1,100,000. Each share of Series A Preferred Stock shall have a par value of \$0.0001 per share.
2. Dividends. The holders of Series A Preferred Stock, as such, shall not be entitled to receive dividends of any kind.
3. Voting Rights. Except as otherwise provided by the Certificate of Incorporation or required by law, the holders of shares of Series A Preferred Stock shall have the following voting rights:
 - 3.1 Except as otherwise provided herein, each outstanding share of Series A Preferred Stock shall have 62,500,000 votes per share (and, for the avoidance of doubt, each fraction of a share of Series A Preferred Stock shall have a ratable number of votes). The outstanding shares of Series A Preferred Stock shall vote together with the outstanding shares of common stock, par value \$0.0001 per share (the "**Common Stock**"), of the Corporation as a single class exclusively with respect to the Reverse Stock Split (as defined below) and shall not be entitled to vote on any other matter except to the extent required under the DGCL. Notwithstanding the foregoing, and for the avoidance of doubt, each share of Series A Preferred Stock (or fraction thereof) redeemed pursuant to the Initial Redemption (as defined below) shall have no voting power with respect to, and the holder of each share of Series A Preferred Stock (or fraction thereof) redeemed pursuant to the Initial Redemption shall have no voting power with respect to any such share of Series A Preferred Stock (or fraction thereof) on, the Reverse Stock Split or any other

matter brought before any meeting of stockholders held to vote on the Reverse Stock Split. As used herein, the term **"Reverse Stock Split"** means any proposal to adopt an amendment to the Certificate of Incorporation to reclassify the outstanding shares of Common Stock into a smaller number of shares of Common Stock at a ratio specified in or determined in accordance with the terms of such amendment.

3.2 Unless otherwise provided on any applicable proxy or ballot with respect to the voting on the Reverse Stock Split, the vote of each share of Series A Preferred Stock (or fraction thereof) entitled to vote on the Reverse Stock Split or any other matter brought before any meeting of stockholders held to vote on the Reverse Stock Split shall be cast in the same manner as the vote, if any, of the share of Common Stock (or fraction thereof) in respect of which such share of Series A Preferred Stock (or fraction thereof) was issued as a dividend is cast on the Reverse Stock Split or such other matter, as applicable, and the proxy or ballot with respect to shares of Common Stock held by any holder on whose behalf such proxy or ballot is submitted will be deemed to include all shares of Series A Preferred Stock (or fraction thereof) held by such holder. Holders of Series A Preferred Stock will not receive a separate ballot or proxy to cast votes with respect to the Series A Preferred Stock on the Reverse Stock Split or any other matter brought before any meeting of stockholders held to vote on the Reverse Stock Split.

4. Rank; Liquidation.

4.1 The Series A Preferred Stock shall rank senior to the Common Stock as to any distribution of assets upon a liquidation, dissolution or winding up of the Corporation, whether voluntarily or involuntarily (a **"Dissolution"**). For the avoidance of any doubt, but without limiting the foregoing, neither the merger or consolidation of the Corporation with or into any other entity, nor the sale, lease, exchange or other disposition of all or substantially all of the Corporation's assets shall, in and of itself, be deemed to constitute a Dissolution.

4.2 Upon any Dissolution, each holder of outstanding shares of Series A Preferred Stock shall be entitled to be paid out of the assets of the Corporation available for distribution to stockholders, prior and in preference to any distribution to the holders of Common Stock, an amount in cash equal to \$0.0001 per outstanding share of Series A Preferred Stock.

5. Redemption.

5.1 All shares of Series A Preferred Stock that are not present in person or by proxy at any meeting of stockholders held to vote on the Reverse Stock Split as of immediately prior to the opening of the polls at such meeting (the **"Initial Redemption Time"**) shall automatically be redeemed by the Corporation at the Initial Redemption Time without further action on the part of the Corporation or the holder thereof (the **"Initial Redemption"**).

5.2 Any outstanding shares of Series A Preferred Stock that have not been redeemed pursuant to an Initial Redemption shall be redeemed in whole, but not in part, (i) if such redemption is ordered by the Board of Directors in its sole discretion, automatically and effective on such time and date specified by the Board of Directors in its sole discretion or (ii) automatically upon the effectiveness of the amendment to the Certificate of Incorporation implementing the Reverse Stock Split (any such redemption pursuant to this Section 5.2, the **"Subsequent Redemption"** and, together with the Initial Redemption, the **"Redemptions"**). As used herein, the **"Subsequent Redemption Time"** shall mean the effective time of the Subsequent Redemption, and the **"Redemption Time"** shall mean (i) with respect to the Initial Redemption, the Initial Redemption Time and (ii) with respect to the Subsequent Redemption, the Subsequent Redemption Time.

5.3 Each share of Series A Preferred Stock redeemed in any Redemption pursuant to this Section 5 shall be redeemed in consideration for the right to receive an amount equal to \$0.001 in cash for each ten whole shares of Series A Preferred Stock that are "beneficially owned" by the "beneficial owner" (as such terms are defined below) thereof as of immediately prior to the applicable Redemption Time and redeemed pursuant to such Redemption, payable upon the applicable Redemption Time; provided, however, that for the avoidance of doubt, the redemption consideration in respect of the shares of Series A Preferred Stock (or fractions thereof) redeemed in any Redemption pursuant to this Section 5: (x) shall entitle the former beneficial owners of less than ten whole shares of Series A Preferred Stock redeemed in any Redemption to no cash payment in respect thereof and (y) shall, in the case of a former beneficial owner of a number of shares of Series A Preferred Stock (or fractions thereof) redeemed pursuant to any Redemption that is not equal to a whole number that is a multiple of ten, entitle such beneficial owner to the

same cash payment, if any, in respect of such Redemption as would have been payable in such Redemption to such beneficial owner if the number of shares (or fractions thereof) beneficially owned by such beneficial owner and redeemed pursuant to such Redemption were rounded down to the nearest whole number that is a multiple of ten (such, that for example, the former beneficial owner of 25 shares of Series A Preferred Stock redeemed pursuant to any Redemption shall be entitled to receive the same cash payment in respect of such Redemption as would have been payable to the former beneficial owner of 20 shares of Series A Preferred Stock redeemed pursuant to such Redemption). As used herein, "**Person**" shall mean any individual, firm, corporation, partnership, limited liability company, trust or other entity, and shall include any successor (by merger or otherwise) to such entity. As used herein, a Person shall be deemed the "**beneficial owner**" of, and shall be deemed to "**beneficially own**," any securities which such Person is deemed to beneficially own, directly or indirectly, within the meaning of Rule 13d-3 of the General Rules and Regulations under the Securities Exchange Act of 1934, as amended.

5.4 From and after the time at which any shares of Series A Preferred Stock are called for redemption (whether automatically or otherwise) in accordance with Section 5.1 or Section 5.2, such shares of Series A Preferred Stock shall cease to be outstanding, and the only right of the former holders of such shares of Series A Preferred Stock, as such, will be to receive the applicable redemption price, if any. The shares of Series A Preferred Stock redeemed by the Corporation pursuant to this Certificate of Designation shall, upon such redemption, be automatically retired and restored to the status of authorized but unissued shares of Preferred Stock. Notwithstanding anything to the contrary herein or otherwise, and for the avoidance of doubt, any shares of Series A Preferred Stock (or fraction thereof) that have been redeemed pursuant to an Initial Redemption shall not be deemed to be outstanding for the purpose of voting or determining the number of votes entitled to vote on any matter submitted to stockholders (including the Reverse Stock Split or any other matter brought before any meeting of stockholders held to vote on the Reverse Stock Split) from and after the time of the Initial Redemption. Notice of any meeting of stockholders for the submission to stockholders of any proposal to approve the Reverse Stock Split shall constitute notice of (i) a redemption of shares of Series A Preferred Stock pursuant to an Initial Redemption and result in the automatic redemption of the applicable shares of Series A Preferred Stock (and/or fractions thereof) pursuant to the Initial Redemption at the Initial Redemption Time pursuant to Section 5.1 hereof and (ii) a redemption of shares of Series A Preferred Stock pursuant to a Subsequent Redemption and result in the automatic redemption of the applicable shares of Series A Preferred Stock (and/or fractions thereof) pursuant to the Subsequent Redemption at the Subsequent Redemption Time pursuant to Section 5.2 hereof. In connection with the filing of this Certificate of Designation, the Corporation has set apart funds for payment for the redemption of all shares of Series A Preferred Stock pursuant to the Redemptions and shall continue to keep such funds apart for such payment through the payment of the purchase price for the redemption of all such shares.

6. Transfer. Shares of Series A Preferred Stock will be uncertificated and represented in book-entry form. No shares of Series A Preferred Stock may be transferred by the holder thereof except in connection with a transfer by such holder of any shares of Common Stock held thereby, in which case a number of eight thousandths (8/1,000ths) of a share of Series A Preferred Stock equal to the number of shares of Common Stock to be transferred by such holder shall be automatically transferred to the transferee of such shares of Common Stock. Notice of the foregoing restrictions on transfer shall be given in accordance with Section 151 of the DGCL.

7. Fractional Shares. The Series A Preferred Stock may be issued in whole shares or in any fraction of a share that is eight-thousandths (8/1,000ths) of a share or any integral multiple of such fraction, which fractions shall entitle the holder, in proportion to such holder's fractional shares, to exercise voting rights, participate in distributions upon a Dissolution and have the benefit of any other rights of holders of Series A Preferred Stock.

8. Severability. Whenever possible, each provision hereof shall be interpreted in a manner as to be effective and valid under applicable law, but if any provision hereof is held to be prohibited by or invalid under applicable law, then such provision shall be ineffective only to the extent of such prohibition or invalidity, without invalidating or otherwise adversely affecting the remaining provisions hereof.

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IN WITNESS WHEREOF, Corbus Pharmaceutical Holdings, Inc. has caused this Certificate of Designation of Series A Preferred Stock to be duly executed by the undersigned duly authorized officer as of this 12th day of October, 2022.

CORBUS PHARMACEUTICALS
HOLDINGS, INC.

By: /s/ Yuval Cohen _____

Yuval Cohen
Chief Executive Officer

**CERTIFICATE OF AMENDMENT TO THE
AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
CORBUS PHARMACEUTICALS HOLDINGS, INC.**

Corbus Pharmaceuticals Holdings, Inc. (the "*Corporation*"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify as follows:

FIRST: The name of the Corporation is Corbus Pharmaceuticals Holdings, Inc.

SECOND: That a resolution was duly adopted by the Board of Directors of the Corporation pursuant to Section 242 of the General Corporation Law of the State of Delaware setting forth an amendment to the Certificate of Incorporation of the Corporation and declaring said amendment to be advisable. The stockholders of the Corporation duly approved said proposed amendment at a meeting of stockholders held in accordance with Section 242 of the General Corporation Law of the State of Delaware.

THIRD: Article FOURTH of the Amended and Restated Certificate of Incorporation of the Corporation, as amended to date, be and hereby is further amended by adding the following after the first paragraph of Section A of Article FOURTH:

"Upon effectiveness ("*Effective Time*") of this amendment to the Amended and Restated Certificate of Incorporation of the Corporation, a one-for-thirty reverse stock split (the "*Reverse Split*") of the Corporation's shares of Common Stock that are issued and outstanding or held by the Corporation immediately prior to the Effective Time shall become effective, pursuant to which each thirty (such number, the "*Reverse Split Factor*") shares of Common Stock issued and outstanding or held by the Corporation in treasury immediately prior to the Effective Time ("*Old Common Stock*") shall automatically, and without any action by the holder thereof, be reclassified and combined into one (1) validly issued, fully paid and non-assessable share of Common Stock ("*New Common Stock*"), subject to the treatment of fractional interests as described below and with no corresponding reduction in the number of authorized shares of Common Stock.

No fractional shares of New Common Stock will be issued in connection with the Reverse Split. Stockholders of record who otherwise would be entitled to receive fractional shares of New Common Stock, will be entitled to receive cash (without interest) in lieu of fractional shares of New Common Stock, equal to the product of: (i) such fraction *multiplied by* (ii) the average of the closing sales prices of our Old Common Stock on the exchange the Corporation is currently trading during regular trading hours for the five consecutive trading days immediately preceding the date of the Effective Time *multiplied by* (iii) the Reverse Split Factor.

Each holder of a certificate or certificates representing one or more shares of the Old Common Stock shall be entitled to receive as soon as practicable, upon surrender of such certificate together with a properly completed and executed letter of transmittal in the form provided by the Corporation, a certificate or certificates representing the largest whole number of shares of New Common Stock to which such holder shall be entitled as a result of the Reverse Split. Each stock certificate that, immediately prior to the Effective Time, represented shares of Old Common Stock that were issued and outstanding immediately prior to the Effective Time shall, upon the Effective Time, automatically and without the necessity of presenting the same for exchange, represent that number of whole shares of New Common Stock into which the shares formerly represented by such certificate have been reclassified pursuant to the Reverse Split (as well as the right to receive cash

in lieu of any fractional shares of New Common Stock otherwise issuable in respect thereof after the Effective Time).”

FOURTH: That said amendment will have an Effective Time of 12:01 A.M., Eastern Time, on February 14, 2023.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be signed by duly authorized officer this 9th day of February, 2023.

CORBUS PHARMACEUTICALS HOLDINGS, INC.

By: /s/ Yuval Cohen

Name: Yuval Cohen

Title: Chief Executive Officer

AMENDED AND RESTATED BYLAWS
OF
CORBUS PHARMACEUTICALS HOLDINGS, INC.

(the "Corporation")

ARTICLE
I Stockholders

SECTION 1.

(a) Annual Meeting. The annual meeting of stockholders (any such meeting being referred to in these Bylaws as an "Annual Meeting") shall be held at the hour, date and place, if any, within or without the United States which is fixed by the Board of Directors of the Corporation (the "Board of Directors") which time, date and place may subsequently be changed at any time by vote of the Board of Directors.

(b) Registered Office. The address of the registered office of the Corporation in the State of Delaware shall be as stated in the Corporation's Certificate of Incorporation, as may be changed from time to time as provided by law. The Corporation may have other offices, both within and without the State of Delaware, as the board of directors of the Corporation (the "Board of Directors") from time to time shall determine or the business of the Corporation may require.

(c) Books and Records. Any records maintained by the Corporation in the regular course of its business, including its stock ledger, books of account and minute books, may be maintained on any information storage device or method; provided that the records so kept can be converted into clearly legible paper form within a reasonable time. The Corporation shall so convert any records so kept upon the request of any person entitled to inspect such records pursuant to applicable law.

SECTION 2. Notice of Stockholder Business and Nominations.

(a) Annual Meetings of Stockholders.

(1) Nominations of persons for election to the Board of Directors and the proposal of other business to be considered by the stockholders may be brought before an Annual Meeting only (i) pursuant to the Corporation's notice of meeting (or any supplement thereto), (ii) by or at the direction of the Board of Directors or (iii) by any stockholder of the Corporation who was a stockholder of record at the time of giving of notice provided for in this Bylaw, who is entitled to vote at the meeting, and who complies with the notice procedures set forth in this Bylaw as to such nomination or business. For the avoidance of doubt, the foregoing clause (iii) shall be the exclusive means for a stockholder to bring nominations or business properly before an Annual Meeting (other than matters properly brought under Rule 14a-8 (or any successor rule) under the Securities Exchange Act of 1934, as amended (with the rules and regulations promulgated thereunder, the "Exchange Act")), and such stockholder must comply with the notice and other procedures set forth in Article I, Section 2 of this Bylaw to bring such nominations or business properly before an Annual Meeting. In addition to the other requirements set forth in this Bylaw, for any proposal of business (other than the nomination of persons for election to the Board of Directors) to be considered at an Annual Meeting, it must be a proper subject for action by stockholders of the Corporation under Delaware law.

(2) For nominations or other business to be properly brought before an Annual Meeting by a stockholder pursuant to clause (iii) of Article I, Section 2(a)(1) of this Bylaw, the stockholder must (i) have given Timely Notice (as defined below) thereof in writing to the Secretary of the Corporation, (ii) have provided any updates or supplements to such notice at the times and in the forms required by this Bylaw and (iii) together with the beneficial owner(s), if any, on whose behalf the nomination or business proposal is made, have acted in accordance with the representations set forth in the Solicitation Statement (as defined below) required by this Bylaw. To be timely, a stockholder's written notice shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the ninetieth (90th) day nor earlier than the close of business on the one hundred twentieth (120th) day prior to the one-year anniversary of the preceding year's Annual Meeting; provided, however, that in the event the Annual Meeting is first convened more than thirty (30) days before or more than sixty (60) days after such anniversary date, or if no Annual Meeting were held in the preceding year, notice by the stockholder to be timely must be received by the Secretary of the Corporation not later than the later of the ninetieth (90th) day prior to the scheduled date of such Annual Meeting or the tenth (10th) day following the day on which public announcement of the date of such meeting is first made (such notice within such time periods shall be referred to as "Timely Notice"). Notwithstanding anything to the contrary provided herein, for the first Annual Meeting following the effective date of the Corporation's registration statement submitted with the U.S. Securities and Exchange Commission, a stockholder's notice shall be timely if received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the later of the ninetieth (90th) day prior to the scheduled date of such Annual Meeting or the tenth (10th) day following the day on which public announcement of the date of such Annual Meeting is first made or sent by the Corporation. In no event shall the public announcement of an adjournment or postponement of an annual meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above. Such stockholder's Timely Notice shall set forth:

(A) as to each person whom the stockholder proposes to nominate for election or reelection as a director, all information relating to such person that is required to be disclosed in solicitations of proxies for election of directors in an election contest, or is otherwise required, in each case pursuant to Regulation 14A under the Exchange Act (including such person's written consent to being named in the proxy statement as a nominee and to serving as a director if elected) provided, further, that the Corporation may require any proposed nominee to furnish such other information as the Corporation may reasonably require to determine the eligibility of such proposed nominee to serve as a director of the Corporation.;

(B) as to any other business that the stockholder proposes to bring before the meeting, a brief description of the business desired to be brought before the meeting, the text of the proposal or business (including the text of any resolutions proposed for consideration and in the event that such business includes a proposal to amend the Bylaws, the language of the proposed amendment), the reasons for conducting such business at the meeting, and any material interest in such business of each Proposing Person (as defined below);

(C) (i) the name and address of the stockholder giving the notice, as they appear on the Corporation's books, and the names and addresses of the other Proposing Persons (if any) and (ii) as to each Proposing Person, the following information: (a) the class or series and number of all shares of capital stock of the Corporation which are, directly or indirectly, owned beneficially or of record by such Proposing Person or any of its affiliates or associates (as such terms are defined in Rule 12b-2 promulgated under the Exchange Act), including any shares of any class or series of capital stock of the Corporation as to which such Proposing Person or any of its affiliates or associates has a right to acquire beneficial ownership at any time in the future, (b) all Synthetic Equity Interests (as defined below) in which such Proposing Person or any of its affiliates or associates, directly or indirectly, holds an interest including a description of the material terms of each such Synthetic Equity Interest, including without limitation, identification of the counterparty to each such Synthetic Equity Interest and disclosure, for each such Synthetic Equity Interest, as to (x) whether or not such Synthetic Equity Interest conveys any voting rights, directly or indirectly, in such shares to such Proposing Person, (y) whether or not such Synthetic Equity Interest is required to be, or is capable of being, settled through delivery of such shares and (z) whether or not such Proposing Person and/or, to the extent known, the counterparty to such Synthetic Equity Interest has entered into other transactions that hedge or mitigate the economic effect of such Synthetic Equity Interest, (c) any proxy (other than a revocable proxy given in response to a public proxy solicitation made pursuant to, and in accordance with, the Exchange Act), agreement, arrangement, understanding or relationship pursuant to which such Proposing Person has or shares a right to, directly or indirectly, vote any shares of any class or series of capital stock of the Corporation, (d) any rights to dividends or other distributions on the shares of any class or series of capital stock of the Corporation, directly or indirectly, owned beneficially by such Proposing Person that are separated or separable from the underlying shares of the Corporation, and (e) any performance-related fees (other than an asset based fee) that such Proposing Person, directly or indirectly, is entitled to based on any increase or decrease in the value of shares of any class or series of capital stock of the Corporation or any Synthetic Equity Interests (the disclosures to be made pursuant to the foregoing clauses (a) through (e) are referred to, collectively, as "Material Ownership Interests"), (iii) a description of the material terms of all agreements, arrangements or understandings (whether or not in writing) entered into by any Proposing Person or any of its affiliates or associates with any other person for the purpose of acquiring, holding, disposing or voting of any shares of any class or series of capital stock of the Corporation and (iv) any other information relating to such stockholder and beneficial owner, if any, required to be disclosed in a proxy statement or other filings required to be made in connection with the solicitation of proxies for, as applicable, the proposal and/or for the election of directors in an election contest pursuant to and in accordance with Section 14(a) of the Exchange Act and the rules and regulations promulgated thereunder;

(D) (i) a description of all agreements, arrangements or understandings by and among any of the Proposing Persons, or by and among any Proposing Persons and any other person (including with any proposed nominee(s)), pertaining to the nomination(s) or other business proposed to be brought before the meeting of stockholders (which description shall identify the name of each other person who is party to such an agreement, arrangement or understanding), and (ii) identification of the names and addresses of other stockholders (including beneficial owners) known by any of the Proposing Persons to support such nominations or other business proposal(s), and to the extent known the class and number of all shares of the Corporation's capital stock owned beneficially or of record by such other stockholder(s) or other beneficial owner(s); and

(E) a statement whether or not the stockholder giving the notice and/or the other Proposing Person(s), if any, will (i) deliver a proxy statement and form of proxy to holders of, in the case of a business proposal, at least the percentage of voting power of all of the shares of capital stock of the Corporation required under applicable law to approve the proposal or, in the case of a nomination or nominations, at least the percentage of voting power of all of the shares of capital stock of the Corporation reasonably believed by such Proposing Person to be sufficient to elect the nominee or nominees proposed to be nominated by such stockholder and/or (ii) otherwise solicit proxies or votes from stockholders in support of such proposal or nomination (such statement, the "Solicitation Statement").

For purposes of this Article I of these Bylaws, the term "Proposing Person" shall mean the following persons: (i) the stockholder of record providing the notice of nominations or business proposed to be brought before a stockholders' meeting, and (ii) the beneficial owner(s), if different, on whose behalf the nominations or business proposed to be brought before a stockholders' meeting is made. For purposes of this Section 2 of Article I of these Bylaws, the term "Synthetic Equity Interest" shall mean any transaction, agreement or arrangement (or series of transactions, agreements or arrangements), including, without limitation, any derivative, swap, hedge, repurchase or so-called "stock borrowing" agreement or arrangement, the purpose or effect of which is to, directly or indirectly: (a) give a person or entity economic benefit and/or risk similar to ownership of shares of any class or series of capital stock of the Corporation, in whole or in part, including due to the fact that such transaction, agreement or arrangement provides, directly or indirectly, the opportunity to profit or avoid a loss from any increase or decrease in the value of any shares of any class or series of capital stock of the Corporation, (b) mitigate loss to, reduce the economic risk of or manage the risk of share price changes for, any person or entity with respect to any shares of any class or series of capital stock of the Corporation, (c) otherwise provide in any manner the opportunity to profit or avoid a loss from any decrease in the value of any shares of any class or series of capital stock of the Corporation, or (d) increase or decrease the voting power of any person or entity with respect to any shares of any class or series of capital stock of the Corporation.

(3) A stockholder providing Timely Notice of nominations or business proposed to be brought before an Annual Meeting shall further update and supplement such notice, if necessary, so that the information (including, without limitation, the Material Ownership Interests information) provided or required to be provided in such notice pursuant to this Bylaw shall be true and correct as of the record date for the meeting and as of the date that is ten (10) business days prior to such Annual Meeting, and such update and supplement shall be received by the Secretary at the principal executive offices of the Corporation not later than the close of business on the fifth (5th) business day after the record date for the Annual Meeting (in the case of the update and supplement required to be made as of the record date), and not later than the close of business on the eighth (8th) business day prior to the date of the Annual Meeting (in the case of the update and supplement required to be made as of ten (10) business days prior to the meeting).

(4) Notwithstanding anything in the second sentence of Article I, Section 2(a)(2) of this Bylaw to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation is increased and there is no public announcement naming all of the nominees for director or specifying the size of the increased Board of Directors made by the Corporation at least ten (10) days before the last day a stockholder may deliver a notice of nomination in accordance with the second sentence of Article I, Section 2(a)(2), a stockholder's notice required by this Bylaw shall also be considered timely, but only with respect to nominees for any new positions created by such increase, if it shall be received by the Secretary of the Corporation not later than the close of business on the tenth (10th) day following the day on which such public announcement is first made by the Corporation.

(5) Only such business shall be conducted at a special meeting of stockholders as shall have been brought before the meeting pursuant to the Corporation's notice of meeting. Nominations for persons for election to the Board of Directors may be made at a special meeting of stockholders at which directors are to be elected pursuant to the Corporation's notice of meeting (i) by or at the direction of the Board of Directors or any committee thereof or (ii) provided that the Board of Directors has determined that directors shall be elected at such meeting, by any stockholder of the Corporation who is a stockholder of record at the time the notice provided for in this Section 2 is delivered to the Secretary of the Corporation, who is entitled to vote at the meeting and upon such election and who complies with the notice procedures set forth in this Section 2. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any such stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in the Corporation's notice of meeting, if the stockholder's notice required by paragraph (a)(2) of this Section 2 shall be delivered to the Secretary at the principal executive offices of the Corporation not earlier than the close of business on the one hundred twentieth (120th) day prior to such special meeting and not later than the close of business on the later of the ninetieth (90th) day prior to such special meeting or the tenth (10th) day following the day on which public announcement is first made of the date of the special meeting and of the nominees proposed by the Board of Directors to be elected at such meeting. In no event shall the public announcement of an adjournment or postponement of a special meeting commence a new time period (or extend any time period) for the giving of a stockholder's notice as described above.

(b) General.

(1) Except as otherwise expressly provided in any applicable rule or regulation promulgated under the Exchange Act, only such persons who are nominated in accordance with the provisions of this Bylaw shall be eligible for election and to serve as directors and only such business shall be conducted at a meeting as shall have been brought before the meeting in accordance with the provisions of this Bylaw. The Board of Directors or a designated committee thereof shall have the power to determine whether a nomination or any business proposed to be brought before the meeting was made in accordance with the provisions of this Bylaw. If prior to the meeting neither the Board of Directors nor such designated committee makes a determination as to whether any stockholder proposal or nomination was made in accordance with the provisions of this Bylaw, the presiding officer of the meeting shall have the power and duty to determine whether the stockholder proposal or nomination was made in accordance with the provisions of this Bylaw. If the Board of Directors or a designated committee thereof or the presiding officer, as applicable, determines that any stockholder proposal or nomination was not made in accordance with the provisions of this Bylaw, such proposal or nomination shall be disregarded and shall not be presented for action at the meeting.

(2) Except as otherwise required by any applicable law or rule or regulation promulgated under the Exchange Act, nothing in this Article I, Section 2 shall obligate the Corporation or the Board of Directors to include in any proxy statement or other stockholder communication distributed on behalf of the Corporation or the Board of Directors information with respect to any nominee for director or any other matter of business submitted by a stockholder.

(3) Notwithstanding the foregoing provisions of this Article I, Section 2, if the proposing stockholder (or a qualified representative of the stockholder) does not appear at the meeting to present a nomination or any business, such nomination or business shall be disregarded, notwithstanding that proxies in respect of such vote may have been received by the Corporation. For purposes of this Article I, Section 2, to be considered a qualified representative of the proposing stockholder, a person must be authorized by a written instrument executed by such stockholder or an electronic transmission delivered by such stockholder to act for such stockholder as proxy at the meeting of stockholders and such person must produce such written instrument or electronic transmission, or a reliable reproduction of the written instrument or electronic transmission, to the presiding officer at the meeting of stockholders.

(4) For purposes of this Bylaw, "public announcement" shall mean disclosure in a press release reported by the Dow Jones News Service, Associated Press or comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission pursuant to Section 13, 14 or 15(d) of the Exchange Act.

(5) Notwithstanding the foregoing provisions of this Bylaw, a stockholder shall also comply with all applicable requirements of the Exchange Act and the rules and regulations thereunder with respect to the matters set forth in this Bylaw. Nothing in this Bylaw shall be deemed to affect any rights of (i) stockholders to have proposals included in the Corporation's proxy statement pursuant to Rule 14a-8 (or any successor rule) under the Exchange Act and, to the extent required by such rule, have such proposals considered and voted on at an Annual Meeting or (ii) the holders of any series of Preferred Stock as specified in the Certificate of Incorporation of the Corporation (as the same may hereafter be amended and/or restated, the "Certificate") (including any certificate of designation relating to any series of Preferred Stock).

(6) In addition to the requirements set forth elsewhere in these Bylaws, to be eligible to be a nominee for election or re-election as a director of the Corporation pursuant to a nomination under clause (iii) of Article I, Section 2(a)(1) and under clause (ii) of Article I, Section 2(a)(5) of this Bylaw, such proposed nominee or a person on such proposed nominee's behalf must deliver, in accordance with the time periods for delivery of Timely Notice under Section 2(a)(2) of Article I and under clause (ii) of Article I, Section 2(a)(5) of this Bylaw, to the Secretary of the Corporation at the principal executive offices of the Corporation a completed and signed questionnaire with respect to the background and qualification of such proposed nominee and the background of any other person or entity on whose behalf the nomination is being made (which questionnaire shall be provided by the Secretary upon written request) and a written representation and agreement (in the form provided by the Secretary upon written request) that such proposed nominee (i) is not and will not become a party to (A) any agreement, arrangement or understanding with, and has not given any commitment or assurance to, any person or entity as to how such proposed nominee, if elected as a director of the Corporation, will act or vote on any issue or question (a "Voting Commitment") that has not been disclosed to the Corporation or (B) any Voting Commitment that could limit or interfere with such proposed nominee's fiduciary duties under applicable law, (ii) is not and will not become a party to any agreement, arrangement or understanding with any person or entity other than the Corporation with respect to any direct or indirect compensation, reimbursement or indemnification in connection with service or action as a director that has not been disclosed to the Corporation, and (iii) in such proposed nominee's individual capacity and on behalf of any person or entity on whose behalf the nomination is being made, would be in compliance, if elected as a director of the Corporation, and will comply with, all applicable publicly disclosed corporate governance, code of conduct and ethics, conflict of interest, confidentiality, corporate opportunities, trading and any other policies and guidelines of the Corporation applicable to directors.

SECTION 3. Special Meetings. Except as otherwise required by statute and subject to the rights, if any, of the holders of any series of Preferred Stock, special meetings of the stockholders of the Corporation may be called only by the Board of Directors acting pursuant to a resolution approved by the affirmative vote of a majority of the Board of Directors to be held at such date, time and place either within or without the State of Delaware as may be stated in the notice of the meeting. The Board of Directors may postpone or reschedule any previously scheduled special meeting of stockholders. Only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders of the Corporation.

SECTION 4. Notice of Meetings; Adjournments.

(a) A notice of each Annual Meeting stating the hour, date and place, if any, of such Annual Meeting, the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting, and the record date for determining the stockholders entitled to vote at the meeting (if such date is different from the record date for stockholders entitled to notice of the meeting) shall be given not less than ten (10) days nor more than sixty (60) days before the Annual Meeting, to each stockholder entitled to vote thereat as of the record date for determining the stockholders entitled to notice of the meeting by delivering such notice to such stockholder or by mailing it, postage prepaid, addressed to such stockholder at the address of such stockholder as it appears on the Corporation's stock transfer books. Without limiting the manner by which notice may otherwise be given to stockholders, any notice to stockholders may be given by electronic transmission in the manner provided in Section 232 of the Delaware General Corporation Law ("DGCL").

(b) Notice of all special meetings of stockholders shall be given in the same manner as provided for Annual Meetings, except that the notice of all special meetings shall state the purpose or purposes for which the meeting has been called.

(c) Notice of an Annual Meeting or special meeting of stockholders need not be given to a stockholder if a waiver of notice is executed, or waiver of notice by electronic transmission is provided, before or after such meeting by such stockholder or if such stockholder attends such meeting, unless such attendance is for the express purpose of objecting at the beginning of the meeting to the transaction of any business because the meeting was not lawfully called or convened.

(d) The Board of Directors may postpone and reschedule any previously scheduled Annual Meeting or special meeting of stockholders, regardless of whether any notice or public disclosure with respect to any such meeting has been sent or made pursuant to Section 2 of this Article I of these Bylaws or otherwise.

(e) When any meeting is convened, the presiding officer may adjourn the meeting. When any Annual Meeting or special meeting of stockholders is adjourned to another hour, date or place, notice need not be given of the adjourned meeting other than an announcement at the meeting at which the adjournment is taken of the hour, date and place, if any, to which the meeting is adjourned and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting; provided, however, that if the adjournment is for more than thirty (30) days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting, or, if after the adjournment a new record date is fixed for the adjourned meeting, the Board of Directors shall fix as the record date for determining stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote at the adjourned meeting, and shall give notice of the adjourned meeting to each stockholder of record as of the record date so fixed for notice of such adjourned meeting.

SECTION 5. Quorum. A majority in voting power of the shares entitled to vote at the meeting, present in person or represented by proxy, shall constitute a quorum at any meeting of stockholders. If less than a quorum is present at a meeting, the holders of voting stock representing a majority of the voting power present at the meeting or the presiding officer may adjourn the meeting from time to time, and the meeting may be held as adjourned without further notice, except as provided in Section 4 of this Article I. At such adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the meeting as originally noticed. The stockholders present at a duly constituted meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum.

SECTION 6. Voting and Proxies. Stockholders shall have one vote for each share of stock entitled to vote owned by them of record according to the stock ledger of the Corporation as of the record date, unless otherwise provided by law or by the Certificate. Stockholders may vote either (i) in person, (ii) by written proxy or (iii) by a transmission permitted by Section 212(c) of the DGCL. Any copy, facsimile telecommunication or other reliable reproduction of the writing or transmission permitted by Section 212(c) of the DGCL may be substituted for or used in lieu of the original writing or transmission for any and all purposes for which the original writing or transmission could be used, provided that such copy, facsimile telecommunication or other reproduction shall be a complete reproduction of the entire original writing or transmission. Proxies shall be filed in accordance with the procedures established for the meeting of stockholders. Except as otherwise limited therein or as otherwise provided by law, proxies authorizing a person to vote at a specific meeting shall entitle the persons authorized thereby to vote at any adjournment or postponement of such meeting, but they shall not be valid after final adjournment of such meeting.

SECTION 7. Action at Meeting. When a quorum is present at any meeting of stockholders, any matter before any such meeting (other than an election of a director or directors) shall be decided by a majority of the votes properly cast on such matter, except where a different vote is required by law, by the Certificate, by these Bylaws, by the rules or regulations of any stock exchange applicable to the Corporation, or pursuant to any regulation applicable to the Corporation or its securities, in which case, such different vote shall apply. For purposes of this Section 7, a majority of votes cast shall mean that the number of votes cast "for" a matter exceeds the number of votes cast "against" the matter (with "abstentions" and "broker nonvotes" not counted as a vote cast either "for" or "against" the matter). Any election of directors by stockholders shall be determined by a plurality of the votes properly cast on the election of directors.

SECTION 8. Stockholder Lists. The officer who has charge of the stock ledger shall prepare and make, at least ten (10) days before every Annual Meeting or special meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting (provided, however, if the record date for determining the stockholders entitled to vote is less than ten (10) days before the date of the meeting, the list shall reflect the stockholders entitled to vote as of the tenth day before the meeting date), arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting at least ten (10) days prior to the meeting (i) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of meeting or (ii) during ordinary business hours at the principal place of business of the Corporation. If the meeting is to be held at a place, then a list of stockholders entitled to vote at the meeting shall be produced and kept at the time and place of the meeting during the whole time thereof and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Except as otherwise provided by law, the stock ledger shall be the only evidence as to who are the stockholders entitled to examine the list of stockholders required by this Section 8 or to vote in person or by proxy at any meeting of stockholders.

SECTION 9. Conduct of Meeting. The date and time of the opening and the closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting by the person presiding over the meeting. The Board of Directors may adopt by resolution such rules and regulations for the conduct of the meeting of stockholders as it shall deem appropriate. Except to the extent inconsistent with such rules and regulations as adopted by the Board of Directors, the person presiding over any meeting of stockholders (referred to herein as the "presiding officer") shall have the right and authority to convene and (for any or no reason) to recess and/or adjourn the meeting, to prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of the presiding officer, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the presiding officer, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders entitled to vote at the meeting, their duly authorized and constituted proxies or such other persons as the presiding officer shall determine; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. The presiding officer at any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall, if the facts warrant, determine and declare to the meeting that a matter or business was not properly brought before the meeting and if the presiding officer should so determine, the presiding officer shall so declare to the meeting and any such matter or business not properly brought before the meeting shall not be transacted or considered. Unless and to the extent determined by the Board of Directors or the presiding officer, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

SECTION 10. Inspectors of Elections. The Corporation shall, in advance of any meeting of stockholders, appoint one or more inspectors to act at the meeting and make a written report thereof. The Corporation may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at a meeting of stockholders, the presiding officer shall appoint one or more inspectors to act at the meeting. Any inspector may, but need not, be an officer, employee or agent of the Corporation. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspectors shall perform such duties as are required by the DGCL, including the counting of all votes and ballots. The inspectors may appoint or retain other persons or entities to assist the inspectors in the performance of the duties of the inspectors. The presiding officer may review all determinations made by the inspectors, and in so doing the presiding officer shall be entitled to exercise his or her sole judgment and discretion and he or she shall not be bound by any determinations made by the inspectors. All determinations by the inspectors and, if applicable, the presiding officer, shall be subject to further review by any court of competent jurisdiction.

ARTICLE II Directors

SECTION 1. Powers. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors except as otherwise provided by the Certificate or required by law.

SECTION 2. Number and Terms. The number of directors of the Corporation shall be fixed solely and exclusively by resolution duly adopted from time to time by the Board of Directors. The directors shall hold office in the manner provided in the Certificate.

SECTION 3. Qualification. No director need be a stockholder of the Corporation.

SECTION 4. Vacancies. Vacancies in the Board of Directors shall be filled in the manner provided in the Certificate.

SECTION 5. Removal. Directors may be removed from office only in the manner provided in the Certificate.

SECTION 6. Resignation. A director may resign at any time by giving written notice, or notice by electronic transmission, to the Chairman of the Board, if one is elected, the President or the Secretary. A resignation shall be effective upon receipt, unless the resignation otherwise provides.

SECTION 7. Regular Meetings. The regular annual meeting of the Board of Directors shall be held, without notice other than this Section 7, on the same date and at the same place as the Annual Meeting following the close of such meeting of stockholders. Other regular meetings of the Board of Directors may be held at such hour, date and place as the Board of Directors may by resolution from time to time determine and publicized among all directors.

SECTION 8. Special Meetings. Special meetings of the Board of Directors may be called, orally or in writing or by electronic transmission, by or at the request of a majority of the directors, the Chairman of the Board, if one is elected, or the President. The person calling any such special meeting of the Board of Directors may fix the hour, date and place thereof.

SECTION 9. Notice of Meetings. Notice of the hour, date and place of all special meetings of the Board of Directors shall be given to each director by the Secretary or an Assistant Secretary, or by the Chairman of the Board, if one is elected, or the President or such other officer designated by the Chairman of the Board, if one is elected, or the President. Notice of any special meeting of the Board of Directors shall be given to each director in person, by telephone, or by facsimile, electronic mail or other form of electronic communication, sent to his or her business or home address, at least twenty-four (24) hours in advance of the meeting, or by written notice mailed to his or her business or home address, at least three (3) business days in advance of the meeting. Such notice shall be deemed to be delivered when hand-delivered to such address, read to such director by telephone, deposited in the mail so addressed, with postage thereon prepaid if mailed, dispatched or transmitted if sent by facsimile transmission or by electronic mail or other form of electronic communications. A written waiver of notice signed, or an electronic waiver given, before or after a meeting by a director and filed with the records of the meeting shall be deemed to be equivalent to notice of the meeting. The attendance of a director at a meeting shall constitute a waiver of notice of such meeting, except where a director attends a meeting for the express purpose of objecting at the beginning of the meeting to the transaction of any business because such meeting is not lawfully called or convened. Except as otherwise required by law, by the Certificate or by these Bylaws, neither the business to be transacted at, nor the purpose of, any meeting of the Board of Directors need be specified in the notice or waiver of notice of such meeting.

SECTION 10. Quorum. At any meeting of the Board of Directors, a majority of the Board of Directors shall constitute a quorum for the transaction of business, but if less than a quorum is present at a meeting, a majority of the directors present may adjourn the meeting from time to time, and the meeting may be held as adjourned without further notice. Any business which might have been transacted at the meeting as originally noticed may be transacted at such adjourned meeting at which a quorum is present.

SECTION 11. Action at Meeting. At any meeting of the Board of Directors at which a quorum is present, the vote of a majority of the directors present shall constitute action by the Board of Directors, unless otherwise required by law, by the Certificate or by these Bylaws.

SECTION 12. Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors may be taken without a meeting if all members of the Board of Directors consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the records of the meetings of the Board of Directors. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form. Such consent shall be treated as a resolution of the Board of Directors for all purposes.

SECTION 13. Manner of Participation. Directors may participate in meetings of the Board of Directors by means of conference telephone or other communications equipment by means of which all directors participating in the meeting can hear each other, and participation in a meeting in accordance herewith shall constitute presence in person at such meeting for purposes of these Bylaws.

SECTION 14. Presiding Director. The Board of Directors shall designate a representative to preside over all meetings of the Board of Directors, provided that if the Board of Directors does not so designate such a presiding director or such designated presiding director is unable to so preside or is absent, then the Chairman of the Board, if one is elected, shall preside over all meetings of the Board of Directors. If both the designated presiding director, if one is so designated, and the Chairman of the Board, if one is elected, are unable to preside or are absent, the Board of Directors shall designate an alternate representative to preside over a meeting of the Board of Directors.

SECTION 15. Committees. The Board of Directors may designate one or more committees, including, without limitation, a Compensation Committee, a Nominating & Corporate Governance Committee and an Audit Committee, and may delegate thereto some or all of its powers except those which by law, by the Certificate or by these Bylaws may not be delegated. Except as the Board of Directors may otherwise determine, any such committee may make rules for the conduct of its business, but unless otherwise provided by the Board of Directors or in such rules, its business shall be conducted so far as possible in the same manner as is provided by these Bylaws for the Board of Directors. All members of such committees shall hold such offices at the pleasure of the Board of Directors. The Board of Directors may abolish any such committee at any time. Any committee to which the Board of Directors delegates any of its powers or duties shall keep records of its meetings and shall report its action to the Board of Directors. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of the committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not he, she or they constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in place of any such absent or disqualified member.

SECTION 16. Compensation of Directors. Directors shall receive such compensation for their services as shall be determined by the Board of Directors, or a designated committee thereof, provided that directors who are serving the Corporation as employees and who receive compensation for their services as such, shall not receive any salary or other compensation for their services as directors of the Corporation.

ARTICLE III Officers

SECTION 1. Enumeration. The officers of the Corporation shall consist of a President, a Chief Executive Officer, a Secretary, a Treasurer and such other officers, including, without limitation, a Chairman of the Board of Directors, a Chief Financial Officer, and one or more Vice Presidents (including Executive Vice Presidents or Senior Vice Presidents), Assistant Vice Presidents and Assistant Secretaries, as the Board of Directors may determine.

SECTION 2. Election. At the regular annual meeting of the Board of Directors following the Annual Meeting, the Board of Directors shall elect the President, the Chief Executive Officer, the Secretary and the Treasurer. Other officers may be elected by the Board of Directors at such regular annual meeting of the Board of Directors or at any other regular or special meeting.

SECTION 3. Qualification. No officer need be a stockholder or a director. Any person may occupy more than one office of the Corporation at any time.

SECTION 4. Tenure. Except as otherwise provided by the Certificate or by these Bylaws, each of the officers of the Corporation shall hold office until the regular annual meeting of the Board of Directors following the next Annual Meeting and until his or her successor is elected and qualified or until his or her earlier resignation or removal.

SECTION 5. Resignation. Any officer may resign by delivering his or her written resignation to the Corporation addressed to the President or the Secretary, and such resignation shall be effective upon receipt, unless the resignation otherwise provides.

SECTION 6. Removal. Except as otherwise provided by law, the Board of Directors may remove any officer with or without cause by the affirmative vote of a majority of the directors then in office.

SECTION 7. Absence or Disability. In the event of the absence or disability of any officer, the Board of Directors may designate another officer to act temporarily in place of such absent or disabled officer.

SECTION 8. Vacancies. Any vacancy in any office may be filled for the unexpired portion of the term by the Board of Directors.

SECTION 9. Chairman of the Board. The Chairman of the Board, if one is elected, shall have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 10. Chief Executive Officer. The Chief Executive Officer shall have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 11. President. The President shall, subject to the direction of the Board of Directors, have such powers and shall perform such duties as the Board of Directors may from time to time designate.

SECTION 12. Vice Presidents and Assistant Vice Presidents. Any Vice President (including any Executive Vice President or Senior Vice President) and any Assistant Vice President shall have such powers and shall perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 13. Chief Financial Officer. The Chief Financial Officer, if one is elected, shall, subject to the direction of the Board of Directors and except as the Board of Directors or the Chief Executive Officer may otherwise provide, have general charge of the financial affairs of the Corporation and shall cause to be kept accurate books of account. He or she shall have such other duties and powers as may be designated from time to time by the Board of Directors or the Chief Executive Officer.

SECTION 14. Secretary and Assistant Secretaries. The Secretary shall record all the proceedings of the meetings of the stockholders and the Board of Directors (including committees of the Board of Directors) in books kept for that purpose. In his or her absence from any such meeting, a temporary secretary chosen at the meeting shall record the proceedings thereof. The Secretary shall have charge of the stock ledger (which may, however, be kept by any transfer or other agent of the Corporation). The Secretary shall have custody of the seal of the Corporation, and the Secretary, or an Assistant Secretary, shall have authority to affix it to any instrument requiring it, and, when so affixed, the seal may be attested by his or her signature or that of an Assistant Secretary. The Secretary shall have such other duties and powers as may be designated from time to time by the Board of Directors or the Chief Executive Officer. In the absence of the Secretary, any Assistant Secretary may perform his or her duties and responsibilities. Any Assistant Secretary shall have such powers and perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 15. Treasurer and Assistant Treasurers. The Treasurer shall have custody of all moneys and securities of the Corporation as are authorized and shall render from time to time an account of all such transactions. The Treasurer shall also perform such other duties and have such other powers as are commonly incident to the officer of Treasurer, or as may be designated from time to time by the Board of Directors or the Chief Executive Officer. In the absence of the Treasurer, any Assistant Treasurer may perform his or her duties and responsibilities. Any Assistant Treasurer shall have such powers and perform such duties as the Board of Directors or the Chief Executive Officer may from time to time designate.

SECTION 16. Other Powers and Duties. Subject to these Bylaws and to such limitations as the Board of Directors may from time to time prescribe, the officers of the Corporation shall each have such powers and duties as generally pertain to their respective offices, as well as such powers and duties as from time to time may be conferred by the Board of Directors or the Chief Executive Officer.

ARTICLE
IV. Capital Stock

SECTION 1. Certificates of Stock. The shares of the Corporation shall be represented by certificates in such form as may from time to time be prescribed by the Board of Directors. Such certificate shall be signed by the Chief Executive Officer, the President or a Vice President and by the Chief Financial Officer, the Treasurer, an Assistant Treasurer, the Secretary or an Assistant Secretary. The Corporation seal and the signatures by the Corporation's officers, the transfer agent or the registrar may be facsimiles. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed on such certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if he or she were such officer, transfer agent or registrar at the time of its issue. Every certificate for shares of stock which are subject to any restriction on transfer and every certificate issued when the Corporation is authorized to issue more than one class or series of stock shall contain such legend with respect thereto as is required by law. Notwithstanding anything to the contrary provided in these Bylaws, the Board of Directors of the Corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares (except that the foregoing shall not apply to shares represented by a certificate until such certificate is surrendered to the Corporation), and by the approval and adoption of these Bylaws the Board of Directors has determined that all classes or series of the Corporation's stock may be uncertificated, whether upon original issuance, re-issuance, or subsequent transfer.

SECTION 2. Transfers. Subject to any restrictions on transfer pursuant to applicable federal or state securities law or as otherwise agreed to in writing and unless otherwise provided by the Board of Directors, shares of stock that are represented by a certificate may be transferred on the books of the Corporation by the surrender to the Corporation or its transfer agent of the certificate theretofore properly endorsed or accompanied by a written assignment or power of attorney properly executed, with transfer stamps (if necessary) affixed, and with such proof of the authenticity of signature as the Corporation or its transfer agent may reasonably require. Shares of stock that are not represented by a certificate may be transferred on the books of the Corporation by submitting to the Corporation or its transfer agent such evidence of transfer and following such other procedures as the Corporation or its transfer agent may require.

SECTION 3. Record Holders. Except as may otherwise be required by law, by the Certificate or by these Bylaws, the Corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect thereto, regardless of any transfer, pledge or other disposition of such stock, until the shares have been transferred on the books of the Corporation in accordance with the requirements of these Bylaws.

SECTION 4. Record Date.

(a) In order that the Corporation may determine the stockholders entitled to notice of any meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall, unless otherwise required by law, not be more than sixty (60) nor less than ten (10) days before the date of such meeting. If the Board of Directors so fixes a date, such date shall also be the record date for determining the stockholders entitled to vote at such meeting unless the Board of Directors determines, at the time it fixes such record date, that a later date on or before the date of the meeting shall be the date for making such determination. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for determination of stockholders entitled to vote at the adjourned meeting, and in such case shall also fix as the record date for stockholders entitled to notice of such adjourned meeting the same or an earlier date as that fixed for determination of stockholders entitled to vote in accordance herewith at the adjourned meeting.

(b) In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall not be more than sixty (60) days prior to such action. If no such record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

SECTION 5. Replacement of Certificates. In case of the alleged loss, destruction or mutilation of a certificate of stock of the Corporation, a duplicate certificate may be issued in place thereof, upon such terms as the Corporation may prescribe.

ARTICLE V
Indemnification and Advancement

SECTION 1. Right to Indemnification. Each person who was or is made a party or is threatened to be made a party to or is otherwise involved (including, without limitation, as a witness) in any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that he or she is or was a director or an officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, or trustee of another corporation, or of a partnership, joint venture, trust or other enterprise, including service with respect to an employee benefit plan (hereinafter an "Indemnitee"), whether the basis of such proceeding is alleged action in an official capacity as a director, officer or trustee or in any other capacity while serving as a director, officer or trustee, shall be indemnified and held harmless by the Corporation to the fullest extent authorized by the DGCL, as the same exists or may hereafter be amended (but, in the case of any such amendment, only to the extent that such amendment permits the Corporation to provide broader indemnification rights than such law permitted the Corporation to provide prior to such amendment), against all expense, liability and loss (including attorneys' fees, judgments, fines, ERISA excise taxes or penalties and amounts paid in settlement) reasonably incurred or suffered by such Indemnitee in connection therewith; provided, however, that, except with respect to proceedings to enforce rights to indemnification or an advancement of expenses or as otherwise required by law, the Corporation shall not be required to indemnify or advance expenses to any such Indemnitee in connection with a proceeding (or part thereof) initiated by such Indemnitee unless such proceeding (or part thereof) was authorized by the Board of Directors.

SECTION 2. Right to Advancement of Expenses. In addition to the right to indemnification conferred in Article V, Section 1 of this Bylaw, an Indemnitee shall also have the right to be paid by the Corporation the expenses (including attorney's fees) incurred in defending any such proceeding in advance of its final disposition (an "advancement of expenses"); provided, however, that, if the DGCL requires, an advancement of expenses incurred by an Indemnitee in his or her capacity as a director or officer (and not in any other capacity in which service was or is rendered by such Indemnitee, including, without limitation, service to an employee benefit plan) shall be made only upon delivery to the Corporation of an undertaking (hereinafter an "undertaking"), by or on behalf of such Indemnitee, to repay all amounts so advanced if it shall ultimately be determined by final judicial decision from which there is no further right to appeal (hereinafter a "final adjudication") that such Indemnitee is not entitled to be indemnified for such expenses under this Section 2 or otherwise.

SECTION 3. Right of Indemnitees to Bring Suit. If a claim under Article V, Section 1 or 2 of this Bylaw is not paid in full by the Corporation within sixty (60) days after a written claim has been received by the Corporation, or if a claim for an advancement of expense is not paid in full within thirty (30) days after a statement or statements requesting such amounts to be advanced has been received by the Corporation, the Indemnitee may at any time thereafter bring suit against the Corporation to recover the unpaid amount of the claim. To the fullest extent permitted by law, if successful in whole or in part in any such suit, or in a suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Indemnitee shall also be entitled to be paid the expenses of prosecuting or defending such suit. In (i) any suit brought by the Indemnitee to enforce a right to indemnification hereunder (but not in a suit brought by the Indemnitee to enforce a right to an advancement of expenses) it shall be a defense that, and (ii) in any suit brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the Corporation shall be entitled to recover such expenses upon a final adjudication that, the Indemnitee has not met any applicable standard for indemnification set forth in the DGCL. Neither the failure of the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) to have made a determination prior to the commencement of such suit that indemnification of the Indemnitee is proper in the circumstances because the Indemnitee has met the applicable standard of conduct set forth in the DGCL, nor an actual determination by the Corporation (including its directors who are not parties to such action, a committee of such directors, independent legal counsel, or its stockholders) that the Indemnitee has not met such applicable standard of conduct, shall create a presumption that the Indemnitee has not met the applicable standard of conduct or, in the case of such a suit brought by the Indemnitee, be a defense to such suit. In any suit brought by the Indemnitee to enforce a right to indemnification or to an advancement of expenses hereunder, or brought by the Corporation to recover an advancement of expenses pursuant to the terms of an undertaking, the burden of proving that the Indemnitee is not entitled to be indemnified, or to such advancement of expenses, under this Article V or otherwise shall be on the Corporation.

SECTION 4. Indemnification of Employees and Agents of the Corporation. The Corporation may, to the extent authorized from time to time by the Board of Directors, grant rights to indemnification and to the advancement of expenses to any employee or agent of the Corporation to the fullest extent of the provisions of this Article V with respect to the indemnification and advancement of expenses of directors and officers of the Corporation.

SECTION 5. Non-Exclusivity of Rights. The rights to indemnification and to the advancement of expenses conferred in this Article V shall not be exclusive of any other right which any person may have or hereafter acquire under any statute, the Certificate as amended from time to time, these Bylaws, any agreement, any vote of stockholders or disinterested directors or otherwise.

SECTION 6. Insurance. The Corporation may maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise against any expense, liability or loss, whether or not the Corporation would have the power to indemnify such person against such expense, liability or loss under the DGCL.

SECTION 7. Indemnity Agreements. The Corporation may enter into indemnity agreements with any director or officer of the Corporation, with any employee or agent of the Corporation as the Board of Directors may designate and with any officer, director, employee or agent of subsidiaries as the Board of Directors may designate, such indemnity agreements to provide in substance that the Corporation will indemnify such persons as contemplated by this Article V, and to include any other substantive or procedural provisions regarding indemnification as are not inconsistent with the DGCL.

SECTION 8. Nature of Rights. The rights conferred upon Indemnitees in this Article V shall be contract rights and such rights shall continue as to an Indemnitee who has ceased to be a director, officer, employee, agent or trustee and shall inure to the benefit of the Indemnitee's heirs, executors and administrators. Any amendment, alteration or repeal of this Article V that adversely affects any right of an Indemnitee or its successors shall be prospective only and shall not limit, eliminate, or impair any such right with respect to any proceeding involving any occurrence or alleged occurrence of any action or omission to act that took place prior to such amendment, alteration or repeal. The Corporation's obligation, if any, to indemnify or to advance expenses to any Indemnitee who was or is serving at its request as a director, officer, employee or agent of another corporation, partnership, joint venture, trust, enterprise or nonprofit entity shall be reduced by any amount such Indemnitee may collect as indemnification or advancement of expenses from such other corporation, partnership, joint venture, trust, enterprise or non-profit enterprise.

SECTION 9. Severability. If any word, clause, provision or provisions of this Article V shall be held to be invalid, illegal or unenforceable for any reason whatsoever: (i) the validity, legality and enforceability of the remaining provisions of this Article V (including, without limitation, each portion of any section of this Article V containing any such provision held to be invalid, illegal or unenforceable, that is not itself held to be invalid, illegal or unenforceable) shall not in any way be affected or impaired thereby; and (ii) to the fullest extent possible, the provisions of this Article V (including, without limitation, each such portion of any section of this Article V containing any such provision held to be invalid, illegal or unenforceable) shall be construed so as to give effect to the intent manifested by the provision held invalid, illegal or unenforceable.

VI Miscellaneous Provisions

SECTION 1. Fiscal Year. The fiscal year of the Corporation shall be determined by the Board of Directors.

SECTION 2. Seal. The Board of Directors shall have power to adopt and alter the seal of the Corporation.

SECTION 3. Execution of Instruments. All deeds, leases, transfers, contracts, bonds, notes and other obligations to be entered into by the Corporation in the ordinary course of its business without director action may be executed on behalf of the Corporation by the Chairman of the Board, if one is elected, the President, the Chief Executive Officer, the Chief Financial Officer, if one is elected, the Secretary, the Treasurer or any other officer, employee or agent of the Corporation as the Board of Directors or appropriate committee of the Board may authorize.

SECTION 4. Voting of Securities. Unless the Board of Directors otherwise provides, Chairman of the Board, if one is elected, the President, the Chief Executive Officer, the Chief Financial Officer, if one is elected, the Secretary or the Treasurer may waive notice of and act on behalf of the Corporation, or appoint another person or persons to act as proxy or attorney in fact for the Corporation with or without discretionary power and/or power of substitution, at any meeting of stockholders or shareholders of any other corporation or organization, any of whose securities are held by the Corporation. The power so conferred upon such officers or other persons shall include, without limitation, the voting of any securities of any other entity held by the Corporation, including executing and delivery written consents with respect to such securities.

SECTION 5. Corporate Records. The original or attested copies of the Certificate, Bylaws and records of all meetings of the incorporators, stockholders and the Board of Directors and the stock transfer books, which shall contain the names of all stockholders, their record addresses and the amount of stock held by each, may be kept outside the State of Delaware and shall be kept at the principal office of the Corporation, at an office of its counsel, at an office of its transfer agent or at such other place or places as may be designated from time to time by the Board of Directors.

SECTION 6. Amendment of Bylaws.

(a) Amendment by Directors. Except as provided otherwise by law, these Bylaws may be amended or repealed by the Board of Directors.

(b) Amendment by Stockholders. These Bylaws may be amended or repealed at any Annual Meeting, or special meeting of stockholders called for such purpose in accordance with these By-Laws, by the affirmative vote of holders of at least a majority in voting power of the outstanding shares entitled to vote on such amendment or repeal, voting together as a single class. Notwithstanding the foregoing, stockholder approval shall not be required unless mandated by the Certificate or other applicable law.

SECTION 7. Notices. If mailed, notice to stockholders shall be deemed given when deposited in the mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation.

Adopted and effective as of May 25, 2017.

**AMENDMENT NO. 1 TO THE
AMENDED AND RESTATED
BYLAWS OF
CORBUS PHARMACEUTICAL HOLDINGS, INC.**

(the "Corporation")

Article VI of the Amended and Restated Bylaws of Corbus Pharmaceuticals Holdings, Inc., a Delaware corporation, as amended to date (the "Bylaws"), is hereby amended as follows:

A new Article VI, Section 8 is hereby added to the Bylaws, which shall read in its entirety as follows:

"SECTION 8. Federal Forum Selection. Subject to Article X of the Certificate of Incorporation, unless the Corporation consents in writing to the selection of an alternative forum, the federal district courts of the United States shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended. To the fullest extent permitted by law, any person or entity purchasing or otherwise acquiring or holding any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this Section 8."

Adopted by the Board of Directors effective as of March 14, 2021

**AMENDMENT NO. 2 TO THE
AMENDED AND RESTATED
BYLAWS OF
CORBUS PHARMACEUTICAL HOLDINGS, INC.**

(the "Corporation")

Article I of the Amended and Restated Bylaws of Corbus Pharmaceuticals Holdings, Inc., a Delaware corporation, as amended to date (the "Bylaws"), is hereby amended as follows:

Article I, Section 5 of the Bylaws be, and hereby is, amended to read in its entirety as follows:

"SECTION 5. Quorum. Except as specifically provided otherwise by the DGCL, the Certificate of Incorporation, or these Bylaws, the presence, in person or by proxy, of the holders of one-third (1/3) in voting power of the shares of capital stock issued and outstanding and entitled to vote at a meeting of stockholders (which, if the holders of Common Stock of the Corporation are entitled to vote on any matter submitted to stockholders at the meeting, shall include the holders of at least one-third (1/3) of the issued and outstanding shares of Common Stock of the Corporation entitled to vote at the meeting) shall constitute a quorum for the transaction of business at a meeting of stockholders. If less than a quorum is present at a meeting, the holders of voting stock representing a majority of the voting power present at the meeting or the presiding officer may adjourn the meeting from time to time, and the meeting may be held as adjourned without further notice, except as provided in Section 4 of this Article I. At such adjourned meeting at which a quorum is present, any business may be transacted which might have been transacted at the meeting as originally noticed. The stockholders present at a duly constituted meeting may continue to transact business until adjournment, notwithstanding the withdrawal of enough stockholders to leave less than a quorum."

Adopted by the Board of Directors effective as of October 11, 2022

DESCRIPTION OF CAPITAL STOCK

The following is a summary of information concerning capital stock of Corbus Pharmaceuticals Holdings, Inc. (“us,” “our,” “we” or the “Company”) and certain provisions of our amended and restated certificate of incorporation, as amended, and amended and restated bylaws, as amended, currently in effect. This summary does not purport to be complete and is qualified in its entirety by the provisions of our amended and restated certificate of incorporation, as amended (the “Certificate of Incorporation”), and amended and restated bylaws, as amended (the “Bylaws”), each previously filed with the Securities and Exchange Commission (“SEC”) and incorporated by reference as an exhibit to the Annual Report on Form 10-K, as well as to the applicable provisions of the Delaware General Corporation Law (the “DGCL”). We encourage you to read our Certificate of Incorporation, Bylaws and the applicable portions of the DGCL carefully.

General

Our authorized capital stock consists of:

- 300,000,000 shares of common stock, par value \$0.0001 per share; and
- 10,000,000 shares of preferred stock, par value \$0.0001 per share, of which 1,100,000 shares have been designated as Series A Preferred Stock.

As of December 31, 2022, 4,176,029 shares of common stock were issued and outstanding. At the time of this filing, 0 shares of Series A Preferred Stock were issued and outstanding.

Common Stock

Voting. The holders of our common stock are entitled to one vote for each share held of record on all matters on which the holders are entitled to vote (or consent pursuant to written consent). Directors are elected by a plurality of the votes present in person or represented by proxy and entitled to vote.

Dividends. The holders of our common stock are entitled to receive, ratably, dividends only if, when and as declared by our board of directors out of funds legally available therefor and after provision is made for each class of capital stock having preference over the common stock.

Liquidation Rights. In the event of our liquidation, dissolution or winding-up, the holders of common stock are entitled to share, ratably, in all assets remaining available for distribution after payment of all liabilities and after provision is made for each class of capital stock having preference over the common stock.

Conversion Right. The holders of our common stock have no conversion rights.

Preemptive and Similar Rights. The holders of our common stock have no preemptive or similar rights.

Redemption/Put Rights. There are no redemption or sinking fund provisions applicable to the common stock. All of the outstanding shares of our common stock are fully-paid and nonassessable.

Series A Preferred Stock

General; Transferability. Shares of Series A Preferred Stock will be uncertificated and represented in book-entry form. No shares of Series A Preferred Stock may be transferred by the holder thereof except in connection with a transfer by such holder of any shares of Common Stock held by such holder, in which case a number of eight thousandths (8/1,000ths) of a share of Series A Preferred Stock equal to the number of shares of Common Stock to be transferred by such holder will be automatically transferred to the transferee of such shares of Common Stock.

Voting Rights. Each share of Series A Preferred Stock will entitle the holder thereof to 62,500,000 votes per share (and, for the avoidance of doubt, each fraction of a share of Series A Preferred Stock will have a ratable number of votes). Thus, each 0.008 of a share of Series A Preferred Stock would entitle the holder thereof to 500,000 votes. The outstanding shares of Series A Preferred Stock will vote together with the outstanding shares of Common Stock of the Company as a single class exclusively with respect to any proposal to adopt an amendment to the Certificate of Incorporation to reclassify the outstanding shares of Common Stock into a smaller number of shares of Common Stock at a ratio specified in or determined in accordance with the terms of such amendment (the "Reverse Stock Split"). The Series A Preferred Stock will not be entitled to vote on any other matter, except to the extent required under the Delaware General Corporation Law.

Unless otherwise provided on any applicable proxy or ballot with respect to the voting on the Reverse Stock Split, the vote of each share of Series A Preferred Stock (or fraction thereof) entitled to vote on the Reverse Stock Split or any other matter brought before any meeting of stockholders held to vote on the Reverse Stock Split will be cast in the same manner as the vote, if any, of the share of Common Stock in respect of which such share of Series A Preferred Stock (or fraction thereof) was issued as a dividend is cast on the Reverse Stock Split or such other matter, as applicable, and the proxy or ballot with respect to shares of Common Stock held by any holder on whose behalf such proxy or ballot is submitted will be deemed to include all shares of Series A Preferred Stock (or fraction thereof) held by such holder. Holders of Series A Preferred Stock will not receive a separate ballot or proxy to cast votes with respect to the Series A Preferred Stock on the Reverse Stock Split or any other matter brought before any meeting of stockholders held to vote on the Reverse Stock Split.

Dividend Rights. The holders of Series A Preferred Stock, as such, will not be entitled to receive dividends of any kind.

Liquidation Preference. The Series A Preferred Stock will rank senior to the Common Stock as to any distribution of assets upon a liquidation, dissolution or winding up of the Company, whether voluntarily or involuntarily (a "Dissolution"). Upon any Dissolution, each holder of outstanding shares of Series A Preferred Stock will be entitled to be paid out of the assets of the Company available for distribution to stockholders, prior and in preference to any distribution to the holders of Common Stock, an amount in cash equal to \$0.0001 per outstanding share of Series A Preferred Stock.

Redemption. All shares of Series A Preferred Stock that are not present in person or by proxy at any meeting of stockholders held to vote on the Reverse Stock Split as of immediately prior to the opening of the polls at such meeting (the "Initial Redemption Time") will automatically be redeemed in whole, but not in part, by the Company at the Initial Redemption Time without further action on the part of the Company or the holder of shares of Series A Preferred Stock (the "Initial Redemption"). Any outstanding shares of Series A Preferred Stock that have not been redeemed pursuant to an Initial Redemption will be redeemed in whole, but not in part, (i) if such redemption is ordered by the Board in its sole discretion, automatically and effective on such time and date specified by the Board in its sole discretion or (ii) automatically upon the effectiveness of the amendment to the Certificate of Incorporation implementing the Reverse Stock Split.

Each share of Series A Preferred Stock redeemed in any redemption described above will be redeemed in consideration for the right to receive an amount equal to \$0.001 in cash for each ten whole shares of Series A Preferred Stock that are "beneficially owned" by the "beneficial owner" (as such terms are defined in the certificate of designation with respect to the Series A Preferred Stock (the "Certificate of Designation")) thereof as of immediately prior to the applicable redemption time and redeemed pursuant to such redemption. However, the redemption consideration in respect of the shares of Series A Preferred Stock (or fractions thereof) redeemed in any redemption described above: (i) will entitle the former beneficial owners of less than ten whole shares of Series A Preferred Stock redeemed in any redemption to no cash payment in respect thereof and (y) will, in the case of a former beneficial owner of a number of shares of Series A Preferred Stock (or fractions thereof) redeemed pursuant to any redemption that is not equal to a whole number that is a multiple of ten, entitle such beneficial owner to the same cash payment, if any, in respect of such redemption as would have been payable in such redemption to such beneficial owner if the number of shares (or fractions thereof) beneficially owned by such beneficial owner and redeemed pursuant to such redemption were rounded down to the nearest whole number that is a multiple of ten (such, that for example, the former beneficial owner of 25 shares of Series A Preferred Stock redeemed pursuant to any redemption will be entitled to receive the same cash payment in respect of such redemption as would have been payable to the former beneficial owner of 20 shares of Series A Preferred Stock redeemed pursuant to such redemption).

The Series A Preferred Stock is not be convertible into, or exchangeable for, shares of any other class or series of stock or other securities of the Company. The Series A Preferred Stock has no stated maturity and is not be subject to any sinking fund. The Series A Preferred Stock is not subject to any restriction on the redemption or repurchase of shares by the Company while there is any arrearage in the payment of dividends or sinking fund installments.

Anti-takeover Effects of Delaware Law and our Certificate of Incorporation and Bylaws

Our Certificate of Incorporation and Bylaws contain provisions that could have the effect of discouraging potential acquisition proposals or tender offers or delaying or preventing a change of control. They are also designed, in part, to encourage persons seeking to acquire control of us to negotiate first with our board of directors. These provisions are as follows:

- they provide that special meetings of stockholders may be called only by the board of directors acting pursuant to a resolution approved by the affirmative vote of a majority of the board of directors;
- they specifically deny the ability of stockholders to take action by written consent of the stockholders in lieu of a meeting;
- they do not include a provision for cumulative voting in the election of directors. Under cumulative voting, a minority stockholder holding a sufficient number of shares may be able to ensure the election of one or more directors. The absence of cumulative voting may have the effect of limiting the ability of minority stockholders to effect changes to the our board of directors; and
- they allow us to issue, without stockholder approval, up to 10,000,000 shares of preferred stock, with such designations, rights, and preferences as may be determined from time to time by our board of directors that could adversely affect the rights and powers of the holders of the common stock, including dividend, liquidation, conversion, voting, or other rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock could have the effect of restricting dividends on our common stock, diluting the voting power of our common stock, impairing the liquidation rights of our common stock, or delaying or preventing a change in control of our company, all without further action by our stockholders.

We are 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 period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is approved in the following prescribed manner:

- prior to the time of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the 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 number of shares outstanding (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; and
- on or subsequent to the time of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Generally, for purposes of Section 203, a “business combination” includes 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, within three years prior to the determination of interested stockholder status, owned 15% or more of a corporation’s outstanding voting securities.

Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol “CRBP.”

Transfer Agent and Registrar

The transfer agent and registrar for our common stock and Series A Preferred Stock is Continental Stock Transfer & Trust Company, LLC.

CERTAIN IDENTIFIED INFORMATION HAS BEEN EXCLUDED FROM THIS EXHIBIT BECAUSE IT IS BOTH (I) NOT MATERIAL AND (II) IS THE TYPE THAT THE COMPANY TREATS AS PRIVATE OR CONFIDENTIAL. THE REDACTED TERMS HAVE BEEN MARKED WITH THREE ASTERISKS [*]**

EXCLUSIVE LICENSE AGREEMENT

THIS EXCLUSIVE LICENSE AGREEMENT (this "Agreement"), dated as of February 12, 2023 (the "Effective Date"), is entered into by and between, on the one hand, CSPC Megalith Biopharmaceutical Co., Ltd., having a place of business at 519, Cangsheng Road, High-Tech Development Zone, Shijiazhuang, Hebei, China ("CSPC"), and, on the other hand, Corbus Pharmaceuticals, Inc., a Delaware corporation, having a place of business at 500 River Ridge Dr., Norwood, MA 02062 ("Corbus"). CSPC and Corbus each shall be referred to individually as a "Party" and collectively as the "Parties."

WHEREAS, CSPC owns or has rights in and to the Compound (as defined below); and

WHEREAS, Corbus desires to obtain an exclusive license under the Licensed IP Rights (as defined below) in the Field (as defined below) in the Collaborative Territory (as defined below) on the terms and conditions set forth below.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by both Parties, the Parties hereby agree as follows:

1. DEFINITIONS

For purposes of this Agreement, the terms with initial letters capitalized, whether used in the singular or the plural, defined in this Section 1 (Definitions) shall have the respective meanings set forth below or, if not listed below, the meanings designated in this Agreement (and derivative forms thereof shall be interpreted accordingly):

1.1 "Adverse Event" means any adverse medical occurrence in a patient or clinical investigation subject that is administered a pharmaceutical product, as designated in the United States of America under 21 CFR § 312.32 and any other Applicable Laws.

1.2 "Affiliate" means, as of the Effective Date and during the Term, with respect to any Person any other Person which directly or indirectly controls, is controlled by, or is under common control with, such Person, for so long as such control exists. For the purposes of this definition, a Person shall be regarded as in control of another Person if it owns, or directly or indirectly controls, more than fifty percent (50%) of the voting stock or other ownership interest of the other Person, or if it directly or indirectly possesses the power to direct or cause the direction of the management and policies of the other Person by any means whatsoever. Notwithstanding the foregoing, for purposes of this Agreement, [***] (as defined below) shall not be considered an Affiliate of CSPC at any time during the Term of this Agreement.

1.3“Applicable Laws” means any law, statute, ordinance, code, rule, regulation, policy or guideline that has been enacted or issued by a Governmental Authority and is in force as of the Effective Date or comes into force during the Term, in each case to the extent that the same are applicable to the performance by either of the Parties of their respective obligations under this Agreement.

1.4“Background Intellectual Property” means, with respect to a Party: (a) any and all Data and Technology, including any amendment, modification or improvement thereof, that is in-licensed, created, invented, conceived, first reduced to practice, or developed by or on behalf of such Party prior to the Effective Date of this Agreement, or is in-licensed, created, invented, conceived, first reduced to practice, or developed after the Effective Date of this Agreement independent of this Agreement without the use of, reliance on or access to the other Party’s Confidential Information; and (b) any and all Intellectual Property Rights in and to such Data and Technology.

1.5“Biologic License Application” or “BLA” means a Biologic License Application in the United States as described in Section 351(a) of the United States Public Health Service Act (“PHS Act”) or an abbreviated Biologic License Application as described in Section 351(k) of the PHS Act.

1.6“Biosimilar Product” means, with respect to a Licensed Product and on a country-by-country basis, any product that is not produced, licensed or owned by Corbus or any of its Affiliates (including a “generic product,” “biogeneric,” “follow-on biologic,” “follow-on biological product,” “follow-on protein product,” “similar biological medicinal product,” or “biosimilar product”) approved by way of an abbreviated regulatory mechanism by the relevant Regulatory Authority in a country in reference to such Licensed Product, that in each case: (a) is sold in the same country (or is commercially available in the same country via import from another country) as the applicable Licensed Product by any Third Party that is not a Sublicensee of Corbus or any of its Affiliates and that did not purchase such product in a chain of distribution that included Corbus or any of its Affiliates or Sublicensees; (b) has been granted Regulatory Approval with reference to, or in reliance on, in whole or in part, a prior Marketing Approval of such Licensed Product; and (c) has been granted Regulatory Approval as a biosimilar or interchangeable biological product with such Licensed Product by the applicable Regulatory Authority, in each case, as is necessary to permit substitution of such product for the Licensed Product under Applicable Laws in such country, including, with respect to the United States, to an Abbreviated New Drug Applications under Section 505(j) of the FD&C Act (21 USC 355(j)) or approved as a “Biosimilar Biologic Product” under Title VII, Subtitle A Biologics Price Competition and Innovation Act of 2009, Section 42 U.S.C. § 262, Section 351 of the PHS Act, or, outside the United States, in accordance with European Directive 2001/83/EC on the Community Code for medicinal products (Article 10(4) and Section 4, Part II of Annex I) and European Regulation EEC/2309/93 establishing the community procedures for the authorization and evaluation of medicinal products, each as amended, and together with all associated guidance, and any counterparts thereof or equivalent process inside or outside of the United States or European Union to the foregoing.

1.7“Calendar Quarter” means the respective periods of three (3) consecutive calendar months ending on March 31, June 30, September 30, and December 31.

1.8“Calendar Year” means each successive period of twelve (12) months commencing on January 1 and ending on December 31.

1.9“Clinical Trial” means any Phase 1 Clinical Trial, Phase 2 Clinical Trial, Phase 3 Clinical Trial or other (including a non-intervention study) clinical trial in humans to obtain information regarding a Licensed Product, including information relating to the safety, tolerability, pharmacological activity, pharmacokinetics, dose ranging, or efficacy of a Licensed Product.

1.10“CMC Activities” means chemistry, manufacturing, controls and related activities in support of Regulatory Submissions and Regulatory Approvals for the Licensed Products.

1.11“Collaborative Territory” means the United States, the EU-Plus Countries, United Kingdom, Canada, and Australia.

1.12“Combination Product” means any pharmaceutical product containing (a) a Licensed Product and (b) at least one other active pharmaceutical ingredient, whether in the same or different formulations, and whether sold as a fixed dose or as separate doses.

1.13“Commercialization” means, with respect to any product, any and all activities directed to marketing, advertising, promoting, distributing, importing, exporting, using, offering to sell, and selling or otherwise commercializing such product, including: pre-launch activities to prepare a market for potential sales, modeling and pharmaco-economic studies, epidemiological studies, governmental affairs, and public policy activities, patient services, patient advocacy engagement, and activities related to pricing and reimbursement, including seeking and maintaining any required Pricing Approvals and reimbursement approvals. For clarity, [***]. When used as a verb, “Commercialize” means to engage in Commercialization.

1.14“Commercially Reasonable Efforts” means, with respect to Corbus, that level of efforts and resources expended by Corbus, directly or through one (1) or more of its Affiliates or Sublicensees, consistent with the level of efforts and resources that is [***]. “Commercially Reasonable Efforts” shall be [***].

1.15“Competing Product” means any biologic product which contains an antibody drug conjugate that is solely Directed To the Target.

1.16“Compound” means (a) that antibody drug conjugate known as SYS6002, consisting of a novel monoclonal antibody Directed To the Target [***].

1.17“Control” or “Controlled” means, with respect to any Data and Technology, Patents, or other Intellectual Property Rights, the legal right (whether by ownership, license, or otherwise but without taking into account any rights granted by one Party to the other Party pursuant to this Agreement) of a Party to grant a license or a sublicense of or under such Data and Technology, Patents, or other Intellectual Property Rights to the other Party without breaching the terms of any agreement with a Third Party or misappropriating the proprietary or trade secret information of a Third Party.

1.18“Cover” means, with respect to a Licensed Patent in reference to a Licensed Product, that the manufacture, use, offer for sale, sale or import of the Licensed Product, absent a license to such Licensed Patent, would infringe a Valid Claim in such Licensed Patent; *provided, however*, that in determining whether a Valid Claim of a pending patent application within the Licensed Patents (which, for clarity, has been pending for a period of [***]) would be infringed, such Valid Claim shall be treated as if issued in the form then currently being prosecuted. “Covered” and “Covering” have the correlative meanings.

1.19“Created” means, with respect to any Data and Technology, made, created, authored, or invented (as determined based on United States laws of inventorship), as applicable.

1.20“CSPC Competitor” means a Third Party that: (a) [***]; or (b) [***].

1.21“CSPC Competitor Change of Control” means, with respect to Corbus, the occurrence of any one (1) of the following events: (a) a Third Party acquires, directly or indirectly, shares of Corbus representing fifty percent (50%) or more of the voting shares (where voting refers to being entitled to vote for the election of directors) then outstanding of Corbus; (b) Corbus consolidates with or merges into another corporation or entity, or any corporation or entity consolidates with or merges into Corbus, in either event pursuant to a transaction in which more than fifty percent (50%) of the voting shares of the acquiring or resulting entity outstanding immediately after such consolidation or merger are not held by the holders of the outstanding voting shares of Corbus (or of any Affiliate of Corbus) preceding such consolidation or merger; or (c) Corbus conveys, transfers or leases all or substantially all of its assets to a Third Party, only as long as in each case of (a) – (c) such acquiring or merging Third Party is a CSPC Competitor.

1.22“CSPC Group” means CSPC Pharmaceutical Group Limited, having a place of business at 3206, 32/F, Central Plaza, 18 Harbour Road, Wanchai, Hong Kong.

1.23“CSPC IND” means the Investigational New Drug Application No. 163526 for the purposes of obtaining permission to conduct Phase 1 Clinical Trial of the Compound in the United States submitted by CSPC.

1.24“Data and Technology” means all creations, inventions, discoveries, know-how, works of authorship, data, and other information, including study data, development data, information (including scientific, technical or regulatory information), methods, techniques, materials, technology, results, analyses, laboratory, safety, pharmacology, toxicology, chemistry, manufacturing and controls (CMC) data, manufacturing and formulation methodologies and techniques, formulas, recipes, test methodologies, quality systems information, efficacy studies and data, absorption, distribution, metabolism and excretion studies and data, and regulatory information, filings and supporting data.

1.25“Development” means any and all clinical drug development activities conducted before or after obtaining Marketing Approval that are reasonably related to or leading to the development, preparation, and submission of data and information to a Regulatory Authority for the purpose of obtaining, supporting or expanding Marketing Approval or to the appropriate body for obtaining, supporting or expanding Pricing Approval, including all activities related to pharmacokinetic profiling, design and conduct of clinical studies, regulatory affairs, statistical

analysis, report writing, and regulatory filing creation and submission (including the services of outside advisors and consultants in connection therewith). “Development” shall not include Manufacturing or Commercialization. When used as a verb, “Develop” means to engage in Development.

1.26“Directed To” means, with regard to any [***] or product, that such [***] or product: (a) binds specifically and directly to the Target; and (b) [***], as determined based on reasonable experimental data or generally accepted scientific literature, in either case available at the time of completion of preclinical development of such [***] or product.

1.27“Divestiture” means, with respect to a Competing Product of Corbus or the successor of Corbus in a CSPC Competitor Change of Control, the divestiture of such Competing Product through: (a) an outright sale or assignment of all rights in such Competing Product to a Third Party with no further material role, influence or authority of the applicable party, directly or indirectly, with respect to such Competing Product; or (b) the complete cessation of all Development, Manufacture, and Commercialization activities with respect to such Competing Product. When used as a verb, “Divest” and “Divested” means to cause or have caused a Divestiture.

1.28“EMA” means the European Medicines Agency or any successor entity thereto.

1.29“EU-Plus Countries” means the countries listed on Exhibit E (EU-Plus Countries).

1.30“Excluded Territory” means worldwide excluding the Collaborative Territory.

1.31“Executive Officer” means, with respect to CSPC, its Chief Executive Officer, and with respect to Corbus, its Chief Executive Officer, or, in either case, a designee with senior decision-making authority.

1.32“Exploitation” means any and all activities included in or directed to research, Development, Commercialization, use, offering for sale, sale, importing, or otherwise exploiting (but excluding any and all activities directed to Manufacturing or having Manufactured). When used as a verb, “Exploit” means to engage in Exploitation.

1.33“FDA” means the Food and Drug Administration of the United States, or the successor thereto.

1.34“Field” means the prevention and treatment of all oncology Indications in humans.

1.35“Finished Product” means a Licensed Product in its finished, labeled, assembled, and packaged form, ready for sale to the market or use in Clinical Trials.

1.36“First Commercial Sale” means, with respect to any Licensed Product or Biosimilar Product in any country in the Collaborative Territory, the first sale, transfer, or disposition for value or for end use or consumption of such Licensed Product or Biosimilar Product,

as applicable, after, to the extent applicable, the applicable Regulatory Approvals (if any) have been granted by the applicable Regulatory Authority in such country for such sale, transfer, or disposition.

1.37“Fully Burdened Manufacturing Cost” has the meaning as provided in the Master Supply Agreement.

1.38“GAAP” means the United States’ generally accepted accounting principles in effect from time to time.

1.39“Governmental Authority” means any federal, state, national, state, provincial, or local government, or political subdivision thereof, or any multinational organization or any authority, agency or commission entitled to exercise any administrative, executive, judicial, legislative, police, regulatory or taxing authority or power, or any court or tribunal (or any department, bureau or division thereof, or any governmental arbitrator or arbitral body).

1.40“Greater China” means the People’s Republic of China, including Hong Kong and the Macao Special Administrative Region, and Taiwan.

1.41“Improvements” means any and all improvements, modifications, or enhancements to, or derivatives of, the underlying Data and Technology of the Licensed IP Rights Created by or on behalf of any Party during the Term of this Agreement.

1.42“Indication” means any disease, disorder, syndrome, or condition, or manifestation of the foregoing. For the avoidance of doubt: (a) a disease or medical condition and all primary symptoms associated with such disease or medical condition (whether classified by severity or otherwise) shall be treated as the same Indication; and (b) different types of cancer shall be treated as different Indications.

1.43“Initiation” or “Initiated” means, with respect to a Clinical Trial of a Licensed Product, the first dosing of the first human subject pursuant to the protocol for such Clinical Trial.

1.44“Intellectual Property Rights” means any and all intellectual property and proprietary rights associated with Data and Technology arising under the laws of the United States and any other relevant jurisdiction, whether registrable or not, or comprising an application for registration or certification or Regulatory Approval, including, all: (a) rights with respect to patents and patent applications and divisionals, continuations, continuations-in-part, reissues, renewals, and extensions thereof and similar rights (including utility patent, design patent, plant patent, plant variety protection, and utility model rights) (collectively, “Patents”); (b) copyrights, copyright registrations, and applications for copyright registrations; (c) rights to authorship and moral rights; (d) invention rights, rights to trade secrets, and rights to know-how and expertise, discoveries, information, data and material, and all derivatives, modifications and improvements thereof; (e) rights to trademarks (including goodwill), databases, and mask works, and any applications, registrations, and other rights with respect thereto; and (f) all other intellectual property rights and all rights and forms of protection of a similar nature or having equivalent or similar effect to any of the foregoing.

1.45“Know-How” means Data and Technology that is not subject to an issued Patent or a published Patent application, and is not freely available for use without restriction by the public, and any associated documentation and any media on which the foregoing is recorded, and any tangible embodiment of the foregoing.

1.46“Licensed IP Rights” means, collectively, the Licensed Patents and the Licensed Know-How.

1.47“Licensed Know-How” means all trade secret and other Know-How rights owned or otherwise Controlled by CSPC or any of its Affiliates as of the Effective Date or during the Term in and to all data, information, compositions and other Data and Technology (including formulae, procedures, protocols, techniques, and results of experimentation and testing) which are necessary or reasonably useful for Corbus or any of its Sublicensees to use, Develop, Manufacture (only to the extent permitted under and in compliance with Section 11.3 (Master Supply Agreement) and Section 3.1.1 (Exclusive License)), Commercialize, or sell or seek Regulatory Approval to market a Licensed Product in the Field in the Collaborative Territory.

1.48“Licensed Patents” means any and all of the following: (a) the Patents listed on Exhibit B (Licensed Patents); (b) any other Patents which are owned by or otherwise Controlled by CSPC or any of its Affiliates as of the Effective Date or at any time during the Term in any country of the world that Cover a Licensed Product (subject to the full and timely payment of the pass-through fees as provided in Section 4.5 (Pass-Through Fees) below); (c) all divisions, continuations, continuations-in-part, that claim priority to, or common priority with, any of the Patents described in clauses (a) and (b) above or any of the Patent applications that resulted in any of the Patents described in clauses (a) and (b) above; and (d) all Patents that have issued or in the future issue from any of the foregoing Patent applications, including utility, model and design patents and certificates of invention, together with any reissues, renewals, extensions or additions thereto.

1.49“Licensed Product” means any product in any dosage form, formulation, presentation, or package configuration which is, incorporates or contains a Compound, whether alone or in combination with any other active ingredient.

1.50“Licensed Product CDx” means any companion developed by or for CSPC or Corbus or any of their respective Affiliates that is specifically for use in prescribing or monitoring use of a Licensed Product.

1.51“Licensed Product CDx IP” means all Intellectual Property Rights Controlled by CSPC or any of its Affiliates that are necessary or reasonably useful for the manufacture, use, offer for sale, sale, or import of any Licensed Product CDx solely in conjunction with the Development or Commercialization of any Licensed Product. Licensed Product CDx IP excludes any Intellectual Property Rights Controlled by CSPC or any of its Affiliates for which CSPC or such Affiliate would owe any money to a Third Party for the grant of the license in Section 3.8 (Non-Exclusive License to Licensed Product CDx IP) or Corbus’s exercise thereof.

1.52“Manufacturing” means, with respect to any product (including an active pharmaceutical ingredient and other material contained therein), any and all activities related to the

manufacture of such product, including qualification, validation and scale-up, pre-clinical, clinical and commercial manufacture, packaging, labeling, filing, finishing, assembly, processing, in-process and finished product testing, release of such product, ongoing stability tests, storage, shipping, supply or storage of such product (or any components or process steps involving such product or [***]), placebo or comparator agent, as the case may be, product characterization, technical support activities, and regulatory activities related to any of the foregoing. When used as a verb, “Manufacture” means to engage in Manufacturing.

1.53“Marketing Approvals” means, with respect to a Licensed Product, all approvals, licenses, registrations, or authorizations, including emergency use authorizations, of the Regulatory Authorities in a country that are necessary for the commercial marketing and sale of such Licensed Product in such country, including the approval of a BLA.

1.54“NDA” means a New Drug Application, Biologics License Application, Marketing Authorization Application, or similar application for Marketing Approval of a Licensed Product submitted to the FDA or other Regulatory Authority.

1.55“Net Sales” means, with respect to a Licensed Product, the total amount invoiced on sales of a Licensed Product in the Collaborative Territory (excluding any sales of any Licensed Product, or in any country, with respect to which the Royalty Term does not apply) by Corbus or any of its Affiliates or any of their Sublicensees (each, an “Invoicing Party”) to Third Parties, in bona fide arm’s length transactions, less the following deductions, in each case related to the Licensed Product and to the extent actually incurred, allowed, paid, accrued, or allocated in accordance with GAAP, consistently applied: [***]. For clarity, [***]. All of the deductions for Bad Debts shall not exceed an aggregate maximum of [***] of the total invoice price of each sale of the applicable Licensed Product. All of the deductions for Transportation-Related Charges shall not exceed an aggregate maximum of [***] of the total invoice price of each sale of the applicable Licensed Product.

“Net Sales” shall not include: (a) transfers or dispositions for charitable, promotional, pre-clinical, clinical, regulatory, or governmental purposes; or (b) sales of a Licensed Product between or among Corbus and its Affiliates or Sublicensees for the resale of such Licensed Product by the purchaser thereof to Third Parties (but the subsequent resale of such Licensed Product to a Third Party, including a bona-fide end user or customer of the Licensed Product shall be included in Net Sales).

In the event a Licensed Product is sold as part of a Combination Product in a country, the Net Sales for such Combination Product shall be calculated for each applicable Calendar Quarter as follows:

(a) If Corbus or any of its Affiliates or Sublicensees separately sells in such country or other jurisdiction, (A) a product containing as its sole active ingredient a Compound (the “Mono Product”) and (B) products containing as their sole active ingredients the other active ingredients in such Combination Product, the Net Sales attributable to such Combination Product shall be calculated [***].

(b) If Corbus or any of its Affiliates or Sublicensees separately sells in such country or other jurisdiction the Mono Product but does not separately sell in such country or other jurisdiction products containing as their sole active ingredients the other active ingredients in such Combination Product, the Net Sales attributable to such Combination Product shall be calculated [***].

(c) If Corbus or any of its Affiliates or Sublicensees do not separately sell in such country or other jurisdiction the Mono Product but do separately sell products containing as their sole active ingredients the other active ingredients contained in such Combination Product, the Net Sales attributable to such Combination Product shall be calculated [***].

If Corbus or any of its Affiliates or Sublicensees do not separately sell in such country or other jurisdiction both the Mono Product and the other active ingredient or ingredients in such Combination Product, the Net Sales attributable to such Combination Product shall be negotiated and determined by both Parties in good faith [***] based on the relative fair market value of such Mono Product and such other active ingredient or ingredients.

Corbus covenants that neither it nor any of its Affiliates or Sublicensees shall, when pricing a Licensed Product and any other product or active ingredient that are sold separately but used in combination, unfairly allocate the prices between such Licensed Product and such other product or active ingredient and Corbus and its Affiliates and Sublicensees shall not manipulate the prices of such Licensed Product or any of such other product or active ingredient to avoid or reduce royalty payments or obligations that would otherwise be due for sales of such Licensed Product in combination form or otherwise.

1.56“New Patent Application” means: (a) any priority patent application; and (b) any follow-on patent application from a priority application that includes new subject matter not found in the priority application or any earlier filed follow-on patent application from the priority application.

1.57“Non-Royalty Sublicense Income” means any payments or other consideration, including non-cash consideration, that Corbus or any of its Affiliates receives in consideration for a Sublicense, other than [***]. If Corbus or any of its Affiliates receives non-cash consideration in consideration for a Sublicense (*e.g.*, equity interests), then the payment to CSPC pursuant to Section 4.4 (Non-Royalty Sublicense Income) with respect to such non-cash consideration shall be based on the market value of such consideration calculated at the time of the transaction and assuming an arm’s length transaction, except that if the non-cash consideration is a freely transferable security and to the extent permitted by Applicable Laws, CSPC may agree for Corbus to make the payment to CSPC pursuant to Section 4.4 (Non-Royalty Sublicense Income) in the same form in which the payment was received by Corbus. If Corbus or any of its Affiliates is involved in a transaction not at arm’s length with a Sublicensee, Non-Royalty Sublicense Income shall be calculated, respectively, based on the fair market value of such consideration or transaction calculated at the time of the transaction and assuming an arm’s length transaction made in the ordinary course of business. For clarity, [***].

1.58[***].

1.59“Person” means an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, pool, syndicate, sole proprietorship, unincorporated organization, Governmental Authority, or any other form of entity not specifically listed herein.

1.60“Phase 1 Clinical Trial” means a human clinical trial of a Licensed Product in patients and/or healthy volunteers with the primary objective of characterizing its safety, tolerability, and pharmacokinetics and identifying a recommended dose and regimen for future studies as described in US 21 CFR § 312.21(a) or a comparable clinical trial prescribed by the relevant Regulatory Authority in a country other than the United States. The Licensed Product can be administered to patients as a single agent or in combination with other investigational or marketed agents and a Phase 1 Clinical Trial shall be deemed commenced when Initiated.

1.61“Phase 2 Clinical Trial” means a human clinical trial in any country that is intended to initially evaluate the effectiveness of a Licensed Product for a particular Indication or Indications in patients with the disease or Indication under study or would otherwise satisfy requirements of U.S 21 CFR § 312. 21(b) or its foreign equivalent. The Licensed Product can be administered to patients as a single agent or in combination with other investigational or marketed agents and a Phase 2 Clinical Trial shall be deemed commenced when Initiated.

1.62“Phase 3 Clinical Trial” means a human clinical trial in any country, the results of which could be used to establish safety and efficacy of a Licensed Product as a basis for an NDA or would otherwise satisfy requirements of U.S 21 CFR § 312. 21(c), or its foreign equivalent. The Licensed Product can be administered to patients as a single agent or in combination with other investigational or marketed agents and a Phase 3 Clinical Trial shall be deemed commenced when Initiated.

1.63“Pricing Approvals” means such governmental approval, agreement, determination, or decision establishing prices for a Licensed Product that can be charged or reimbursed in regulatory jurisdictions where the applicable Governmental Authorities approve or determine the price or reimbursement of pharmaceutical products.

1.64“Regulatory Approvals” means, collectively, any and all approvals (including supplements, amendments, pre- and post-approvals, and Pricing Approvals), licenses, registrations, permits, notifications, and authorizations (including marketing and labeling authorizations) or waivers of any Regulatory Authority that are necessary for the testing, research, development, registration, manufacture (including formulation), use, storage, import, export, transport, promotion, marketing, distribution, offer for sale, sale, or other commercialization of a pharmaceutical product (including any Licensed Product) in any country or jurisdiction.

1.65“Regulatory Authority” means any Governmental Authority, including the FDA, EMA, or any health regulatory authority in any country or jurisdiction that is a counterpart to the foregoing agencies, in each case, that holds responsibility for the development, manufacture, distribution, importation, exportation and commercialization of, and the granting of Regulatory Approval for, a pharmaceutical product in such country or jurisdiction.

1.66“Regulatory Exclusivity” means any exclusive marketing rights or data exclusivity rights (other than any issued and unexpired Patents) conferred by any Regulatory Authority with respect to a Licensed Product in a country or jurisdiction in the Collaborative Territory that prohibits the Commercialization of a Biosimilar Product of such Licensed Product, including orphan drug exclusivity, pediatric exclusivity, new chemical exclusivity, or data exclusivity.

1.67“Regulatory Submissions” means applications for Regulatory Approvals, notifications, and other submissions made to or with a Regulatory Authority that are necessary or reasonably desirable to Develop, Manufacture, or Commercialize a Licensed Product in a particular country, whether obtained before or after a Regulatory Approval in the country. Regulatory Submissions include investigational new drug applications, BLAs and NDAs, and amendments and supplements to any of the foregoing and their foreign counterparts, applications for Pricing Approvals and reimbursement approvals, and all proposed labels, labeling, package inserts, monographs, and packaging for a Licensed Product in a particular country.

1.68“Right of Reference” means as that term is defined in US 21 CFR §314. 3(b) or any analogous Applicable Laws recognized outside of the United States.

1.69“Royalty Term” means, with respect to a Licensed Product and on a country-by-country basis, the period commencing upon the First Commercial Sale of such Licensed Product in such country and ending upon the later of: (a) the expiration or abandonment of the last-to-expire Valid Claim of a Licensed Patent in such country Covering such Licensed Product; (b) ten (10) years after the date of First Commercial Sale in such country; and (c) expiration of the Regulatory Exclusivity for such Licensed Product in the applicable country.

1.70“Segregate” means, with respect to a Competing Product, to segregate the Development, Manufacture, and Commercialization activities relating to such Competing Product from the Development, Manufacture, and Commercialization activities with respect to the Licensed Products under this Agreement, including ensuring that: (a) no personnel involved in performing the Development, Manufacture, or Commercialization, as applicable, of such Competing Product have access to non-public plans or non-public information relating to the Development, Manufacture or Commercialization of the Licensed Products or any other relevant Confidential Information (as defined in Section 12.1 (Confidential Information) below) of Corbus or CSPC; and (b) no personnel involved in performing the Development, Manufacture or Commercialization of Licensed Products have access to non-public plans or non-public information relating to the Development, Manufacture, or Commercialization of such Competing Product.

1.71“Sublicense” means: (a) any right granted, license given or agreement entered into by Corbus to or with any other Person or entity, under or with respect to or permitting any Exploitation of any of the Licensed IP Rights (but excluding arms-length distributors and Third Parties conducting research or development or service providers providing manufacturing or clinical activities); (b) any option or other right granted by Corbus to any other Person or entity to negotiate for or receive any of the rights described under clause (a); or (c) any standstill or similar obligation undertaken by Corbus toward any other Person or entity not to grant any of the rights described in clause (a) or (b) to any Third Party; in each case regardless of whether such grant of rights, license given, or agreement entered into is referred to or is described as a sublicense.

1.72“Sublicensee” means any Person granted a Sublicense.

1.73“Target” means Nectin-4.

1.74“Third Party” means any Person other than CSPC, Corbus, and their respective Affiliates.

1.75“United States” means the United States of America (including the states and the District of Columbia), its territories, its possessions, and other areas subject to its jurisdiction (including Puerto Rico and U.S. military bases abroad).

1.76“Upstream License Agreement” means [***].

1.77“Valid Claim” means: (a) a claim of an issued and unexpired patent included within the Licensed Patents, which has not been held permanently revoked, unenforceable, or invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal, and which has not been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise; and (b) a claim of any patent application within the Licensed Patents that is being prosecuted in good faith and which has not been abandoned or finally disallowed without the possibility of appeal or re-filing of the application.

2. REPRESENTATIONS, WARRANTIES AND COVENANTS

2.1Mutual Representations and Warranties. Each Party hereby represents, warrants, and covenants to the other Party as follows:

2.1.1Such Party is a corporation duly organized, validly existing, and in good standing under the laws of the jurisdiction in which it is incorporated;

2.1.2such Party: (a) has the corporate power and authority and the legal right to enter into this Agreement and to perform its obligations hereunder (including, in the case of CSPC, to cause its Affiliates to grant the licenses granted hereunder on behalf of its Affiliates, to comply with the provisions of Section 3.5 (Non-Compete) and to transfer the CSPC IND to Corbus); and (b) has taken all necessary corporate actions on its part to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder. This Agreement has been duly executed and delivered on behalf of such Party, and constitutes a legal, valid, and binding obligation, enforceable against such Party in accordance with its terms;

2.1.3all necessary consents, approvals and authorizations of all Governmental Authorities and other Persons required to be obtained by such Party in connection with this Agreement have been obtained;

2.1.4the execution and delivery of this Agreement and the performance of such Party’s obligations hereunder: (a) do not conflict with or violate any requirement of Applicable Laws; and (b) do not conflict with, or constitute a default under, any contractual obligation of it;

2.1.5 such Party shall, and such Party hereby covenants to the other Party that it shall, perform its activities pursuant to this Agreement in compliance with Applicable Laws, in each case as applicable under the laws and regulations of the country and the state and local government wherein such activities are conducted and shall at all times comply (and shall ensure compliance by any of its subcontractors) with all applicable national, federal, state and local laws, regulations and ordinances in performing its obligations under this Agreement; and

2.1.6 such Party is not debarred under the United States Federal Food, Drug and Cosmetic Act or comparable Applicable Laws and it does not, and shall not during the Term, employ or use the services of any Person or entity who is debarred, in connection with the Development, Manufacture, or Commercialization of the Licensed Products. If either Party becomes aware of the debarment or threatened debarment of any Person or entity providing services to such Party, including the Party itself and its Affiliates or Sublicensees, which directly or indirectly relate to activities under this Agreement, the other Party shall be immediately notified in writing.

2.2 **CSPC Representations and Warranties.** CSPC hereby further represents and warrants as of the Effective Date (and, where expressly provided in the applicable provision, covenants with respect to all periods thereafter during the Term) to Corbus that:

2.2.1 CSPC or its Affiliates are (and at all times during the Term shall be) the sole owner of or otherwise have the right to grant all rights and licenses under the Licensed IP Rights and the Licensed Product CDx IP it purports to grant to Corbus under this Agreement, and as of the Effective Date, neither CSPC or any of its Affiliates (a) has assigned, licensed, transferred, or encumbered (or will assign, license, transfer, or encumber) any of the Licensed IP Rights or the Licensed Product CDx IP in a manner inconsistent with its obligations hereunder; or (b) has sent any notice to any Third Party claiming any infringement or misappropriation of the Licensed IP Rights.

2.2.2 **Exhibit B** (Licensed Patents) sets forth an accurate and complete list of all Licensed Patents that exist as of the Effective Date, and indicates for each Patent the Person that owns such Patent.

2.2.3 As of the Effective Date, to the knowledge of CSPC, there are no pending inter partes reviews, post-grant reviews, interferences, re-examinations, or oppositions involving the Licensed Patents that are in or before any patent authority (or other Governmental Authority performing similar functions), or written claims or assertions received by CSPC or any of its Affiliates regarding the inventorship of any invention claimed in such Patent or alleging that additional or alternative inventors should be listed.

2.2.4 As of the Effective Date, none of the inventions claimed by the Licensed Patents are a “subject invention” as that term is described in 35 U.S.C. Section 201(e).

2.2.5 As of and prior to the Effective Date: (a) neither CSPC nor any of its Affiliates has received any claims or assertions in writing that CSPC’s use of the Compound, CSPC’s exercise of any of the Licensed IP Rights, or CSPC’s Exploitation of any Licensed Product does or may infringe, misappropriate, or otherwise violate any Intellectual Property Right of any

Third Party and (b) neither CSPC nor any of its Affiliates is aware of any Intellectual Property Right that is or may be infringed, misappropriated, or otherwise violated by CSPC's use of the Compound, CSPC's exercise of any of the Licensed IP Rights, or CSPC's Exploitation of any Licensed Product.

2.2.6As of the Effective Date (a) neither CSPC nor any of its Affiliates has submitted any Regulatory Submission with respect to a Licensed Product in the Field in the Collaborative Territory, other than the CSPC IND; (b) CSPC has made available to Corbus true, correct, and complete copies of the CSPC IND and all correspondence with the FDA related thereto; and (c) to the knowledge of CSPC, neither CSPC nor any of its Affiliates, nor any of its or their respective officers, employees, or agents, has made an untrue statement of material fact or fraudulent statement to the FDA with respect to the CSPC IND or failed to disclose a material fact required to be disclosed to the FDA with respect to the CSPC IND.

2.2.7As of the Effective Date, this Agreement conforms to the requirements of the Upstream License Agreement with respect to the rights to grant a sublicense to Corbus under the Upstream License Agreement.

2.3 Certain Covenants Regarding Upstream License Agreement

2.3.1CSPC shall make any and all payments that become due under the Upstream License Agreement in accordance with the terms of the Upstream License Agreement.

2.3.2CSPC is in compliance in all material respects with the Upstream License Agreement, and, to CSPC's knowledge, the other party to the Upstream License Agreement is not in breach in any respect of the Upstream License Agreement.

2.3.3In the event that CSPC receives a notice or other communication alleging it is in breach (including a notice or other communication threatening termination) of the Upstream License Agreement which may affect the rights granted to Corbus under this Agreement, CSPC shall promptly provide Corbus with a copy of such notice. Without limiting any other right or remedy of Corbus under this Agreement, in the event that CSPC fails to perform any of its obligations under the Upstream License Agreement, CSPC shall seek to cure such breach and take any other steps as are required to ensure that the rights granted to Corbus under this Agreement are not adversely affected.

2.3.4CSPC shall not agree to any amendment or other modification (including termination) to the Upstream License Agreement in a manner that adversely affects the rights sublicensed to Corbus under this Agreement.

3. LICENSE GRANT

3.1 Licensed IP Rights

3.1.1Exclusive License. CSPC (on behalf of itself and each of its Affiliates, including CSPC Zhongqi) hereby grants to Corbus an exclusive (even as to CSPC and its Affiliates, subject to the retained rights of CSPC in Section 3.2 (Rights Retained by CSPC)), royalty-bearing, non-transferable (except in accordance with Section 18.5 (Assignment)) license

(with the right to grant Sublicenses through multiple tiers in accordance with Section 3.1.2 (Sublicenses) below) under the Licensed IP Rights to Exploit Licensed Products in the Field in the Collaborative Territory (the “Exclusive License”). Upon Corbus’s obtaining the right to Manufacture the Licensed Products, whether by itself or through its Affiliate or a Third Party manufacturer in accordance with Section 11.3 (Master Supply Agreement) and the Master Supply Agreement, the Exclusive License shall be automatically extended to include the right of Corbus to Manufacture and have Manufactured Licensed Products in the Field in the Collaborative Territory. Notwithstanding the foregoing, upon mutual written agreement of the Parties, the foregoing license shall be extended to permit Corbus to conduct Clinical Trials for purposes of Developing the Licensed Products outside of the Collaborative Territory for Commercialization in the Field in the Collaborative Territory.

3.1.2 Sublicenses

(a) Sublicense Grant

(i) Corbus may grant Sublicenses (with or without the right to grant further sublicenses through multiple tiers), in whole or in part, to an Affiliate or a Third Party under the Exclusive License granted in Section 3.1.1 (Exclusive License) without the consent of CSPC except that without the written prior consent of CSPC, Corbus shall not Sublicense or grant any of its rights licensed under this Agreement without the prior written consent of CSPC, which shall not be unreasonably withheld, conditioned, or delayed, (A) [***] or (B) [***]. For purposes of this provision, “[***]” means any [***] any potential Sublicense contemplated by Corbus pursuant to this Section 3.1.2(a) (Sublicense Grant).

(ii) Corbus shall: (i) provide CSPC with (A) prompt notice of any such Sublicenses that it intends to grant, identifying the potential Sublicensee and the scope of such potential Sublicensee’s rights or responsibilities and (B) a copy of the executed version of each Sublicense agreement entered into by Sublicensee; and (ii) be and remain responsible to CSPC for the compliance of each Sublicensee with the applicable terms and conditions hereunder.

(b) Sublicense Agreements. Corbus shall enter into Sublicenses pursuant to written agreements between Corbus and the applicable Sublicensee, which shall be subject and subordinate to the terms and conditions of this Agreement. Such Sublicense agreements shall be consistent with the terms and conditions of this Agreement and shall contain, among other things, the following:

(i) all provisions necessary to ensure Corbus’s ability to perform its obligations under this Agreement;

(ii) a provision clarifying that, in the event of termination of the Exclusive License set forth in Section 3.1.1 (Exclusive License) (in whole or in part (*e.g.*, termination in a particular country)), any existing Sublicense agreement shall terminate to the extent of such terminated license; *provided, however*, that such Sublicensee shall have the right to enter into a direct license with CSPC under the terms set forth in Section 14.7 (Effect of Expiration or Termination) so long as such Sublicensee is in good standing under such Sublicense agreement and has not otherwise caused a material breach under this Agreement;

(iii) a provision clarifying that the Sublicensee shall only be entitled to sublicense its rights under such Sublicense agreement on the terms set forth in this Section 3.1.2 (Sublicenses); and

(iv) a provision that any permitted assignee agrees in writing to be bound by the terms of such Sublicense agreement.

(c) Delivery of Sublicense Agreement. Corbus shall furnish CSPC with a fully executed copy of any Sublicense agreement, promptly after its execution.

(d) Breach by Sublicensee. Corbus shall be responsible for any breach of a Sublicense agreement by any Sublicensee that results in, or would have constituted, a material breach of this Agreement had it been an act or omission by Corbus. Corbus shall either (i) cure or cause the Sublicensee to cure such breach and/or to exercise remedies available to Corbus under such Sublicense agreement or (ii) enforce its rights by terminating the Sublicense agreement in accordance with the terms thereof.

3.1.3 Subcontractors. Corbus may appoint distributors and engage subcontractors (including contract research organizations) for the purpose of exercising Corbus's rights under the Exclusive License; *provided, however*, that Corbus shall enter into agreements with such distributors and subcontractors which contain all provisions necessary to ensure Corbus's ability to perform its obligations under this Agreement and in compliance with this Agreement.

3.2 Rights Retained by CSPC. Except for the rights and licenses specified in Section 3.1 (Licensed IP Rights), no license or other rights are granted to Corbus under any intellectual property of CSPC, whether by implication, estoppel, or otherwise. Notwithstanding anything to the contrary in this Agreement: (a) CSPC may use and permit others to use the Licensed IP Rights for any research, development, commercial, or other purposes outside the Collaborative Territory or outside the Field; (b) CSPC may, upon mutual written agreement of the Parties, conduct Clinical Trials for purposes of Developing the Licensed Products inside the Collaborative Territory for Commercialization outside the Collaborative Territory or outside the Field; and (c) CSPC retains the exclusive (to the extent provided in Section 11 (Manufacturing)) right, on behalf of itself and its Affiliates, to use the Licensed IP Rights to Manufacture the Compound and the Licensed Products in the Field inside and outside the Collaborative Territory, including for (i) performance of its obligations under this Agreement and the Master Supply Agreement (as defined in Section 11.3 (Master Supply Agreement) below) and (ii) the supply of the Compound and the Licensed Products for the Collaborative and Excluded Territory. Unless otherwise agreed in writing by CSPC pursuant to Section 11.3 (Master Supply Agreement), the Exclusive License does not include the right of Corbus to Manufacture the Licensed Products, including the Compound, by itself or through any of its Affiliates or a Third Party.

3.3 Technical Assistance. Following the Effective Date, CSPC shall provide such technical assistance to Corbus as Corbus reasonably requests regarding the Licensed IP Rights and Compound. CSPC shall provide such technical assistance at [***] for the first [***] after the Effective Date, and after that at Corbus's reasonable expense.

3.4 License to CSPC. Corbus hereby grants to CSPC a non-exclusive license to use any data and results generated by Corbus in the research and Development of the Compound that are owned by Corbus pursuant to this Agreement solely for the purpose of CSPC's Development, Manufacturing, and Commercialization of the Compound in the Excluded Territory.

3.5 Non-Compete. During the Term of this Agreement: (a) CSPC and each of its Affiliates shall not, by itself or with or through any Third Party, whether through licensing or otherwise, [***]; and (b) Corbus and each of its Affiliates shall not, by itself or with or through any Third Party, directly or indirectly, [***]. Notwithstanding the above and anything to the contrary in this Agreement, the foregoing Section 3.5 (Non-Compete) does not restrict CSPC or any of its Affiliates [***] from Exploiting, or Manufacturing or licensing, or otherwise authorizing or assisting any Third Party to Exploit or Manufacture any product that consists of a [***] Directed To the Target (i.e., where the [***] is [***]). As long as CSPC Group or any of its Affiliates [***] during the Term.

3.6 No Implied License. Except as explicitly set forth in this Agreement, neither Party shall be deemed by estoppel or implication to have granted the other Party any license or other right to any Data and Technology or any Intellectual Property Rights of such Party.

3.7 Patent Marking. Corbus shall, and shall require its Affiliates and Sublicensees, to legibly mark, (i) each of the Licensed Products made, used, offered for sale or sold, or (ii) its containers, and the product brochures and promotional and sales materials for the Licensed Products, with appropriate patent numbers or indicia in accordance with each country's patent marking laws, as applicable, including Title 35, U.S. Code. Corbus shall provide CSPC with representative samples of Licensed Products upon CSPC's reasonable request to ensure compliance with this provision.

3.8 Non-Exclusive License to Licensed Product CDx IP. CSPC (on behalf of itself and each of its Affiliates, including [***]) hereby grants to Corbus a non-exclusive, royalty-free, non-transferable (except in accordance with Section 18.5 (Assignment)) license (with the right to grant sublicenses through multiple tiers) under the Licensed Product CDx IP to make, have made, use, sell, offer for sale or import any Licensed Product CDx solely in conjunction with the Development or Commercialization of a Licensed Product in the Field in the Collaborative Territory. For clarity, [***].

4. FINANCIAL CONSIDERATIONS

4.1 Upfront Fee. Corbus shall pay to CSPC a total upfront non-creditable and non-refundable license fee of seven million five hundred thousand United States dollars (US\$7,500,000) (the "Upfront Fee") in accordance with the following schedule:

(a) Within [***] after the Effective Date, in consideration of the grant of the Exclusive License, Corbus shall pay to CSPC five million United States dollars (US\$5,000,000).

(b) On or before the eighteen (18) month anniversary of the Effective Date, Corbus shall pay to CSPC two million five hundred thousand United States dollars (US\$2,500,000).

4.2 Royalties

4.2.1 Royalty Rates. Subject to the remaining provisions of this Section 4.2 (Royalties), during the applicable Royalty Term for a Licensed Product, subject to the terms and conditions of this Agreement, Corbus shall pay to CSPC royalties on the aggregate Net Sales of all Licensed Products sold (a) in the United States in a given Calendar Year or (b) in the Collaborative Territory excluding the United States in a given Calendar Year (as applicable), calculated by multiplying the applicable royalty rate set forth below by such Net Sales. The applicable royalty rates set forth in the table below shall apply only to that portion of the Net Sales during a given Calendar Year that falls within the indicated range.

Aggregate Annual Net Sales of all Licensed Products in the Collaborative Territory	Royalty Rate
<i>Sales in the United States</i>	
[***]	[***]%
[***]	[***]%
[***]	[***]%
<i>Sales in the Collaborative Territory but excluding the United States</i>	
[***]	[***]%
[***]	[***]%
[***]	[***]%

4.2.2 No Valid Claim. In the event that, during the Royalty Term in a country, there is no Valid Claim of a Licensed Patent Covering a given Licensed Product in such country, then the royalty rate applicable to Net Sales of such Licensed Product in such country set forth in the table in Section 4.2.1 (Royalty Rates) above shall be reduced by [***] relative to the royalty rate applicable if there had been such a Valid Claim in such country.

4.2.3 Third Party Royalties. If Corbus or any Sublicensee enters into an agreement with a Third Party in order to obtain a license or other right under any Intellectual Property Rights with respect to a Licensed Product in any country and is required to pay royalties based on sales of such Licensed Product under such agreement, then Corbus shall have the right to credit [***] of all royalties and other amounts paid under such agreement against the royalties owing to CSPC under Section 4.2.1 (Royalty Rates) with respect to sales of such Licensed Product in such country; *provided, however*, that Corbus shall not reduce the amount of the royalties paid to CSPC under Section 4.2.1 (Royalty Rates) by reason of this Section 4.2.3 (Third Party Royalties), with respect to sales of such Licensed Product in such country, to less than [***] of the royalties that would otherwise be due under Section 4.2.1 (Royalty Rates).

4.2.4 Biosimilar Entry. If a Biosimilar Product to a Licensed Product is sold in a country in the Collaborative Territory in any Calendar Quarter during the Royalty Term for such Licensed Product in such country, then on a Licensed Product-by-Licensed Product basis, following the First Commercial Sale of a Biosimilar Product in such country in a Calendar Quarter once (a) Net Sales of the applicable Licensed Product in such country decline by the percentage described below relative to the average quarterly Net Sales of the Licensed Product in such country achieved in four (4) Calendar Quarters immediately to such launch of such Biosimilar Product; and (b) all Biosimilar Products in such country have a combined market share of [***] or more of the

total market (i.e., Licensed Product and Biosimilar Products combined) in the Field in such country, then the royalty rates applicable to Net Sales of the Licensed Product in such country set forth in the table in Section 4.2.1 (Royalty Rates) shall permanently be reduced as follows:

Decline in Net Sales	Royalty Reduction
[***]%	[***]
[***]%	[***]
[***]%	[***]

4.2.5 Royalty Floor. Notwithstanding Sections 4.2.2 (No Valid Claim), 4.2.3 (Third Party Royalties), and 4.2.4 (Biosimilar Entry), with respect to any Licensed Product in any Calendar Quarter, the royalties that would otherwise have been due under Section 4.2.1 (Royalty Rates) with respect to Net Sales of such Licensed Product in the applicable country(ies) during such Calendar Quarter shall not be reduced by more than [***] as a result of such reductions.

4.2.6 Patent Challenge. Subject to this Section 4.2.6 (Patent Challenge), if Corbus or any of its Affiliates or their Sublicensees (each, a “Challenging Party”) commences an action in which it challenges the validity, enforceability or scope of any of the Licensed Patents (a “Challenge Proceeding”) and if CSPC does not terminate this Agreement in accordance with Section 14.2.1 (Patent Challenge), the royalty rates specified in Section 4.2.1 (Royalty Rates) shall be [***] with respect to Net Sales with respect to the Licensed Products invoiced during the pendency of such Challenge Proceeding. If the outcome of such Challenge Proceeding is a determination against the Challenging Party: (a) the royalty rate specified in Section 4.2.1 (Royalty Rates) shall remain at such [***] rate; and (b) Corbus shall reimburse CSPC for all expenses incurred by CSPC (including reasonable attorneys’ fees) in connection with such Challenge Proceeding. If the outcome of such Challenge Proceeding is a determination in favor of the Challenging Party, Corbus shall have no right to recoup any royalties paid before or during the pendency of such Challenge Proceeding.

4.2.7 Compulsory Sublicenses. If Corbus or any of its Sublicensees is required in a given country to issue a Compulsory Sublicense (as defined below) for the sale of Licensed Product(s) in such country with a royalty rate lower than the lowest royalty rate provided under Section 4.2.1 (Royalty Rates) for such country, then the royalties applicable to the sales of such Compulsory Sublicensee (as defined below) shall be reduced to the rate(s) payable by the Compulsory Sublicensee to Corbus, provided that this reduction shall only be applicable if Corbus can show appropriate evidence that Corbus has used Commercially Reasonable Efforts to (a) avoid having to grant such Compulsory Sublicense and (b) obtain the highest possibly royalty rate from such Compulsory Sublicensee. “Compulsory Sublicense” means, with respect to a Licensed Product in a country, a license or sublicense granted to a Third Party (a “Compulsory Sublicensee”) through the order, decree, or grant of a Governmental Authority in such country, authorizing such Compulsory Sublicensee to use, sell, offer for sale, import, or otherwise Commercialize such Licensed Product in such country. Subject to the foregoing provision of this Section 4.2.7 (Compulsory Sublicenses), a Compulsory Sublicense shall be deemed to be a Sublicensee.

4.3 Milestones. Corbus shall pay to CSPC the following [***] milestone payments within [***] following the first achievement of the applicable milestone by Corbus or any of its Affiliates or Sublicensees:

Development Milestone Event	Development Milestone Payment (USD)
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
Sales Milestone Event	Sales Milestone Payment (USD)
<i>Sales in the United States:</i>	
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
<i>Sales in the Collaborative Territory but excluding the United States:</i>	
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]
[***]	\$[***]

4.4 For clarity, [***]. Non-Royalty Sublicense Income. Within forty-five (45) days following receipt of any Non-Royalty Sublicense Income by Corbus or any of its Affiliates, Corbus shall pay CSPC the following percentage of such Non-Royalty Sublicense Income: (a) [***]; (b) [***]; and (c) [***].

4.5 Pass-Through Fees. During the Term of this Agreement, Corbus shall pay to CSPC that portion of any and all third-party fees, including any license fees, related to the practice of a new Licensed Patent in the Field in the Collaborative Territory, charged by any Third Party licensor and incurred by CSPC in connection with any such Licensed Patent to be licensed to Corbus by CSPC after the Effective Date and during the Term of this Agreement as long as the license of such new Licensed Patent is agreed in writing in advance by both Parties.

5. ROYALTY REPORTS AND ACCOUNTING

5.1 Royalty Reports. Within [***] after the end of each Calendar Quarter during the Term of this Agreement following the First Commercial Sale of a Licensed Product, Corbus shall furnish to CSPC a quarterly written report showing in reasonably specific detail: (a) [***]; (b)

***]; (c) ***]; (d) ***]; (e) the withholding taxes, if any, required by law to be deducted with respect to such sales; and (f) the exchange rates, if any, used in determining the amount of United States dollars. With respect to sales of Licensed Products invoiced in United States dollars, the gross sales, Net Sales and royalties payable shall be expressed in United States dollars. With respect to (i) Net Sales invoiced in a currency other than United States dollars; and (ii) cash consideration paid for the sale of Licensed Products in a currency other than United States dollars by Corbus's Sublicensees hereunder, all such amounts shall be expressed both in the currency in which the amounts are invoiced or paid to Corbus (as applicable) and in the United States dollar equivalent. The United States dollar equivalent shall be calculated in accordance with Section 6.3 (Currency) below.

5.2 Records and Audits

5.2.1 Records. Corbus shall maintain, and shall cause its Affiliates and their Sublicensees to maintain, complete and accurate records of Licensed Products that are made, used, sold, leased or transferred under this Agreement, for purposes of determining any amounts payable to CSPC in relation to the Licensed Products, which records shall contain sufficient information to permit CSPC to confirm the accuracy of any payments made to CSPC under Section 4 (Financial Considerations).

5.2.2 Audits. Corbus, its Affiliates or their Sublicensees, as applicable, shall retain such records relating to a given Calendar Quarter for at least ***] after the conclusion of that Calendar Quarter, during which time CSPC shall have the right to cause (subject to and in accordance with the remaining provisions of this Section 5.2.2 (Audits)) an independent, certified public accountant to inspect such records during normal business hours for the purposes of verifying the accuracy of any financial reports and payments delivered and made under this Agreement and Corbus's compliance with the payment terms hereof. Upon the written request of CSPC at least ***] in advance and not more than ***] in each Calendar Year, Corbus shall permit an independent certified public accounting firm of nationally recognized standing in the United States selected by CSPC, at CSPC's expense, to have access during normal business hours to such of the financial records of Corbus as may be reasonably necessary to verify the accuracy of the payment reports hereunder during the preceding ***] period. If such accounting firm concludes that additional amounts were owed during the audited period, Corbus shall pay such additional amounts within ***] after the date CSPC delivers to Corbus such accounting firm's written report so concluding and setting forth the detailed basis for such conclusion. The fees charged by such accounting firm shall be paid by CSPC; *provided, however*, that if the audit discloses that the royalties payable by Corbus for such period are more than ***] of the royalties actually paid for such period, then Corbus shall pay the reasonable fees and expenses charged by such accounting firm. Such accounting firm shall be required to enter into a nondisclosure agreement with Corbus, its Affiliate or Sublicensee, as applicable, and shall not disclose to CSPC any information other than information relating to the accuracy of reports and payments delivered under this Agreement.

6. PAYMENTS

6.1 Payment Terms. Royalties shown to have accrued by each royalty report provided for under Section 4.2 (Royalties) shall be due on ***]. Payment of royalties in whole or in part may be made in advance of such due date.

6.2 Withholding Taxes. As between the Parties, CSPC would be responsible for any net income tax imposed on CSPC with respect to amounts payable by Corbus and received by CSPC under this Agreement. All payments by Corbus to CSPC under this Agreement shall be made without deducting any present or future taxes, or other charges except those withholdings that are legally required. If Corbus is legally required to make any tax withholdings on CSPC's behalf, Corbus shall notify and cooperate with CSPC with respect thereto and withhold such amounts as are legally required. Corbus shall cooperate with CSPC in preparing and supplementing documentations as required by tax authorities in the Excluded Territory for the purpose of complying with Applicable Laws and applying for the exemption/deduction of taxes imposed by tax authorities in the Excluded Territory arising out of this Agreement. No taxes imposed or applied with respect to transactions between Corbus and its Affiliates can be used to offset or reduce any royalties, or other payments made to CSPC under this Agreement.

6.3 Currency. All amounts payable and calculations hereunder shall be in United States dollars. As applicable, subject to Section 5.1 (Royalty Reports), Net Sales and any royalty deductions shall be translated into United States dollars using the average of the exchange rate (local currency per one United States dollar (US\$1) published in The Wall Street Journal) on the last business day of each month during the applicable Calendar Quarter. If, due to restrictions or prohibitions imposed by national or international authority, payments cannot be made as provided in this Section 6 (Payments), the Parties shall consult with a view to finding a prompt and acceptable solution, and the paying Party shall deal with such monies as the other Party may lawfully direct.

6.4 Method of Payment. Except as otherwise agreed by the Party receiving payments, each payment hereunder shall be made by electronic transfer in immediately available funds via a bank wire transfer, an automated clearing house (ACH) mechanism or any other means of electronic funds transfer, at the paying Party's election, to the bank account designed by the Party receiving payments in writing to the paying Party at least [***] before the payment is due.

6.5 Late Payment. Any amounts that are not paid by Corbus when due shall, to the extent not disputed in good faith by Corbus, accrue a late charge from the due date until paid, at a rate equal to the lesser of [***] and the maximum allowed by Applicable Laws calculated on the total number of days such payment is delinquent.

7. GOVERNANCE

7.1 Joint Steering Committee

7.1.1 Formation and Role. Within [***] after the Effective Date, the Parties shall establish a joint steering committee (the "JSC") to coordinate, review and discuss the Parties' activities with respect to the Development and Commercialization of Licensed Products. For that purpose and to the extent reasonably necessary, the JSC shall (by itself or through discharging its responsibilities through one (1) or more subcommittees):

(a) discuss the status, progress, and results of all Development activities conducted by or on behalf of either Party with respect to Licensed Products, both in and outside the Collaborative Territory;

(b) facilitate communications and discussions between the Parties with respect to the Development Plan (as defined in Section 8.2 (Development Plan));

(c) review, discuss, and approve the initial Development Plan and any proposed, major amendments or revisions to the Development Plan and oversee the implementation of the Development Plan;

(d) review and discuss significant correspondence to or from a Regulatory Authority (including submissions of Regulatory Submissions) that are relevant to Licensed Products in the Field, both inside and outside the Collaborative Territory;

(e) discuss and review Commercialization of Licensed Products in the Field in the Collaborative Territory, including the tracking of sales of Licensed Products;

(f) discuss, review, and approve the Commercialization Plan and oversee the implementation of the Commercialization Plan (as defined in Section 10.3 (Commercialization Plan)), and discuss review and approve any proposed amendments or revisions thereof;

(g) establish procedures regarding the collection, sharing, and reporting of Adverse Event information related to Licensed Products in the Field inside and outside the Collaborative Territory, consistent with the Pharmacovigilance Agreement (as defined in Section 9.7 (Adverse Events)) to be entered into in accordance with Section 9.7 (Adverse Events); and

(h) perform such other functions as appropriate to further the purposes of this Agreement, as expressly set forth in this Agreement or as determined by the Parties in writing.

Notwithstanding the foregoing, in no event shall the JSC or any subcommittee of the JSC have any powers that are not expressly assigned to it in this Section 7.1.1 (Formation and Role) and elsewhere in this Agreement. In no event shall the JSC or any subcommittee of the JSC have any authority to: (a) amend, modify, or waive compliance with this Agreement; (b) determine that a breach has occurred under this Agreement; or (c) make any decision that is specified elsewhere in this Agreement as being made by one (1) or both Parties.

7.1.2 JSC Members

(a) The JSC shall have six (6) members, with one (1) representative from each Party appointed a co-chairperson. Corbus shall appoint three (3) representatives to the JSC, and CSPC shall appoint three (3) representatives to the JSC. Each JSC representative may be an officer, employee, or representative of the applicable Party having sufficient experience and knowledge of matters arising within the scope of the JSC's responsibilities to make decisions with respect thereto. Unless otherwise agreed by the Parties, each Party's representatives to the JSC will include clinical, CMC, and translational subject matter experts.

(b) The role of each co-chairperson shall be to convene and preside at the meetings of the JSC and to ensure the preparation of meeting minutes, but, except as set forth

herein, each co-chairperson shall have no additional powers or rights beyond those held by other JSC representatives.

(c) The JSC may change its size from time to time; provided that the JSC shall consist at all times of an equal number of representatives of each Party. Each Party may replace any of its JSC representatives with a qualified employee of such Party at any time upon written notice to the other Party.

7.1.3 Meetings. Unless the Parties agree otherwise, the JSC shall meet at least once per Calendar Quarter prior to the First Commercial Sale, and thereafter shall meet at least once per Calendar Year. The JSC may conduct such meetings in-person, by videoconference or by teleconference, as the Parties agree. Each Party may invite a reasonable number of participants, in addition to its representatives, to attend JSC meetings; provided that if either Party intends to have any Third Party (including any consultant) attend such a meeting, such Party shall provide prior written notice to the other Party. Such Party shall ensure that such Third Party is bound by confidentiality and non-use obligations consistent with the terms of this Agreement. Each Party is responsible for its own expenses incurred in connection with participating in and attending all such meetings. The Alliance Managers (as defined in Section 7.3 (Alliance Managers)) shall be responsible for preparing reasonably detailed written minutes of all JSC meetings that reflect the decisions made and action items identified at such meetings. The Alliance Managers shall send draft meeting minutes to each member of the JSC for review and written approval by both Parties within [***] from each JSC meeting.

7.1.4 Decision Making

(a) Voting. Each Party shall have a single vote in the JSC regardless of the number of representatives appointed to the JSC or present at the meeting. There must be a minimum of two (2) representatives from each Party at any meeting of the JSC in order for any action taken at such meeting to be valid. The JSC shall act by unanimous consent of both Parties.

(b) Final Decision Authority

(i) If after reasonable discussion and good faith consideration of each Party's view on a particular matter before the JSC, the JSC cannot reach a unanimous decision as to such matter within [***] after such matter was brought to the JSC for resolution, then such matter shall be referred to the Executive Officers for resolution.

(ii) If the issue is not resolved within [***] following the referral of such issue to the Executive Officers, then (A) [***] and (B) [***].

(iii) Notwithstanding the above, a Party may not make any decision or take any action that (A) would reasonably be expected to materially, adversely impact the Licensed Products, (B) requires the other Party to provide any additional resources or bear any additional costs except as expressly required under this Agreement, (C) would reasonably be expected to violate the other Party's rights and benefits under this Agreement, or (D) would otherwise conflict with this Agreement or likely result in a violation of any Applicable Law.

(iv) For clarity, the Parties shall continue to perform all obligations of this Agreement during the foregoing decision-making process. If a matter under the jurisdiction of the JSC is not subject to the final decision-making authority of either Party above or if a Party is unable to decide a matter within its final decision-making authority without fulfilling the conditions provided in this Section 7.1.4(b) (Final Decision Authority) (“Other Matter”), then no change shall have been made and the Parties shall adhere to the protocol or conduct adopted by both Parties and effective prior to the Dispute (as defined in Section 16.1 (Dispute Escalation)) concerning such Other Matter, provided that each Party may seek to resolve any such Dispute by arbitration pursuant to Section 16.1 (Dispute Escalation) and Section 16.2 (Arbitration).

7.2 Subcommittees

7.2.1 General. From time to time, the JSC may establish subcommittees to oversee particular projects or activities within the scope of authority of the JSC, as it deems necessary or advisable. Each subcommittee shall be composed of an equal number of representatives of each Party, as the JSC determines is appropriate from time to time, and shall meet with such frequency as the JSC determines. If, with respect to a matter that is subject to a subcommittee’s decision-making authority, the subcommittee cannot reach unanimity, the subcommittee must refer the matter to the JSC for resolution.

7.2.2 Joint Development Committee. If and at such time as the Parties determine is appropriate, the JSC shall establish a joint development committee (“JDC”). The JDC shall have the primary responsibilities for the matters set forth in Sections 7.1.1(a) – 7.1.1(c) (Formation and Role), together with such other matters as are delegated to the JDC by the JSC.

7.3 Alliance Managers. No later than [***] from the Effective Date, each Party shall designate an individual to facilitate communication and coordination of the Parties’ activities under this Agreement, including the Development, Manufacturing and Commercialization of the Licensed Products (each, an “Alliance Manager”). Each Alliance Manager may also serve as a representative of its respective Party on one (1) or more committees.

7.4 Limitations. Notwithstanding the creation of the JSC or any subcommittee, each Party shall retain the rights, powers, and discretion granted to it hereunder and neither the JSC nor any subcommittee shall be delegated or vested with rights, powers, or discretion unless such delegation or vesting is expressly provided herein, or the Parties expressly so agree in writing. Neither the JSC nor any subcommittee shall have the power to amend or modify this Agreement, and no decision by the JSC or any subcommittee shall be in contravention of any terms and conditions of this Agreement. The Alliance Managers shall not have any rights, powers or discretion except as expressly granted to the Alliance Managers hereunder and in no event shall the Alliance Managers have any right or power to modify or amend this Agreement. It is understood and agreed that issues to be formally decided by the JSC are only those specific issues that are expressly provided in this Agreement as to be decided by the JSC.

8. RESEARCH AND DEVELOPMENT OBLIGATIONS

8.1 Research and Development Efforts. Corbus shall be responsible for all aspects of the research and Development of the Licensed Products in the Collaborative Territory, including

conducting Clinical Trials for such Licensed Products, conducting Regulatory Submissions and obtaining Regulatory Approvals for such Licensed Products in the Field in the Collaborative Territory and shall bear all of the costs and expenses incurred by Corbus in connection with such Development activities.

8.2 Development Plan. Corbus shall use Commercially Reasonable Efforts to Develop the Licensed Products in the Collaborative Territory and achieve the development milestones agreed pursuant to the Development Plan. The initial Development Plan which contains the strategy, activities, and estimated timeline for the research and Development of Licensed Products in the Field in the Collaborative Territory. Such Development Plan shall be submitted by Corbus to the JSC within [***] after the Effective Date for the JSC's review, discussion and approval and any substantive changes or revisions to the Development Plan must be approved by the JSC. References to the "Development Plan" in this Agreement refer to the Development Plan as then in effect (including all amendments thereto).

8.3 Development Diligence. Corbus, itself or through its Affiliates, Sublicensees, or subcontractors, shall use Commercially Reasonable Efforts, at its sole cost and expense, to Develop the Licensed Products in the Field in the Collaborative Territory. Corbus shall and Corbus shall cause its Affiliates, Sublicensees, and its subcontractors to conduct all Development under this Agreement in a professional manner and in compliance with the timeline in the Development Plan and all Applicable Laws.

8.4 Records. Corbus shall maintain records, in sufficient detail and in good scientific manner, which shall reflect all work done and results achieved in the performance of its research and Development regarding the Licensed Products. Such records shall fully and properly reflect, in good scientific manner appropriate for regulatory and patent purposes, all work done and results achieved in the performance of all Development activities for the Licensed Products in the Collaborative Territory. Each Party shall document all non-clinical studies and Clinical Trials in formal written study records, and shall document all Manufacturing activities for Licensed Products, in each case in accordance with Applicable Laws, including applicable national and international guidelines such as GLP and GMP. The Parties shall discuss the status, progress, and results of all Development activities with respect to Licensed Products inside and outside the Collaborative Territory in the Field at such JSC meetings, as required.

8.5 Development Data. CSPC shall solely own all data, records and reports generated by or on behalf of CSPC or its Affiliates, in the non-clinical and clinical Development of the Licensed Products (the "CSPC Product Data"), during the Term. Corbus shall solely own all data, records, and reports generated by or on behalf of Corbus or its Affiliates, in the non-clinical and clinical Development of the Licensed Products (the "Corbus Product Data"), during the Term. Corbus shall, on a [***] basis and at no charge to CSPC, as permitted under Applicable Laws, provide CSPC with a high-level summary of all Corbus Product Data not previously summarized under this Section 8.5 (Development Data). CSPC shall, on a [***] basis and at no charge to Corbus, as permitted under Applicable Laws, provide Corbus with a high-level summary of all CSPC Product Data not previously summarized under this Section 8.5 (Development Data). In addition, CSPC shall provide Corbus, at no charge to Corbus (a) within [***] after the Effective Date, copies of all data, records, and reports included in the CSPC Product Data that exist as of the Effective Date, (b) within [***] days after CSPC or any of its Affiliates receives such CSPC Product Data,

all CSPC Product Data with respect to any Clinical Trial conducted by or on behalf of CSPC or any of its Affiliates with respect to a Licensed Product and (c) within [***] after the end of the [***] in which they were generated, copies of any other data, records, and reports included in the CSPC Product Data.

8.6Standards of Conduct. Corbus shall perform, and shall ensure that its Affiliates, Sublicensees and Third Party contractors perform, the Development activities with respect to Licensed Products in good scientific manner and in compliance in all material respects with the requirements of Applicable Laws.

8.7Transfer of CSPC IND. Notwithstanding anything to the contrary, CSPC hereby transfers (and shall cause its Affiliates to transfer) to Corbus all right, title, and interest in and to, and sponsorship of, the CSPC IND. CSPC shall deliver to Corbus, within [***] after the Effective Date, full and complete copies of the CSPC IND and all data and information referenced therein, and all correspondence with the applicable Regulatory Authorities with respect thereto as long as Corbus shall transfer in full all right, title, and interest in and to the CSPC IND to CSPC upon any termination and expiration of this Agreement.

9. REGULATORY

9.1 Overview

(a)In the Field in the Collaborative Territory. Except for any regulatory activities related to CSPC's Manufacturing of the Licensed Products under this Agreement or the Master Supply Agreement, which regulatory activities shall be exclusively controlled and conducted by CSPC (subject to the provisions of this Agreement and the Master Supply Agreement), Corbus has the exclusive right to conduct, and subject to the remainder of this Section 9 (Regulatory), is solely responsible for all aspects of activities related to (i) setting the regulatory strategy for seeking Regulatory Approvals (including any Pricing Approvals) for Licensed Products in the Field in the Collaborative Territory after taking into account the input of CSPC and the JSC in good faith with respect to such regulatory strategy, and (ii) seeking and obtaining Regulatory Approvals in the Field in the Collaborative Territory. As between the Parties, Corbus shall bear all of its costs and expenses incurred in connection with such regulatory activities.

(b)Outside the Collaborative Territory; Manufacturing Activities. CSPC has the exclusive right to conduct, and subject to the remainder of this Section 9 (Regulatory), is solely responsible for all aspects of and activities related to (i) setting the regulatory strategy for seeking Regulatory Approvals for the Licensed Products outside the Collaborative Territory, and (ii) seeking and obtaining Regulatory Approvals outside the Collaborative Territory. As between the Parties, CSPC shall have the exclusive right to conduct and control (subject to the provisions of this Agreement and the Master Supply Agreement) all regulatory activities, including seeking Regulatory Approvals, for CSPC's Manufacturing of the Licensed Product under this Agreement and the Master Supply Agreement.

9.2 Regulatory Responsibilities and Right of Reference

(a)In the Field in the Collaborative Territory. As between the Parties, Corbus shall prepare, submit, and own all Regulatory Submissions related to the Licensed

Products in the Field in the Collaborative Territory (collectively, “Corbus Regulatory Submissions”), at Corbus’s sole cost and expense, and shall own all Regulatory Approvals resulting or derived therefrom; *provided, however*, that CSPC shall provide Corbus with the information (including chemistry, manufacturing, and controls information) related to any CMC Activities conducted by or on behalf of CPSC or any of its Affiliates (the “CSPC CMC Activities”), including, but not limited to, information related to CSPC’s Manufacturing of the Licensed Products, that is required by the Regulatory Authority for inclusion in the Corbus Regulatory Submissions and necessary for Corbus to file such Corbus Regulatory Submissions (“CSPC CMC Information”). CSPC will ensure that its provision of all CSPC CMC Information to Corbus complies with all Applicable Laws in the Collaborative Territory. For clarity, CSPC retains ownership of the CSPC CMC Information, subject to the license granted to Corbus under this Agreement. Corbus shall lead all interactions with Regulatory Authorities with respect to Licensed Products in the Field in the Collaborative Territory (subject to Section 9.2(c) in the case of such interactions are related to CSPC’s Manufacturing of the Licensed Products). Corbus hereby grants to CSPC an irrevocable, permanent, royalty-free Right of Reference and use to all Regulatory Submissions pertaining to Licensed Products submitted by or on behalf of Corbus, including any such Regulatory Submissions that are in the possession of any Third Party, subject to the prior written consent of such Third Party, solely for the purpose of seeking, obtaining, and maintaining Regulatory Approval of a Licensed Product outside the Collaborative Territory.

(b)Outside the Collaborative Territory; Outside the Field; Manufacturing. CSPC shall prepare, submit, and own all Regulatory Submissions for Licensed Products outside the Collaborative Territory or outside the Field or related to CSPC’s Manufacturing of the Licensed Products inside and outside the Collaborative Territory (other than any Corbus Regulatory Submissions) at CSPC’s sole cost and expense and shall own all Regulatory Approvals resulting or derived therefrom (other than any Corbus Regulatory Submissions), and Corbus shall reasonably cooperate with CSPC with respect to such Regulatory Submissions, including providing information held by Corbus as reasonably requested by CSPC to the extent necessary for CSPC to file such Regulatory Submissions. CSPC shall lead all interactions with Regulatory Authorities with respect to Licensed Products outside the Collaborative Territory or related to CSPC’s Manufacturing of the Licensed Products subject to Section 9.2(a) (In the Field in the Collaborative Territory).

(c)CSPC CMC Activities. Corbus shall provide CSPC with (i) advance written notice of material written communications regarding the CSPC CMC Activities provided to a Regulatory Authority by Corbus; (ii) at least [***] (unless the response deadline of the applicable Regulatory Authority is sooner, in which case Corbus shall provide CSPC with as much of an opportunity to comment as is reasonable under the circumstances) to comment on such material written communications prior to submission thereof, to the extent related to CSPC CMC Activities (and Corbus shall discuss such comments with CSPC and shall in good faith consider the reasonable comments of CSPC with respect to the CSPC CMC Activities); and (iii) copies of all material written communications (including all registrations and approvals) provided to Corbus from a Regulatory Authority regarding the CSPC CMC Activities. If any material regulatory communication will be oral or in-person, and the CSPC CMC Activities are scheduled to be discussed, then Corbus, to the extent practicable and allowed by the Regulatory Authority, will give CSPC a reasonable opportunity to attend such oral or in-person meeting, but CSPC will only participate with respect to the portions of the meeting related to the CSPC CMC Activities. If during

any such material oral or in-person meeting that CSPC is not attending and has not declined to attend, the topic of the CSPC CMC Activities arises, Corbus will reasonably request, as practicable, a postponement of such discussion until a CSPC person can participate; provided that in no event will Corbus be required to postpone any discussions that would have a material effect on Corbus' interactions with such Regulatory Authority or Regulatory Approval of a Licensed Product.

(d)Right of Reference. CSPC (on behalf of itself and its Affiliates) hereby grants to Corbus an irrevocable, permanent, royalty-free, transferable, sublicensable Right of Reference and right to use to all Regulatory Submissions pertaining to the Licensed Products submitted by or on behalf of CSPC or any of its Affiliates, solely for the purpose of seeking, obtaining, and maintaining Regulatory Approval of Licensed Products inside the Collaborative Territory.

9.3Regulatory Authority Inspection

(a)Inspections of Corbus. Corbus shall immediately notify CSPC as soon as Corbus becomes aware of any Regulatory Authority inspections relating to any Licensed Product in the Field in the Collaborative Territory. CSPC may be present at any such inspections to the extent related to the CSPC CMC Activities and Corbus shall provide CSPC the opportunity to review and comment on any responses that may be required to the extent practically possible. If Corbus does not receive prior notice of any such inspection, Corbus shall notify CSPC as soon as practicable after such inspection and shall provide CSPC with copies of all relevant materials, including notes, correspondence, statements, forms, and records received or generated pursuant to any such inspection.

(b)Inspections of CSPC. CSPC shall immediately notify Corbus as soon as CSPC becomes aware of any Regulatory Authority inspections relating to any Licensed Product outside the Collaborative Territory or to CSPC's Manufacturing of the Licensed Product. Corbus may be present at any such inspections and CSPC shall provide Corbus the opportunity to review and comment on any responses that may be required to the extent practically possible. If CSPC does not receive prior notice of any such inspection, CSPC shall notify Corbus as soon as practicable after such inspection and shall provide Corbus with copies of all relevant materials, correspondence, statements, forms, and records received or generated pursuant to any such inspection relating to such Licensed Product.

9.4Regulatory Cooperation

(a)Each Party shall use commercially reasonable efforts to provide the other Party with all reasonable assistance and take all actions reasonably requested by such other Party, without changing the allocation of responsibilities set forth in this Section 9 (Regulatory), that are necessary or desirable to enable: (i) Corbus to seek, obtain, and maintain Regulatory Approvals for the Licensed Products in the Field in the Collaborative Territory; and (ii) CSPC to seek, obtain, and maintain Regulatory Approvals for Licensed Products outside the Collaborative Territory or outside the Field or for Manufacturing of the Licensed Products worldwide. Each Party shall cooperate with any inspection by any Regulatory Authority relating to Licensed Products in the Field in the Collaborative Territory, including any inspection prior to approval of an application for Regulatory Approval for Licensed Products.

(b) Each Party shall keep the JSC reasonably and timely informed regarding the status and progress of its activities conducted with respect to Licensed Products in the Field, both inside and outside the Collaborative Territory, including providing the JSC with advance notice of all meetings scheduled with a Regulatory Authority (including providing notice promptly after a request for a meeting received from a Regulatory Authority) involving a Regulatory Submission, providing the JSC with a copy of all substantive written correspondence from a Regulatory Authority involving a Regulatory Submission, notifying the JSC of all oral substantive correspondence from a Regulatory Authority involving a Regulatory Submission, and promptly providing the JSC with each Regulatory Submission submitted to a Regulatory Authority.

9.5 Notice of Regulatory Action. If any Third Party, including a Regulatory Authority, takes or gives notice of its intent to take any regulatory action with respect to any activity of a Party pursuant to this Agreement, which regulatory action could reasonably be expected to materially adversely affect any Development, Manufacture, or Commercialization activities with respect to the Licensed Products in the Field in the Collaborative Territory, then such Party shall promptly notify the other Party of such notice or action, and the Parties shall discuss an appropriate response in good faith.

9.6 Remedial Actions. If either Party obtains information indicating that any Licensed Product may be subject to any recall, corrective action, or other regulatory action by any Governmental Authority or Regulatory Authority, then such Party's subsequent obligations shall be governed by the Master Supply Agreement.

9.7 Adverse Events. Within [***] after the Effective Date, the Parties shall enter into a pharmacovigilance agreement, which upon such execution shall be attached as an exhibit hereto and hereby incorporated into this Agreement by reference (the "Pharmacovigilance Agreement") to report the appropriate Regulatory Authorities of Adverse Events and the Parties' responsibilities to protect patients and promote their well-being in connection with the use of the Licensed Products. The Parties shall comply with the provisions of the Pharmacovigilance Agreement.

10. COMMERCIALIZATION

10.1 Commercialization Responsibilities. Corbus has the exclusive right to conduct (either by itself or through its Sublicensees), and is solely responsible for all aspects of, the Commercialization of Licensed Products in the Field in the Collaborative Territory under its own brand(s) and trademarks (or the brand(s) and trademarks of any of its Sublicensees), including: (a) developing and executing a commercial launch and pre-launch plan; (b) marketing and promotion; (c) booking sales and distribution and performance of related services; (d) handling all aspects of order processing, invoicing and collection, inventory, and receivables; and (e) providing customer support, including handling medical queries, and performing other related functions, in each case of (a)–(e) with respect to the Field; *provided, however*, that such decisions are consistent with the express terms and conditions of this Agreement. As between the Parties, Corbus shall bear all of its costs and expenses incurred in connection with such Commercialization.

10.2 Commercial Diligence. Corbus shall use Commercially Reasonable Efforts to Commercialize the Licensed Products for which it or CSPC has obtained Regulatory Approval.

10.3 Commercialization Plan. No later than [***] prior to the First Commercial Sale of the first commercialized Licensed Product, Corbus shall establish a plan for the Commercialization of Licensed Products in the Field in the Collaborative Territory in accordance with its normal business practices and consistent with the form and detail that Corbus normally provides for its internal products at a similar stage (the “Commercialization Plan”) and submit such Commercialization Plan to the JSC for its review, comment, and approval. After the JSC’s approval of the initial Commercialization Plan for Licensed Products in the Field, Corbus shall update such Commercialization Plan at least [***] and provide such updated Commercialization Plan to CSPC and submit such Commercialization Plan to the JSC for its review, comment, and approval of substantial changes of the Commercialization Plan.

10.4 Standards of Conduct. Corbus shall perform, and shall ensure that its Affiliates, Sublicensees, and Third Party contractors perform, all Commercialization activities in a good scientific and ethical business manner and in compliance with Applicable Laws. Corbus represents that it has established or shall establish, and shall follow, its own internal policies, procedures, and standards (as such policies, procedures, and standards may be amended by Corbus from time to time) for promotion, Clinical Trials, medical education activities, and other sales and marketing activities for the Licensed Products in the Field in the Collaborative Territory to ensure compliance with Applicable Laws.

11. MANUFACTURING

11.1 CSPC shall be responsible for CMC Activities and Manufacturing of the Licensed Products globally and Corbus shall be responsible for purchasing Licensed Products for any clinical or commercial supply from CSPC under the terms of the Master Supply Agreement (as defined below). The CMC Activities and Manufacturing of the Licensed Products by CSPC for Corbus shall be governed by the terms and provisions of the Master Supply Agreement and this Section 11 (Manufacturing).

11.2 CSPC shall supply to Corbus and Corbus shall purchase exclusively from CSPC a reasonable quantity of the Compound and Finished Products for clinical purposes as Corbus requires at the price of US\$[***] ([***] United States Dollars) per [***] and the Compound and Finished Products shall be delivered by CSPC to Corbus on an Ex Works, CSPC’s facility in China basis, unless agreed otherwise in writing by the Parties. CSPC shall supply to Corbus and Corbus shall purchase exclusively from CSPC all of Corbus’s requirements for the Compound and Finished Products for the Commercialization of the Licensed Products, provided that Corbus shall pay to CSPC an amount equal to CSPC’s Fully Burdened Manufacturing Cost to Manufacture the Compound plus [***] percent ([***]%).

11.3 Master Supply Agreement. Within [***] after the Effective Date, the Parties shall negotiate and enter into a supply agreement for the supply of the Licensed Product (the “Master Supply Agreement”). In addition to the pricing of the Licensed Product as provided above, the Master Supply Agreement shall contain the following terms: (a) CSPC shall commit to supplying and Corbus shall commit to purchasing exclusively (subject to the terms set forth below) from CSPC any amount of the Licensed Product (in Finished Product form) requested by Corbus pursuant to a customary forecasting mechanism to be included in the Master Supply Agreement and agreed by both Parties, [***], Corbus shall have the right to Manufacture or have Manufactured

the Licensed Products (and the Master Supply Agreement shall include appropriate technology transfer mechanisms and escrowed know-how) in the case that (i) [***], (ii) [***]; (iii) [***]; (b) [***], (c) [***], and (d) subject to the foregoing, CSPC shall be the exclusive supplier of the Compound and the Licensed Products to Corbus for both supply and commercial purposes.

12. CONFIDENTIALITY

12.1 Confidential Information. During the Term of this Agreement, and for a period of [***] following the expiration or earlier termination hereof, the receiving Party (the "Receiving Party") shall maintain in confidence all non-public information (and all tangible and intangible embodiments thereof) of or controlled by the other Party that is disclosed by the other Party (the "Disclosing Party") and identified as, or acknowledged to be, confidential at the time of disclosure or should be reasonably regarded as confidential given the nature of the information and the circumstances of disclosure (the "Confidential Information"), and shall not use, disclose, or grant the use of the Confidential Information except on a need-to-know basis to those directors, officers, Affiliates, employees, permitted licensees or Sublicensees, permitted assignees and agents, consultants, clinical investigators, or contractors of the Receiving Party, to the extent such disclosure is reasonably necessary in connection with performing its obligations or exercising its rights under this Agreement. To the extent that disclosure is authorized by this Agreement, prior to disclosure, each Party hereto shall obtain agreement of any such Person to hold in confidence and not make use of the Confidential Information for any purpose other than those permitted by this Agreement. Each Party shall notify the other promptly upon discovery of any unauthorized use or disclosure of the other Party's Confidential Information.

12.2 Permitted Disclosures. The confidentiality obligations contained in Section 12.1 (Confidential Information) shall not apply to the extent that: (a) the Receiving Party is required (i) to disclose information required by law, regulation, or order of a governmental agency or a court of competent jurisdiction (other than information described in the following clause (ii)), provided in such case that the Receiving Party shall provide written notice thereof to the other Party and sufficient opportunity to object to any such disclosure or to request confidential treatment thereof; or (ii) in the case where Corbus is the Receiving Party, to disclose information to any governmental agency to the extent necessary to obtain Regulatory Approvals for the Licensed Products; or (b) the Receiving Party can demonstrate by competent and sufficient evidence that (i) the disclosed information was public knowledge at the time of such disclosure to the Receiving Party, or thereafter became public knowledge, other than as a result of actions of the Receiving Party in violation hereof; (ii) the disclosed information was rightfully known by the Receiving Party (as shown by its written records) prior to the date of disclosure to the Receiving Party by the other Party hereunder; (iii) the disclosed information was disclosed to the Receiving Party on an unrestricted basis from a source unrelated to any Party to this Agreement and not under a duty of confidentiality to the other Party; or (iv) the disclosed information was independently developed by the Receiving Party without use of or reliance on the Confidential Information disclosed by the other Party. In the event that the Receiving Party or its Receiving Parties, as applicable, deem it reasonably necessary to disclose Confidential Information belonging to the Disclosing Party pursuant to this Section 12.2 (Permitted Disclosures), the Receiving Party shall, to the extent possible, provide the Disclosing Party with reasonable advance notice of such disclosure and take reasonable measures (including for example, where appropriate, the filing of a redacted copy of this Agreement approved by both Parties) to ensure confidential treatment of such information.

12.3Notification. The Receiving Party shall notify the Disclosing Party immediately and cooperate with the Disclosing Party as the Disclosing Party may reasonably request, upon the Receiving Party's discovery of any loss or compromise of the Disclosing Party's Confidential Information.

12.4Destruction of Confidential Information. Upon the expiration or earlier termination of this Agreement, except as otherwise requested by the Disclosing Party, the Receiving Party shall: (a) destroy all tangible embodiments of Confidential Information of the Disclosing Party, including any and all copies thereof, and those portions of any documents, memoranda, notes, studies, and analyses prepared by the Receiving Party or its Receiving Parties that contain, incorporate or are derived from such Confidential Information and provide written certification of such destruction to the Disclosing Party in a form reasonably acceptable to the Disclosing Party; and (b) immediately cease, and shall cause its Receiving Parties to cease, use of such Confidential Information as well as any information or materials that contain, incorporate, or are derived from such Confidential Information; *provided, however*, that in the event of expiration of this Agreement, Corbus shall have no obligations under this Section 12.4 (Destruction of Confidential Information) with respect to any Confidential Information that is included in or relates to the Licensed IP Rights and necessary for Corbus or any Sublicensee to exercise the non-exclusive license under Section 14.1 (Expiration).

12.5Use of Name and Disclosure of Terms of this Agreement. Each Party shall keep the existence of, the terms of, and the transactions covered by this Agreement confidential and shall not disclose such information to any Third Party, or mention or otherwise use the name, insignia, symbol, trademark, trade name, or logotype of the other Party or its Affiliates in any manner without the prior written consent of the other Party in each instance (which shall not be unreasonably withheld, conditioned, or delayed); *provided, however*, that a Receiving Party may disclose such information without the prior consent of the Disclosing Party to any Third Party who is performing diligence in connection with a transaction with such Receiving Party (including potential Sublicensees and licensees) so long as each such Third Party has signed a written confidentiality agreement with such Receiving Party no less restrictive than the terms hereof. The restrictions imposed by this Section 12 (Confidentiality) shall not prohibit either Party from making any disclosure that is required by Applicable Laws, rules or regulations or the requirements of a national securities exchange or another similar regulatory body, or that is expressly permitted under this Agreement. Further, the restrictions imposed on each Party under this Section 12 (Confidentiality) are not intended, and shall not be construed, to prohibit a Party from identifying the other Party in its internal business communications, provided that any Confidential Information in such communications remains subject to this Section 12 (Confidentiality).

12.6Publicity. Notwithstanding anything to the contrary in this Section 12 (Confidentiality), it is understood that CSPC shall issue a voluntary announcement announcing the execution of this Agreement in substantially the form attached hereto as Exhibit C (Voluntary Announcement of CSPC) and Corbus shall issue a press release announcing the execution of this Agreement in substantially the form attached hereto as Exhibit D (Press Release of Corbus). The Parties agree to consult with each other reasonably and in good faith with respect to the text and timing of any subsequent press releases relating to this Agreement or the activity hereunder prior to the issuance thereof, provided that a Party may not unreasonably withhold consent to such releases, and that either Party may issue (without any requirement to obtain the other Party's

consent) such press releases as it determines, based on advice of counsel, are reasonably necessary to comply with laws or regulations or for appropriate market disclosure or which are consistent with information disclosed in prior releases properly made hereunder.

12.7Remedies. The Parties acknowledge and agree that the restrictions set forth in Section 12 (Confidentiality) are reasonable and necessary to protect the legitimate interests of the Parties and that neither Party would have entered into this Agreement in the absence of such restrictions, and that any breach or threatened breach of any provision of Section 12 (Confidentiality) shall result in irreparable injury to the other Party for which there shall be no adequate remedy at law. In the event of a breach or threatened breach of any provision of Section 12 (Confidentiality) by a Party, the other Party shall be authorized and entitled to seek from any court of competent jurisdiction injunctive relief, whether preliminary or permanent, specific performance and an equitable accounting of all earnings, profits, and other benefits arising from such breach, which rights shall be cumulative and in addition to any other rights or remedies to which such Party may be entitled in law or equity. The breaching Party agrees to waive any requirement that the non-breaching Party: (a) post a bond or other security as a condition for obtaining any such relief; or (b) show irreparable harm, balancing of harms, consideration of the public interest, or inadequacy of monetary damages as a remedy. Nothing in this Section 12.7 (Remedies) is intended, or shall be construed, to limit the Parties' rights to equitable relief or any other remedy for a breach of any provision of this Agreement.

13.INTELLECTUAL PROPERTY

13.1Ownership of Background Intellectual Property. The Background Intellectual Property of a Party shall remain such Party's sole property. The Background Intellectual Property of CSPC shall include Licensed Patents, Licensed Know-How, and all right, title, and interest in any Improvement that (a) is Created by or on behalf of any Party, whether alone or in collaboration with the other Party or a Third Party, and (b) excluding any invention that claims any formulation or method of use of a Licensed Product (collectively, the "CSPC-Owned Improvements"). Corbus hereby agrees to assign and transfer and hereby assigns and transfers to CSPC any and all of its rights, interest, and title in and to the CSPC-Owned Improvements (if any) to CSPC without any further consideration. The Exclusive License shall automatically include all CSPC-Owned Improvements and all Intellectual Property Rights in and to the CSPC-Owned Improvements shall be considered Licensed IP Rights during the Term. For clarity, any Improvement that is a patentable invention that is Created by or on behalf of Corbus and claims [***] of a Licensed Product is not included in the definition of CSPC-Owned Improvements and instead is Corbus's Solely Owned Foreground IP (or is Jointly Owned Foreground IP, to the extent it falls within the definition of Jointly Owned Foreground IP).

13.2Ownership of Foreground Intellectual Property. Subject to CSPC's ownership of the CSPC-Owned Improvements and the rights of Corbus under the Exclusive License: (a) each Party shall own any and all Data and Technology that does not constitute a CSPC-Owned Improvement and Intellectual Property Rights thereof Created solely by its employees, agents, or independent contractors in the course of performance of their activities hereunder ("Solely Owned Foreground IP"); and (b) any Data and Technology which is Created jointly by CSPC and Corbus (including their respective Affiliates and contractors), for which joint Development shall be determined based on United States laws applicable to such Data and Technology and the Intellectual

Property Rights associated therewith (“Jointly Owned Foreground IP”), shall be owned jointly by both Parties in equal undivided shares (“Joint Owners”). Subject to any other Intellectual Property Rights of the other Joint Owner (including the exclusive rights of Corbus under the Exclusive License with respect to CSPC’s interest in any Jointly Owned Foreground IP) and any other agreements between the Joint Owners, each Joint Owner may use, exploit, and commercialize such Jointly Owned Foreground IP and license and sublicense such Jointly Owned Foreground IP without the consent of the other Joint Owner and without any duty to account for or share proceeds with the other Joint Owner on account of such use, exploitation, commercialization, licensing, or sublicensing. Corbus hereby agrees to assign and transfer and hereby assigns and transfers to CSPC any and all of its rights, title, and interest in and to CSPC-Owned Improvements and CSPC’s Solely Owned Foreground IP (collectively, “CSPC New IP”) without any further consideration.

13.3Grant-back to Corbus’s Solely Owned Foreground IP. Corbus hereby grants to CSPC an irrevocable, perpetual, non-exclusive, transferable, sublicensable (through multiple tiers), fully paid-up, royalty-free unrestricted license to any of Corbus’s Solely Owned Foreground IP and all of Corbus’s right, title, and interest in the Licensed Product CDx for the Development and Commercialization of the Licensed Products in the Excluded Territory and the Manufacturing of the Compound and the Licensed Products inside and outside the Collaborative Territory, including pursuant to this Agreement and the Master Supply Agreement, and the Development, Manufacturing, and the Commercialization of the Licensed Product CDx worldwide. Corbus shall inform CSPC without undue delay about any of Corbus’s Solely Owned Foreground IP and provide all relevant information that enables CSPC to effectively evaluate the scope of such Solely Owned Foreground IP.

13.4Patent Prosecution and Maintenance of Licensed IP Rights. CSPC shall have the first right to control the preparation, filing, prosecution, and maintenance of all patents and patent applications within the Licensed Patents, CSPC New IP, and the Jointly Owned Foreground IP and the out-of-pocket costs incurred after the Effective Date that are associated with the preparing, filing, prosecution, and maintenance of the Licensed Patents in the Collaborative Territory that specifically Cover the Licensed Products (as opposed to Licensed Patents that Cover separately the monoclonal antibody, linker, or payload) shall be divided between the Parties as follows: [***] percent ([***]%) of such costs shall be borne by Corbus, and [***] percent ([***]%) of such costs shall be borne by CSPC. CSPC shall give Corbus a reasonable opportunity to review and comment on the text of each New Patent Application subject to this Section 13.4 (Patent Prosecution and Maintenance of Licensed IP Rights) before filing, give reasonable consideration to any comments provided by Corbus with respect to the foregoing, and supply Corbus with a copy of each New Patent Application as filed, together with notice of its filing date and serial number. In addition, CSPC shall in a timely manner provide Corbus with copies of all office actions and other substantive correspondence received from any patent office with respect to the Licensed Patents, and shall give Corbus a reasonable opportunity to review and comment on all proposed office action responses and other substantive submissions to the relevant patent office prior to submission and shall give reasonable consideration to any comments provided by Corbus with respect to the foregoing and shall supply Corbus with a copy of each office action response and other substantive submission as submitted. Corbus shall cooperate with CSPC, execute all lawful papers and instruments, and make all rightful oaths and declarations as may be necessary in the preparation, prosecution, and maintenance of all patents and other filings referred to in this Section 13.4 (Patent Prosecution and Maintenance of Licensed IP Rights). If CSPC, in its sole discretion,

decides to abandon the preparation, filing, prosecution, or maintenance of any Licensed Patent in the Collaborative Territory, or Jointly Owned Foreground IP, then Corbus shall notify CSPC in writing of its intent to file, prosecute, and maintain CSPC's rights in such Licensed Patent or Jointly Owned Foreground IP, reasonably in advance of any applicable deadline for filing, submission, or payment to the applicable patent office, and following the date of such notice, Corbus, at its option, may elect to have the right and be responsible for and to control, at its sole cost and discretion, the preparation, filing, prosecution, and maintenance of CSPC's rights in such Licensed Patent in the Collaborative Territory or Jointly Owned Foreground IP.

13.5 Notification of Infringement. Each Party shall notify the other Party promptly upon becoming aware of any substantial infringement in the Collaborative Territory of any Licensed IP Rights and shall provide the other Party with the available evidence, if any, of such infringement.

13.6 Enforcement of Licensed IP Rights in the Field in the Collaborative Territory

13.6.1 CSPC hereby grants to Corbus, at its sole expense, the first right to determine the appropriate course of action to enforce CSPC's rights in the Licensed IP Rights in the Field in the Collaborative Territory or otherwise abate the infringement thereof, to take (or refrain from taking) appropriate action to enforce Licensed IP Rights in the Field in the Collaborative Territory, to defend any declaratory judgments seeking to invalidate or hold the Licensed IP Rights unenforceable in the Field in the Collaborative Territory, to control any litigation or other enforcement action and to enter into, or permit, the settlement of any such litigation, declaratory judgments, or other enforcement action with respect to Licensed IP Rights in the Field in the Collaborative Territory, in each case in Corbus's own name.

13.6.2 If Corbus does not, within [***] of receipt of notice from CSPC, abate the infringement, or file suit to enforce the Licensed IP Rights against at least one (1) infringing party in the Field in the Collaborative Territory, CSPC shall have the right to take whatever action it deems appropriate to enforce the Licensed IP Rights; *provided, however*, that, within [***] after receipt of notice of CSPC's intent to file such suit, Corbus shall have the right, subject to CSPC's consent, to jointly prosecute such suit and to fund up to [***] the costs of such suit. Upon CSPC's request, Corbus shall join CSPC in any action enforcing the Licensed IP Rights in the Field in the Collaborative Territory.

13.6.3 The Party controlling any such enforcement action shall not settle the action or otherwise consent to an adverse judgment in such action that diminishes the rights or interests of the non-controlling Party without the prior written consent of the other Party. All monies recovered upon the final judgment or settlement of any such suit to enforce the Licensed IP Rights shall be shared, after reimbursement of litigation expenses to both Parties, as follows: (a) if Corbus controls the applicable enforcement action, [***] percent ([***]%) of such funds shall be retained by Corbus and [***] percent ([***]%) of such funds shall be retained by CSPC; and (b) if CSPC controls the applicable enforcement action, [***] percent ([***]%) of such funds shall be retained by CSPC and [***] percent ([***]%) of such funds shall be retained by Corbus. Neither Party shall incur any liability to the other Party as a consequence of any litigation initiated or pursued pursuant to this Section 13.6 (Enforcement of Licensed IP Rights in the Field in the Collaborative Territory)

or any unfavorable decision resulting therefrom, including any decision holding any Licensed IP Rights invalid or unenforceable.

13.6.4 Notwithstanding the above and anything to the contrary in this Agreement, CSPC shall have the sole and exclusive right, but not the obligation, to enforce and defend any Licensed IP Rights (whether directly or through any of its Affiliates or Third Party designees), including the initiation of any action for infringement of Licensed IP Rights, outside the Field or outside the Collaborative Territory.

13.7 Corbus's Solely Owned Foreground IP

13.7.1 Patent Prosecution and Maintenance. Corbus shall have the sole right to control the preparation, filing, prosecution, and maintenance of all patents and patent applications within Corbus's Solely Owned Foreground IP ("Corbus Solely Owned Patents") at its sole expense. Corbus shall in a timely manner provide CSPC with copies of all office actions and other substantive correspondence received from any patent office with respect to Corbus Solely Owned Patents to the extent related to the Compound or a Licensed Product, and shall give CSPC a reasonable opportunity to review and comment on all proposed office action responses and other substantive submissions to the relevant patent office prior to submission and shall give reasonable consideration to any comments provided by CSPC with respect to the foregoing and shall supply CSPC with a copy of each office action response and other substantive submission as submitted.

13.7.2 Enforcement of Corbus's Solely Owned Foreground IP

(a) Enforcement in the Field in the Collaborative Territory. Corbus has, at its sole expense, the sole right to determine the appropriate course of action to enforce Corbus's rights in Corbus's Solely Owned Foreground IP or to otherwise abate the infringement thereof, to take (or refrain from taking) appropriate action to enforce Corbus's Solely Owned Foreground IP, to defend any declaratory judgments seeking to invalidate or hold Corbus's Solely Owned Foreground IP unenforceable, to control any litigation or other enforcement action and to enter into, or permit, the settlement of any such litigation, declaratory judgments or other enforcement action with respect to Corbus's Solely Owned Foreground IP, in each case, in the Field in the Collaborative Territory, and in each case, in Corbus's own name.

(i) If Corbus does not, within [***] of receipt of notice from CSPC, abate the infringement or file suit to enforce Corbus's Solely Owned Foreground IP against at least one (1) infringing party in the Field in the Collaborative Territory, CSPC shall have the right to take whatever action it deems appropriate to enforce Corbus's Solely Owned Foreground IP; *provided, however*, that, within [***] after receipt of notice of CSPC's intent to file such suit, Corbus shall have the right, subject to CSPC's consent, to jointly prosecute such suit and to fund up to [***] the costs of such suit. Upon CSPC's request, Corbus shall join CSPC in any action enforcing Corbus's Solely Owned Foreground IP in the Field in the Collaborative Territory.

(ii) The Party controlling any such enforcement action shall not settle the action or otherwise consent to an adverse judgment in such action that diminishes the rights or interests of the non-controlling Party without the prior written consent of the other Party. All monies recovered upon the final judgment or settlement of any such suit to enforce Corbus's

Solely Owned Foreground IP shall be shared, after reimbursement of litigation expenses to both Parties, as follows: (a) if Corbus controls the applicable enforcement action, [***] percent ([***]%) of such funds shall be retained by Corbus and [***] percent ([***]%) of such funds shall be retained by CSPC; and (b) if CSPC controls the applicable enforcement action, [***] percent ([***]%) of such funds shall be retained by CSPC and [***] percent ([***]%) of such funds shall be retained by Corbus. Neither Party shall incur any liability to the other Party as a consequence of any litigation initiated or pursued pursuant to this Section 13.7.2(a) (Enforcement in the Field in the Collaborative Territory) or any unfavorable decision resulting therefrom, including any decision holding any Solely Owned Foreground IP of Corbus invalid or unenforceable.

(b) Enforcement Outside the Field or Outside the Collaborative Territory

(i) Corbus hereby grants to CSPC, at its sole expense, the first right to determine the appropriate course of action to enforce Corbus's rights in Corbus's Solely Owned Foreground IP or to otherwise abate the infringement thereof, to take (or refrain from taking) appropriate action to enforce Corbus's Solely Owned Foreground IP, to defend any declaratory judgments seeking to invalidate or hold Corbus's Solely Owned Foreground IP unenforceable, to control any litigation or other enforcement action, and to enter into, or permit, the settlement of any such litigation, declaratory judgments, or other enforcement action with respect to Corbus's Solely Owned Foreground IP, in each case, outside the Field or outside the Collaborative Territory, and in each case, in CSPC's own name.

(ii) If CSPC does not, within [***] days of receipt of notice from Corbus, abate the infringement or file suit to enforce Corbus's Solely Owned Foreground IP or the Licensed IP Rights against at least one (1) infringing party outside the Field or outside the Collaborative Territory, Corbus shall have the right to take whatever action it deems appropriate to enforce Corbus's Solely Owned Foreground IP outside the Field or outside the Collaborative Territory; *provided, however*, that, within [***] days after receipt of notice of Corbus's intent to file such suit, CSPC shall have the right, subject to Corbus's consent, to jointly prosecute such suit and to fund up to [***] the costs of such suit. Upon CSPC's request, Corbus shall join CSPC in any action enforcing Corbus's Solely Owned Foreground IP Outside the Field or Outside the Collaborative Territory.

(iii) The Party controlling any such enforcement action shall not settle the action or otherwise consent to an adverse judgment in such action that diminishes the rights or interests of the non-controlling Party without the prior written consent of the other Party. All monies recovered upon the final judgment or settlement of any such suit to enforce Corbus's Solely Owned Foreground IP shall be shared, after reimbursement of litigation expenses to both Parties, as follows: (a) if Corbus controls the applicable enforcement action, [***] percent ([***]%) of such funds shall be retained by Corbus and [***] percent ([***]%) of such funds shall be retained by CSPC; and (b) if CSPC controls the applicable enforcement action, [***] percent ([***]%) of such funds shall be retained by CSPC and [***] percent ([***]%) of such funds shall be retained by Corbus. Neither Party shall incur any liability to the other Party as a consequence of any litigation initiated or pursued pursuant to this Section 13.7.2(b) (Enforcement Outside the Field or Outside the Collaborative Territory) or any unfavorable decision resulting therefrom, including any decision holding any Solely Owned Foreground IP of Corbus invalid or unenforceable.

13.8Cooperation. In any suit to enforce and/or defend any Intellectual Property Rights pursuant to Section 13.6 (Enforcement of Licensed IP Rights in the Field in the Collaborative Territory) or Section 13.7.2 (Enforcement of Corbus's Solely Owned Foreground IP), the Party not in control of such suit shall, at the request and expense of the controlling Party, reasonably cooperate and, to the extent possible, have its employees testify when requested and make available relevant records, papers, information, samples, specimens, and the like. If Corbus is the enforcing Party in an enforcement action, Corbus shall act in good faith to preserve CSPC's right, title, and interest in and to the Licensed IP Rights, shall keep CSPC advised as to the status of the litigation and shall not enter into a settlement of such litigation that would have an adverse impact on the validity or enforceability of the Licensed IP Rights or CSPC's rights and benefits under this Agreement without first allowing CSPC the option of either approving the settlement or of continuing the litigation at CSPC's expense for CSPC's benefit. If CSPC is the enforcing Party in an enforcement action with respect to Corbus's Solely Owned Foreground IP, CSPC shall act in good faith to preserve Corbus' right, title, and interest in and to Corbus's Solely Owned Foreground IP, shall keep Corbus advised as to the status of the litigation and shall not enter into a settlement of such litigation that would have an adverse impact on the validity or enforceability of Corbus's Solely Owned Foreground IP without first allowing Corbus the option of either approving the settlement or of continuing the litigation at Corbus' expense for Corbus' benefit. Notwithstanding anything to the contrary in this Agreement, CSPC shall have the sole discretion in deciding whether or not to join any enforcement action of Corbus unless required by a competent court for standing purposes.

13.9Privileged Communications. In furtherance of this Agreement, it is expected that CSPC and Corbus shall, from time to time, disclose to one another privileged communications with counsel, including opinions, memoranda, letters, and other written, electronic, and verbal communications. Such disclosures are made with the understanding that they shall remain confidential, they shall not be deemed to waive any applicable attorney-client privilege and that they are made in connection with the shared community of legal interests existing between CSPC and Corbus, including the community of legal interests in avoiding infringement of any valid, enforceable patents of Third Parties and maintaining the validity of Licensed IP Rights.

14.TERMINATION

14.1Expiration. Subject to Sections 14.2 (Termination by CSPC), 14.3 (Termination by Corbus) and 14.4 (Termination for Cause) below, this Agreement shall become effective on the Effective Date and unless earlier terminated pursuant to this Section 14 (Termination) or upon mutual written agreement of both Parties, shall expire on the date of expiration of the last Royalty Term of the last Licensed Product ("Term"). Following such expiration of this Agreement, (a) the license granted to Corbus under Section 3.1.1 (Exclusive License) shall automatically become a fully paid-up, royalty-free, irrevocable, perpetual, non-exclusive, freely transferable, and sublicensable license under the Licensed IP Rights to Exploit Licensed Products in the Field in the Collaborative Territory and (b) the license granted to Corbus under Section 3.8 (Non-Exclusive License to Licensed Product CDx IP) shall continue to be effective solely if necessary to Develop or Commercialize a Licensed Product.

14.2Termination by CSPC

14.2.1 Patent Challenge. CSPC may, at its sole discretion, terminate this Agreement, effective immediately, upon written notice to Corbus, upon the commencement by Corbus or any other Challenging Party of a Challenge Proceeding.

14.2.2 Other Events of Termination by CSPC. CSPC may unilaterally terminate this Agreement, in its sole discretion, upon one hundred and eighty (180) days' prior written notice to Corbus or the successor of Corbus upon or following the occurrence of a CSPC Competitor Change of Control; provided, however, that this Agreement will not terminate if: (a) Corbus undergoes a CSPC Competitor Change of Control and, on the closing of such CSPC Competitor Change of Control, the applicable acquiring or merging party is Developing, Manufacturing, or Commercializing a Competing Product for use in the Field; and (b) no later than six (6) months following such closing (the "Wind Down Period"), Corbus or the successor of Corbus following such CSPC Competitor Change of Control, as applicable, has taken all necessary steps to fully Divest and Segregate the Competing Product, it being agreed that Corbus shall not be in breach of this Agreement during the Wind Down Period by taking steps to Divest and Segregate such Competing Product pursuant to the foregoing.

14.3 Termination by Corbus. After full and timely payment of the Upfront Fee pursuant to Section 4.1 (Upfront Fee), Corbus may terminate this Agreement without cause at any time upon one hundred and eighty (180) days' written notice to CSPC.

14.4 Termination for Cause

14.4.1 Material Breach. The non-breaching Party shall have the right (but not the obligation) to terminate this Agreement upon written notice to the other Party if such other Party materially breaches its obligations under this Agreement and, after receiving written notice from the non-breaching Party identifying such material breach in reasonable detail, fails to cure such material breach within ninety (90) days from the date of such notice, and if such breach is not reasonably capable of cure within such ninety (90) day period and the breaching Party initiates good faith actions to cure such breach, the period to cure such breach shall be extended for so long as such good faith actions are being diligently pursued by the breaching Party but shall not exceed one hundred eighty (180) days unless otherwise agreed by the non-breaching Party. For clarity, a Party may seek damages for the other Party's breach of this Agreement without terminating this Agreement.

14.4.2 Termination for Bankruptcy. Either Party may terminate this Agreement if, at any time, the other Party: (a) files in any court or agency pursuant to any statute or regulation of any state, country, or jurisdiction, a petition in bankruptcy or insolvency or for reorganization or for an arrangement or for the appointment of a receiver or trustee of such other Party or of its assets; (b) proposes a written agreement of composition or extension of its debts; (c) is served with an involuntary petition against it, filed in any insolvency proceeding that remains un-dismissed or un-stayed for a period of ninety (90) days after the filing thereof; (d) proposes or is a party to any dissolution or liquidation; or (e) makes an assignment for the benefit of its creditors.

14.5 Full Force and Effect during the Notice Period. This Agreement shall remain in full force and effect until the expiration of the applicable termination notice period. If any milestone payment under Section 4.3 (Milestones) is achieved during the termination notice period,

then the corresponding milestone payment thereof shall be accrued and Corbus shall remain responsible for the payment of such milestone event even if the due date of such milestone payment may come after the effective date of the termination of this Agreement.

14.6 Notwithstanding anything to the contrary in the foregoing, if Corbus would otherwise have the right to terminate this Agreement pursuant to Section 14.4.1 (Material Breach), then in lieu of such termination Corbus may, upon written notice to CSPC, elect to continue this Agreement in full force and effect.

14.7 Effect of Expiration or Termination

14.7.1 Reversion of Rights; Sublicense. Upon termination (but not expiration) of this Agreement pursuant to this Section 14 (Termination): (a) the rights and licenses granted to Corbus under this Agreement, including under Section 3.1 (Licensed IP Rights), shall terminate, and all rights in and to and under the Licensed IP Rights shall revert to CSPC and neither Corbus or any of its Affiliates shall have any further rights of use or Exploitation of the Licensed IP Rights (except as provided in Section 14.7.4 (Inventory)); and (b) any existing agreements that contain a Sublicense shall terminate to the extent of such Sublicense; *provided, however*, that, notwithstanding the foregoing, each Sublicensee that is not at that time in material breach of its Sublicense shall have the right to obtain a license from CSPC on substantially the same terms and conditions as set forth herein, which shall not impose any representations, warranties, obligations, or liabilities on CSPC that are not included in this Agreement; [***]. If any Sublicensee desires to enter into such a direct license, it shall be wholly the responsibility of that Sublicensee to notify CSPC of such desire no later than [***] after the effective date of termination of this Agreement.

14.7.2 Accruing Obligations. The expiration or termination of this Agreement shall not relieve the Parties of any obligation accruing prior to such expiration or termination, including obligations to pay amounts accruing hereunder up to the date of termination or expiration.

14.7.3 Regulatory Approvals. Upon any termination of this Agreement by CPSC pursuant to Section 14.2.1 (Patent Challenge) or Section 14.4.1 (Material Breach) or if Corbus terminates this Agreement pursuant to Section 14.3 (Termination by Corbus), at CSPC's request: (a) Corbus shall promptly transfer and hereby transfers ownership of any and all Regulatory Approvals for Licensed Products in the name of or otherwise owned or controlled by Corbus or its Affiliates to CSPC without any further consideration and (b) if Corbus is restricted under Applicable Laws from transferring ownership of any Regulatory Approval to CSPC, Corbus shall grant to CSPC a Right of Reference and use to such item free of charge and shall take all actions reasonably useful or necessary to effect such transfer or grant of Rights of Reference and use to CSPC or its designees. If the Agreement is terminated by Corbus due to CSPC's material breach of the Agreement pursuant to Section 14.4.1 (Material Breach), except for the transfer of CSPC IND, which shall be made in accordance with Section 8.7 (Transfer of CSPC IND), Corbus shall promptly transfer and hereby grants to CSPC a Right of Reference to any and all Regulatory Approvals for Licensed Products in the name of or otherwise owned or controlled by Corbus or its Affiliates.

14.7.4 Inventory. In the event that this Agreement is terminated in its entirety for any reason (but, for clarity, not upon the expiration of this Agreement), Corbus shall discontinue the sale of the Licensed Products and shall have the right to sell its remaining inventory of the Licensed Products following such termination of this Agreement so long as Corbus has fully paid, and continues to fully pay when due, any and all payments owed to CSPC.

14.7.5 Intellectual Property. Upon any termination of this Agreement for any reason, Corbus shall, and shall cause its Affiliates to, disclose and grant (and hereby grants) to CSPC without any further consideration, a non-exclusive, irrevocable, royalty-free license under all the right, title, and interest of Corbus and its Affiliates in and to (a) any and all Corbus Product Data and other Data and Technology owned or controlled by Corbus or its Affiliates as of the effective date of termination or expiration of this Agreement that has been generated by or on behalf of Corbus or its Affiliates or Sublicensees, with respect to and that relates exclusively to Licensed Products; and (b) any Patents and other Intellectual Property Rights controlled by Corbus or its Affiliates and Created on or after the Effective Date that Cover any Licensed Product, in each case in (a) and (b), that are necessary or reasonably helpful to enable CSPC to Develop and Commercialize Licensed Products following such termination or expiration (collectively, "Termination IP"). Upon CSPC's written request to Corbus before or within [***] after the expiration or termination of this Agreement, CSPC may request, and at CSPC's request, Corbus shall enter into good faith negotiations to either (i) transfer ownership of Corbus's right, title, and interest in any Termination IP to CSPC or (ii) grant to CSPC an exclusive, worldwide and royalty-bearing license under Corbus's right, title, and interest in any Termination IP to Develop, Manufacture, and Commercialize the Licensed Products at a reasonable price to be agreed by the Parties. If the Parties are unable to agree on the terms and conditions of such transfer or grant, the Parties shall resolve such Dispute pursuant to Section 16 (Dispute Resolution).

14.8 Survival. The Parties' respective rights, obligations, and duties under Section 1 (Definitions) (to the extent necessary to give effect to the other sections listed in this Section 14.8 (Survival)), Section 2.1 (Mutual Representations and Warranties), Section 2.2 (CSPC Representations and Warranties), Section 3.1.1 (Exclusive License) (only to the extent provided in the second sentence of Section 14.1 (Expiration)), Section 3.8 (Non-Exclusive License to Licensed Product CDx IP) (only to the extent provided in the second sentence of Section 14.1 (Expiration)), Section 4 (Financial Considerations) (with respect to all financial obligations arising or accruing prior to the effective date and time of termination and, to the extent this Agreement or specific terms under this Agreement survive termination of this Agreement, any financial obligations resulting therefrom), Section 5 (Royalty Reports and Accounting), Section 6 (Payments), Section 8.5 (Development Data), Section 12 (Confidentiality), Section 13 (Intellectual Property), Section 14.1 (Expiration), Section 14.7 (Effect of Expiration or Termination), Section 14.8 (Survival), Section 15 (Indemnification; Insurance) (except for Section 15.5 (Insurance)), Section 16 (Dispute Resolution), Section 17 (Force Majeure), and Section 18 (Miscellaneous), as well as any rights, obligations, and duties which by their nature extend beyond the expiration or termination of this Agreement, shall survive any expiration or termination of this Agreement in accordance with their terms. In addition, Corbus's obligations under Section 4.4 (Non-Royalty Sublicense Income) with respect to Sublicenses granted prior to expiration or termination of this Agreement shall survive such expiration or termination.

15. INDEMNIFICATION; INSURANCE

15.1 By CSPC. Subject to Section 15.3 (Procedure), CSPC shall defend, indemnify, and hold harmless Corbus and its Affiliates and Sublicensees, and their respective directors, officers, employees, and agents (each, a “Corbus Indemnitee”) from and against any and all costs, fees, expenses, losses, liabilities, and damages, including reasonable legal expenses and attorneys’ fees (collectively, “Losses”) to which any Corbus Indemnitee may become subject as a result of any claim, demand, action, or other proceeding by any Third Party (a “Claim”) to the extent such Losses arise out of: (a) the gross negligence or willful misconduct of any of the CSPC Indemnitees in connection with its activities under this Agreement; (b) the breach of this Agreement by CSPC or the breach of representations, warranties, and covenants made hereunder by CSPC; (c) CSPC’s or any of its Affiliates’ or licensee’s Development or Commercialization of a Licensed Product in the Excluded Territory; or (d) CSPC’s or any of its Affiliates’ Development of a Licensed Product prior to the Effective Date; except, in each case, to the extent caused by the negligence or willful misconduct of or breach of this Agreement or the Master Supply Agreement by Corbus or any Corbus Indemnitee.

15.2 By Corbus. Subject to Section 15.3 (Procedure), Corbus shall defend, indemnify and hold harmless CSPC, its Affiliates, and their respective directors, officers, employees, and agents (each, an “CSPC Indemnitee”) from and against any and all Losses to which any CSPC Indemnitee may become subject as a result of any Claim to the extent such Losses arise out of: (a) the gross negligence or willful misconduct of any of the Corbus Indemnitees in connection with its activities under this Agreement; (b) the breach of this Agreement by Corbus or the breach of representations, warranties, and covenants made hereunder by Corbus; or (c) Corbus’s Development or Commercialization of a Licensed Product in the Collaborative Territory; except, in each case, to the extent caused by the negligence or willful misconduct of or breach of this Agreement or the Master Supply Agreement by CSPC or any CSPC Indemnitee.

15.3 Procedure. A Party or any of its indemnitees that intends to claim indemnification under this Section 15 (Indemnification; Insurance) (the “Indemnitee”) shall promptly notify the other Party (the “Indemnitor”) in writing of any Claim in respect of which the Indemnitee intends to claim such indemnification. The failure to deliver written notice to the Indemnitor within a reasonable time after the commencement of any action with respect to a Claim shall not relieve the Indemnitor of its indemnification obligations under this Section 15 (Indemnification; Insurance), except to the extent the Indemnitor is materially prejudiced by such failure. The Indemnitor has sole control of the defense or settlement thereof. The Indemnitee shall cooperate fully with the Indemnitor and its legal representatives in the investigation of any action with respect to a Claim covered by this indemnification. The Indemnitee may participate at its expense in the Indemnitor’s defense of and settlement negotiations for any Claim with counsel of the Indemnitee’s own selection. The Indemnitor shall not settle any Claim without the prior written consent of the Indemnitee, not to be unreasonably withheld, conditioned, or delayed. So long as the Indemnitor is actively defending the Claim in good faith, the Indemnitee shall not settle or compromise any such Claim without the prior written consent of the Indemnitor. If the Indemnitor does not assume and conduct the defense of the Claim as provided above: (a) the Indemnitee may defend against, consent to the entry of any judgment, or enter into any settlement with respect to such Claim in any manner the Indemnitee may deem reasonably appropriate (and the Indemnitee need not consult with, or obtain any consent from, the Indemnitor in connection therewith); and (b)

the Indemnitor shall remain responsible to indemnify the Indemnitee as provided in this Section 15 (Indemnification; Insurance).

15.4 LIMITATION OF LIABILITY. NEITHER PARTY NOR THEIR RESPECTIVE AFFILIATES SHALL BE LIABLE TO THE OTHER PARTY OR ITS AFFILIATES FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, PUNITIVE, OR INDIRECT DAMAGES, OR FOR ANY LOSS OF PROFITS OR REVENUE (AND, FOR CLARITY, NEITHER PARTY NOR ANY OF THEIR RESPECTIVE AFFILIATES SHALL BE ENTITLED TO RECOVER FOR ANY LOST PROFIT OR LOST REVENUE DAMAGES WHETHER SUCH DAMAGES ARE CLAIMED AS DIRECT OR INDIRECT DAMAGES), ARISING FROM OR RELATING TO THIS AGREEMENT, WHETHER IN CONTRACT, WARRANTY, TORT, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE, REGARDLESS OF ANY NOTICE OF THE POSSIBILITY OF SUCH DAMAGES. NOTWITHSTANDING THE FOREGOING, NOTHING IN THE FOREGOING SENTENCE IS INTENDED TO OR SHALL LIMIT OR RESTRICT: (A) THE INDEMNIFICATION RIGHTS OR OBLIGATIONS OF ANY PARTY UNDER SECTION 15.1 (BY CSPC) AND SECTION 15.2 (BY CORBUS); (B) DAMAGES AVAILABLE FOR A PARTY'S BREACH OF ITS CONFIDENTIALITY AND NON-USE OBLIGATIONS UNDER SECTION 12 (CONFIDENTIALITY); OR (C) DAMAGES AVAILABLE FOR A PARTY'S FRAUD OR WILLFUL MISCONDUCT OR BREACH OF SECTION 3.5 (NON-COMPETE).

15.5 Insurance. During the Term of this Agreement, each Party shall maintain such types and amounts of liability insurance as is normal and customary in the industry generally for similarly situated Parties and adequate to cover its obligations under this Agreement. Each Party shall provide the other Party with evidence of such insurance upon request. Such insurance shall not be construed to create a limit of either Party's liability with respect to its indemnification obligations under this Section 15 (Indemnification) or otherwise.

16. DISPUTE RESOLUTION

16.1 Dispute Escalation. Except as provided in Section 7.1.4(b) (Final Decision Authority) and Section 16.5 (Patent and Trademark Disputes), upon the written request of either Party to the other Party, either Party may refer any claim, dispute, or controversy or claim arising out of or related to this Agreement (a "Dispute") to the Executive Officer of Corbus and the Executive Officer of CSPC for resolution. If the Executive Officers are unable to resolve such matter within [***] after the initial written request, then, upon the written demand of either Party, the Parties shall resolve such matter by binding arbitration, as provided in Section 16.2 (Arbitration). Any Disputes about the propriety of commencing arbitration or the scope or applicability of the agreement to arbitrate shall be finally settled by the arbitral tribunal.

16.2 Arbitration

(a) Any Dispute shall be resolved by final and binding arbitration under the commercial arbitration procedures of the American Arbitration Association ("AAA") and administered by AAA in accordance with its Commercial Arbitration Rules as then in effect (the "Rules"), except as they be modified herein or by mutual agreement of the Parties.

(b)The arbitration shall be conducted by a panel of three (3) arbitrator(s) appointed in accordance with the Rules; provided that: (i) no such arbitrator is not a current or former employee or director, or current stockholder, of either Party, any of their respective Affiliates or any of their Sublicensees; and (ii) each arbitrator has experience and familiarity with commercial licensing practices in the pharmaceutical and biotechnology industries. The seat, or legal place, of arbitration shall be New York, New York, USA, and all proceedings and communications shall be in the English language.

(c)The arbitral tribunal shall permit discovery (including both the production of documents and deposition testimony) as reasonably necessary for an understanding of any legitimate issue raised in the arbitration, while also taking into account the desirability of making discovery efficient and cost-effective, and, in addition to the authority conferred upon the arbitral tribunal by such Rules, the arbitral tribunal shall have the authority to order production of documents in accordance with the IBA Rules on the Taking of Evidence in International Arbitration as current on the commencement of the arbitration.

(d)The arbitral tribunal shall have the power to grant any remedy or relief that it deems appropriate, whether provisional or final, including conservatory relief and injunctive relief, provided that the arbitral tribunal's authority to award special, incidental, consequential, or punitive damages is subject to the limitation set forth in Section 15.4 (Limitation of Liability), except to the extent the substantive laws of the State of New York, United States, do not permit such limitation. The award shall be rendered within [***] of the appointment of the arbitral tribunal unless the Parties jointly request an extension, or the arbitral tribunal determines, in a reasoned decision that the interest of justice or the complexity of the case requires that such limit be extended.

(e)The arbitration award shall be final and binding on the Parties, and the Parties undertake to carry out the award without delay. Judgment upon the award may be entered in any court of competent jurisdiction.

(f)During the pendency of the arbitration, each Party shall bear its own attorneys' fees, costs, and disbursements arising out of the arbitration, and shall pay an equal share of the fees and costs of the arbitration and the arbitral tribunal shall fix costs in the arbitral award in accordance with the Rules.

16.3Confidentiality of Arbitration. The existence and content of the arbitral proceedings and any rulings or awards shall be kept confidential by the Parties and the arbitral tribunal except: (a) to the extent that disclosure may be required of a Party to fulfill a legal duty, protect, or pursue a legal right, or enforce or challenge an award in bona fide legal proceedings before a state court or other judicial authority; (b) with the consent of all Parties; (c) where needed for the preparation or presentation of a claim or defense in this arbitration; (d) where such information is already in the public domain other than as a result of a breach of this clause; or (e) by order of the arbitral tribunal upon application of a Party.

16.4Injunctive Relief; Court Actions. Either Party may apply to the arbitrators for interim injunctive relief until the arbitration award is rendered or the controversy is otherwise resolved. Either Party also may, without waiving any remedy under this Agreement, seek from any

court having jurisdiction any interim injunctive or other interim relief in the context of a *bona fide* emergency or prospective irreparable harm, and such an action may be filed and maintained notwithstanding any ongoing discussions between the Parties or any ongoing arbitration proceeding. In addition, subject to Section 16.5 (Patent and Trademark Disputes) below, either Party may bring an action in any court of competent jurisdiction to resolve disputes pertaining to the validity, construction, scope, enforceability, infringement or other violations of Patents or other Intellectual Property Rights, and no such claim shall be subject to arbitration pursuant to Section 16.2 (Arbitration).

16.5 Patent and Trademark Disputes. Any dispute, controversy, or claim relating to the scope, validity, enforceability, or infringement of any Patents or trademarks covering the Manufacture, use, Development, or Commercialization of a Licensed Product shall be submitted to a court of competent jurisdiction in the country in which such patent or trademark rights were granted or arose.

17. FORCE MAJEURE

Neither Party shall be held liable or responsible to the other Party nor be deemed to have defaulted under or breached this Agreement for failure or delay in fulfilling or performing any term of this Agreement to the extent, and for so long as, such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party including fire, floods, pandemics, embargoes, war, acts of war (whether war be declared or not), acts of terrorism, insurrections, riots, civil commotions, strikes, lockouts or other labor disturbances, acts of God or acts, omissions, or delays in acting by any Governmental Authority (each, a "Force Majeure Event"). Notwithstanding the foregoing, a Party shall not be excused from making payments owed hereunder because of a Force Majeure Event affecting such Party, subject to Section 6.3 (Currency). If a Force Majeure Event persists for more than [***] days, the Parties shall discuss in good faith the modification of the Parties' obligations under this Agreement in order to mitigate the delays caused by such Force Majeure Event.

18. MISCELLANEOUS

18.1 Relationship of the Parties. The relationship between CSPC and Corbus, as established by this Agreement, is solely that of independent contractors. This Agreement does not create any partnership, joint venture, or similar business relationship between CSPC and Corbus. Neither CSPC nor Corbus is a legal representative of the other Party, and neither CSPC nor Corbus can assume or create any obligation, representation, warranty, or guarantee, express or implied, on behalf of the other Party for any purpose whatsoever.

18.2 Rights in Bankruptcy. All rights and licenses granted under or pursuant to this Agreement by one Party to the other Party are, and otherwise shall be deemed to be, for purposes of Section 365(n) of the U.S. Bankruptcy Code or any comparable provision of applicable bankruptcy or insolvency laws, licenses of right to "intellectual property" as defined under Section 101 of the U.S. Bankruptcy Code or comparable provision of applicable bankruptcy or insolvency laws. The Parties agree that a Party that is a licensee of such rights under this Agreement shall retain and may fully exercise all of its rights and elections under the U.S. Bankruptcy Code or comparable provision of applicable bankruptcy or insolvency laws.

18.3 Notices. Any notice, request, delivery, approval, or consent required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been sufficiently given if delivered in-person, transmitted by electronic mail (receipt verified) or by express courier service (signature required), or five (5) business days after it was sent by registered letter, return receipt requested (or its equivalent), to the Party to which it is directed at its address shown below or such other address as provided in writing by one (1) Party to the other Party.

If to CSPC:

CSPC Megalith Biopharmaceutical Co., Ltd.
519, Cangsheng Road, High-Tech Development Zone
Shijiazhuang, Hebei, China
Attn: Executive Assistant, Chairman's Office

with a copy to:

CSPC Pharmaceutical Group Limited
302 Carnegie Center Blvd, Suite 100
Princeton, NJ 08540
Attn: President, International Division
Email: [***]

with a copy to (which shall not constitute notice):

Morrison & Foerster LLP
200 Clarendon Street, Floor 21
Boston, MA 02116
Attn: Matthew Karlyn, Esq.
Email: [***]

If to Corbus:

Corbus Pharmaceuticals, Inc.
500 River Ridge Dr
Norwood, MA 02062
Attn: Chief Executive Officer
Email: [***]

with a copy to (which shall not constitute notice):

Lowenstein Sandler LLP
One Lowenstein Drive
Roseland, New Jersey 07068
Attn: Michael J. Lerner, Esq.
Email: [***]

If more than one (1) method for sending notice as set forth above is used, the earliest notice date established as set forth above shall control. It is understood and agreed that this Section

18.3 (Notices) is not intended to govern the day-to-day business communications necessary between the Parties in performing their duties, in due course, under the terms of this Agreement.

18.4Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the State of New York, without regard to the conflicts of law principles thereof.

18.5Assignment. Neither Party shall assign its rights or obligations under this Agreement without the prior written consent of the other Party; *provided, however*, that either Party may, without such consent, assign this Agreement and its rights and obligations hereunder: (a) to any Affiliate; *provided, however*, that such assigning Party shall remain liable and responsible to the non-assigning Party hereto for the performance and observance of all such duties and obligations by such Affiliate; or (b) in connection with the transfer or sale of all or substantially all of its business to which this Agreement relates (including pursuant to a collateral assignment and/or grant of a security interest in such situation) (or, in the case of an assignment of this Agreement by Corbus, to any acquirer of its rights to a Licensed Product), or in the event of its merger, consolidation, change in control or similar transaction. Any permitted assignee shall assume all obligations of its assignor under this Agreement. Any purported assignment in violation of this Section 18.5 (Assignment) shall be null and void *ab initio*.

18.6Amendments. No change, modification, extension, termination, or waiver of this Agreement, or any of the provisions herein contained, shall be valid unless made in writing and signed by duly authorized representatives of the Parties hereto.

18.7Entire Agreement. This Agreement (together with its Exhibits and attachments) embodies the entire agreement between the Parties with respect to the subject matter hereof and thereof and supersedes any prior representations, understandings, and agreements between the Parties regarding the subject matter hereof and thereof (including that certain Licensing and Co-development Non-Binding Term Sheet for SYS6002 between CSPC Group and Corbus Pharmaceuticals Holdings, Inc. [***]). There are no representations, understandings, or agreements, oral or written, between the Parties regarding the subject matter hereof that are not fully expressed herein. In the event of any inconsistency between the terms of the Master Supply Agreement and this Agreement, the terms of this Agreement shall prevail.

18.8Severability. Any of the provisions of this Agreement which are determined to be invalid or unenforceable in any jurisdiction shall be ineffective to the extent of such invalidity or unenforceability in such jurisdiction, without rendering invalid or unenforceable the remaining provisions hereof and without affecting the validity or enforceability of any of the terms of this Agreement in any other jurisdiction.

18.9Waiver. The waiver by either Party hereto of any right hereunder or the failure to perform or of a breach by the other Party shall not be deemed a waiver of any other right hereunder or of any other breach or failure by said other Party whether of a similar nature or otherwise.

18.10Interpretation. The headings of clauses contained in this Agreement preceding the text of the sections, subsections, and paragraphs hereof are inserted solely for

convenience and ease of reference only and shall not constitute any part of this Agreement, or have any effect on its interpretation or construction. Unless otherwise specified, references to any Section shall include all subsections and paragraphs in such Section, and references in this Agreement to any subsection shall include all paragraphs in such subsection. All references to days in this Agreement means calendar days, unless otherwise specified. Ambiguities and uncertainties in this Agreement, if any, shall not be interpreted against either Party, irrespective of which Party may be deemed to have caused the ambiguity or uncertainty to exist. This Agreement has been prepared in the English language and the English language shall control its interpretation. In addition, all notices required or permitted to be given hereunder, and all written, electronic, oral, or other communications between the Parties regarding this Agreement shall be in the English language.

18.11 Construction. Except where the context expressly requires otherwise: (a) the use of any gender herein encompasses references to either or both genders, and the use of the singular shall be deemed to include the plural (and vice versa); (b) the words “include”, “includes” and “including” are deemed followed by the phrase “without limitation”; (c) any definition of or reference to any agreement, instrument or other document herein refers to such agreement, instrument or other document as from time to time amended, supplemented or otherwise modified (subject to any restrictions on such amendments, supplements or modifications set forth herein); (d) any reference herein to any person includes the person’s successors and assigns; (e) the words “herein”, “hereof” and “hereunder”, and words of similar import, refer to this Agreement in its entirety and not to any particular provision hereof; (f) all references herein to Sections or Exhibits refer to Sections or Exhibits of this Agreement, and references to this Agreement include all Exhibits hereto; and (g) the word “or” is disjunctive but not necessarily exclusive.

18.12 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 (1) and the same instrument.

**The remainder of this page is intentionally left blank.
Signatures are on the next page.**

IN WITNESS WHEREOF, the Parties have executed this Agreement effective as of the Effective Date.

CSPC MEGALITH BIOPHARMACEUTICAL CO., LTD.

By: _____
Name: _____
Title _____

CORBUS PHARMACEUTICALS, INC.

By: _____
Name: _____
Title _____

[signature page to Exclusive License Agreement]

EXHIBIT A
ANTIBODY SEQUENCE

EXHIBIT B
LICENSED PATENTS

[***]

EXHIBIT C

VOLUNTARY ANNOUNCEMENT OF CSPC

EXCLUSIVE LICENSE AGREEMENT FOR SYS6002 WITH CORBUS PHARMACEUTICALS

The board of directors (the “**Board**”) of CSPC Pharmaceutical Group Limited (the “**Company**”, together with its subsidiaries, the “**Group**”) is pleased to announce that CSPC Megalith Biopharmaceutical Co., Ltd. (“**CSPC Megalith**”), a subsidiary of the Company, has entered into an exclusive license agreement (the “**Agreement**”) with Corbus Pharmaceuticals, Inc. (“**Corbus Pharmaceuticals**”) for the development and commercialization of the Group’s SYS6002, A RECOMBINANT ANTI-HUMAN NECTIN-4 ANTIBODY-MMAE ANTIBODY-DRUG CONJUGATE (ADC) (the “**Product**”) in the United States, Canada, member countries of the European Union, Iceland, Liechtenstein, Norway, Switzerland, United Kingdom, and Australia (the “**Territory**”). CSPC Megalith will retain all rights in the rest of global markets including Great China, South East Asia, Middle East, Africa, Japan, South Korea and South/Latin America.

Under the terms of the Agreement, CSPC Megalith agreed to grant an exclusive license to Corbus Pharmaceuticals to develop and commercialize the Product in the Territory. CSPC Megalith will receive an upfront payment of US\$7.5 million and is also eligible to receive up to US\$130 million in development and regulatory milestone payments and up to US\$555 million in sales milestone payments. The Group is also eligible to receive tiered royalty based on annual net sales of the Product in the Territory (including tiered double-digit percent in the United States).

About SYS6002

The Product employs CSPC’s proprietary enzyme-catalyzed site-specific antibody conjugation technology to direct the potent mitotic inhibitor MMAE specifically to Nectin-4 expressing cancer cells. The stability of the linker helps deliver high concentration of MMAE into the tumor and meanwhile limits side effects by reducing undesired systemic exposure.

Nectin-4 promotes the tumor proliferation, angiogenesis and lymphangiogenesis, and lymph metastasis and its expression level is very low in healthy adult human tissue. However, in many types of cancer including bladder, triple negative breast, lung, colorectal, pancreatic and ovarian cancers, expression of Nectin-4 is reactivated and expressed at high level. The upregulation of Nectin-4 is also an independent biomarker for poor overall survival in several cancer types.

Due to its selective expression in cancer, Nectin-4 has been a promising targeted therapy target for various cancers. The first NECTN4 targeting medicine is PADCEV® (generic name enfortumab vedotin-ejfv), an ADC of enfortumab, a monoclonal antibody targeting human Nectin-4, conjugated via a cleavable dipeptide linker with the microtubule inhibitor MMAE. It was approved by the FDA in 2019 for the treatment of locally advanced or metastatic urothelial carcinoma (mUC, the most common bladder cancer). Continued clinical development of PADCEV® has shown expanded utility in earlier lines of bladder cancer. Recent results from Phase III clinical study of PADCEV® showed that compared with chemotherapy, the response and survival rates were significantly improved in patients with advanced urothelial carcinoma in PADCEV® monotherapy. In addition, combination treatment with enfortumab vedotin-ejfv (PADCEV®) and pembrolizumab (Keytruda)

yielded a high overall response rate and a manageable safety profile in patients with locally advanced or metastatic urothelial cancer. However, patients receiving PADCEV® can develop severe and fatal cutaneous adverse reactions including Stevens-Johnson syndrome and Toxic Epidermal Necrolysis (TEN), predominantly during the first cycle of treatment (Black Box per PADCEV® USPI).

The Product was designed to have homogeneous DAR distribution, better stability of the proprietary linker and the reduced drug to antibody ratio (2 vs 4 in PADCEV®) which improve blood stability and tumor specific release for better safety profile and efficacy. Compared with PADCEV®, the Product showed higher or similar anti-tumor efficacy at the same dose level in all the in vivo cancer models. In addition, the Product safety profile observed in the toxicology studies was consistent with the anti-mitotic mechanism of action of MMAE and are similar to those observed with other antibody-MMAE conjugates.

About Corbus Pharmaceuticals

Corbus is a precision oncology company committed to helping people defeat serious illness by bringing innovative scientific approaches to well understood biological pathways. Corbus' current pipeline includes CRB-601, an anti-integrin monoclonal antibody which blocks the activation of TGFβ expressed on cancer cells, and CRB-701, a next generation antibody drug conjugate that targets the expression of Nectin-4 on cancer cells to release a cytotoxic payload. Corbus is headquartered in Norwood, Massachusetts.

EXHIBIT D
PRESS RELEASE OF CORBUS

Corbus Pharmaceuticals expands oncology pipeline with the addition of a clinical stage Nectin-4 targeting Antibody Drug Conjugate (ADC)

- *CRB-701 (SYS6002) is designed for improved therapeutic index and to act on a broad range of Nectin-4 expressing tumors*
- *Clinical development is underway and will focus on urothelial cancer and other Nectin-4-positive solid tumors potentially including lung, breast and prostate cancer*
- *Licensing agreement with CSPC Pharmaceutical Group grants exclusive development and commercialization rights in the United States, Canada, Europe and Australia*
- *A reverse stock split of 1:30 will be carried out in conjunction with this deal effective on February 14, 2023*

Norwood, MA, February 13, 2023 (PR NEWSWIRE) -- Corbus Pharmaceuticals Holdings, Inc. (NASDAQ: CRBP) (“Corbus” or the “Company”), a precision oncology company, today announced that it has entered into an exclusive licensing agreement with CSPC Megalith Biopharmaceutical Co., Ltd, a subsidiary of CSPC Pharmaceutical Group Limited (CSPC; HKEX: 01093) for development and commercialization of CRB-701 (SYS6002): a novel clinical stage antibody drug conjugate (ADC) targeting Nectin-4. The agreement covers exclusive commercialization rights to CRB-701 in the United States, Canada, the European Union (including the European Free Trade Area), the United Kingdom, and Australia. CSPC will retain all rights to SYS6002 in the remaining global markets. The IND for CRB-701 has been cleared by the US FDA. CRB-701 is currently being investigated by CSPC in a Phase 1 dose escalation clinical trial in advanced solid tumors in China. Corbus is planning to bridge data from this Phase 1 trial to support a US clinical trial starting in 2024. Corbus and CSPC will work collaboratively to execute the clinical development of CRB-701 with Corbus responsible for the clinical development in the US and other licensed territories.

“This agreement adds a promising clinical-stage asset with a validated mechanism of action to our pipeline and reinforces the evolution of Corbus into a precision oncology company. We will leverage the R&D infrastructure that we have established for our TGFβ modulator (CRB-601) to also enhance our understanding of Nectin-4,” said Yuval Cohen, Ph.D., Chief Executive Officer of Corbus. “By combining recent cost-reduction measures as well as prioritization of resources to this new program, we can maintain our previously stated cash runway through the second quarter of 2024.”

CSPC will receive an upfront payment of \$7.5 million. CSPC will also be eligible to receive royalties on net sales and up to \$130 million in potential development and regulatory milestone payments and \$555 million in potential commercial milestone payments.

“CRB-701 has several key features that support a differentiated profile,” said Rachael Brake, Ph.D., Chief Scientific Officer of Corbus. “These include site specific conjugation chemistry that leads to low payload release in plasma, a novel Fc-enabled antibody with an improved pharmacokinetic profile and toxicology

data that suggests that there is an ability to achieve higher exposures with CRB-701. We look forward to working with CSPC to advance clinical development of this asset and realize its full potential.”

“This partnership with Corbus, is an example of our focused effort to bring our innovative pipeline overseas to help patients battling cancer. We look forward to collaborating with Corbus with the goal of developing this ADC as a potentially impactful treatment option to patients in need,” said Zhang Cuilong, Chief Executive Officer of CSPC.

Reverse Stock Split

Concurrent with the licensing agreement, Corbus also announced a 1-for-30 reverse stock split of its common stock, effective on February 14, 2023. Beginning on February 14, 2023, the Company’s common stock will continue to trade on The Nasdaq Capital Market on a reverse split adjusted basis under the trading symbol ‘CRBP’, but will trade under the following CUSIP number 21833P301: The reverse stock split was approved by Corbus stockholders on December 20th and is intended to increase the Company's stock price to regain compliance with the \$1.00 minimum bid price requirement of The NASDAQ Capital Market. Upon effectiveness of the reverse stock split, every thirty shares of common stock issued and outstanding will be automatically converted into one share of Corbus common stock, with no corresponding reduction in the number of authorized shares of the common stock. Any fraction of a share of common stock that would be created will be paid out to stockholders in cash equal to such fraction multiplied by the average of the closing sales prices of the common stock on The Nasdaq Capital Market for the five consecutive trading days immediately preceding the effective date of the reverse split, adjusted to give effect to the 1-for-30 reverse split.

For additional information on the reverse stock split, please refer to Corbus’ Current Report on Form 8-K filed today, February 13, 2023.

About Corbus

Corbus is a precision oncology company committed to helping people defeat serious illness by bringing innovative scientific approaches to well understood biological pathways. Corbus’ current pipeline includes CRB-601, an anti-integrin monoclonal antibody that blocks the activation of TGFβ expressed on cancer cells, and CRB-701, a next generation antibody drug conjugate that targets the expression of Nectin-4 on cancer cells to release a cytotoxic payload. Corbus is headquartered in Norwood, Massachusetts. For more information on Corbus, visit corbuspharma.com. Connect with us on Twitter, LinkedIn and Facebook.

About CSPC Pharmaceutical Group Limited

CSPC is a leading pharmaceutical conglomerate in China with strong capabilities in research and development, manufacturing, and marketing of innovative drugs. The Company was listed on the Hong Kong Stock Exchange (stock code: HK1093) in 1994 and became a constituent stock of the Hang Sang Index in 2018. Currently, it is also a constituent stock of Hang Seng Composite Index, Hang Seng Healthcare Index, Hang Seng Mainland Healthcare Index, Hang Seng Stock Connect Index, Hang Seng (Hong Kong-listed) 100 Index and Hang Seng China Enterprise Index. CSPC has more than 24,000 employees. CSPC has a national top research and development team with research and development bases in Shijiazhuang, Shanghai, Beijing, and the United States, focusing on the discovery, research and development of small molecule

targeted drugs, nanodrugs, monoclonal antibody drugs, bispecific antibody drugs, antibody-drug conjugates, mRNA vaccines, small nucleic acid drugs and biological drugs in the immune field. For more information, please visit its website at [CSPC Pharmaceutical Group Limited](#).

Forward-Looking Statements

This press release contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and Private Securities Litigation Reform Act, as amended, including those relating to the Company's restructuring, trial results, product development, clinical and regulatory timelines, market opportunity, competitive position, possible or assumed future results of operations, business strategies, potential growth opportunities, the Company's compliance with Nasdaq's continued listing criteria and other statement that are predictive in nature. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate and management's current beliefs and assumptions.

These statements may be identified by the use of forward-looking expressions, including, but not limited to, "expect," "anticipate," "intend," "plan," "believe," "estimate," "potential," "predict," "project," "should," "would" and similar expressions and the negatives of those terms. These statements relate to future events or our financial performance and involve known and unknown risks, uncertainties, and other factors, including whether the Company will be able to regain and maintain compliance with Nasdaq's continued listing criteria, the potential impact of the COVID-19 pandemic and the potential impact of sustained social distancing efforts, on our operations, clinical development plans and timelines, which may cause actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include those set forth in the Company's filings with the Securities and Exchange Commission. Prospective investors are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date of this press release. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

INVESTOR CONTACT:

Sean Moran

Chief Financial Officer

Corbus Pharmaceuticals, Inc.

sean.moran@corbuspharma.com

Bruce Mackle

Managing Director

LifeSci Advisors, LLC

bmackle@lifesciadvisors.com

EXHIBIT E
EU-PLUS COUNTRIES

[***]

SUSIDIARIES OF CORBUS PHARMACEUTICALS HOLDINGS, INC.

<u>Name of Organization</u>	<u>Jurisdiction</u>
Corbus Pharmaceuticals, Inc.	Delaware
Corbus International Limited	United Kingdom
Corbus Pharmaceuticals Australia Pty Ltd	Australia

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Registration Statements of Corbus Pharmaceuticals Holdings, Inc. on Form S-3 (No. 333-237588) and Form S-8 (Nos. 333-200350, 333-201898, 333-210428, 333-216547, 333-223745, 333-230219, 333-237240, and 333-254350) of our report dated March 7, 2023, on our audits of the financial statements as of December 31, 2022 and 2021 and for each of the years then ended, which report is included in this Annual Report on Form 10-K to be filed on or about March 7, 2023.

/s/ EisnerAmper LLP

EISNERAMPER LLP
Philadelphia, Pennsylvania
March 7, 2023

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT
TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Yuval Cohen, certify that:

1. I have reviewed this annual report on Form 10-K for the period ended December 31, 2022 of Corbus Pharmaceuticals Holdings, Inc.;
 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.
-

Date: March 7, 2023

/s/ Yuval Cohen

Yuval Cohen

Chief Executive Officer

(Principal Executive Officer)

**CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT
TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Sean M. Moran, certify that:

1. I have reviewed this annual report on Form 10-K for the period ended December 31, 2022 of Corbus Pharmaceuticals Holdings, Inc.;
 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.
-

Date: March 7, 2023

/s/ Sean Moran

Sean Moran

Chief Financial Officer

(Principal Accounting and Financial Officer)

**Certification of Chief Executive Officer Pursuant to
18 U.S.C. Section 1350,
as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

This Certification is being filed pursuant to 18 U.S.C. Section 1350, as adopted by Section 906 of the Sarbanes-Oxley Act of 2002. This Certification is included solely for the purposes of complying with the provisions of Section 906 of the Sarbanes-Oxley Act and is not intended to be used for any other purpose. In connection with the accompanying Annual Report on Form 10-K of Corbus Pharmaceuticals Holdings, Inc. for the year ended December 31, 2022, each of the undersigned hereby certifies in his capacity as an officer of Corbus Pharmaceuticals Holdings, Inc. that to such officer's knowledge:

- (1) The Annual Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 7, 2023

By: */s/ Yuval Cohen*
Yuval Cohen
Chief Executive Officer
(Principal Executive Officer)

**Certification of Chief Financial Officer Pursuant to
18 U.S.C. Section 1350,
as Adopted Pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002**

This Certification is being filed pursuant to 18 U.S.C. Section 1350, as adopted by Section 906 of the Sarbanes-Oxley Act of 2002. This Certification is included solely for the purposes of complying with the provisions of Section 906 of the Sarbanes-Oxley Act and is not intended to be used for any other purpose. In connection with the accompanying Annual Report on Form 10-K of Corbus Pharmaceuticals Holdings, Inc. for the year ended December 31, 2022, each of the undersigned hereby certifies in his capacity as an officer of Corbus Pharmaceuticals Holdings, Inc. that to such officer's knowledge:

- (1) The Annual Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: March 7, 2023

By: */s/ Sean Moran*
 Sean Moran
 Chief Financial Officer
 (Principal Accounting and Financial Officer)
