UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

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

For the Fiscal Year Ended December 31, 2016
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 No. 000-55668

MUSTANG BIO, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**47-3828760**
(State or Other Jurisdiction of Incorporation or Organization)	**(I.R.S. Employer Identification No.)**
2 Gansevoort Street, 9th Floor **New York, New York 10014**	**10014**
(Address of Principal Executive Offices)	**(Zip Code)**

Registrant's telephone number, including area code: (781) 652-4500

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

(Title of Class)	**(Name of exchange on which registered)**
Common Stock, par value $0.001 per share	**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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (Do not check if a smaller reporting company)	Smaller reporting company	☐

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

As of March 30, 2017, there were 24,976,289 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement for its 2017 Annual Meeting of Stockholders currently scheduled to be held on June 15, 2017 are incorporated by reference into Part III hereof.

MUSTANG BIO, INC.
ANNUAL REPORT ON FORM 10-K
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SPECIAL CAUTIONARY NOTICE REGARDING FORWARD-LOOKING STATEMENTS

Certain matters discussed in this annual report on Form 10-K ("Form 10-K") may constitute forward-looking statements for purposes of the Securities Act of 1933, as amended (the "Securities Act") and the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from the future results, performance or achievements expressed or implied by such forward-looking statements. The words "anticipate," "believe," "estimate," "may," "expect" and similar expressions are generally intended to identify forward-looking statements. Our actual results may differ materially from the results anticipated in these forward-looking statements due to a variety of factors, including, without limitation, those discussed under the captions "Risk Factors," and elsewhere in this Form 10-K. All written or oral forward-looking statements attributable to us are expressly qualified in their entirety by these cautionary statements. Such forward-looking statements include, but are not limited to, statements about our:

- expectations for increases or decreases in expenses;
- expectations for the clinical and pre-clinical development, manufacturing, regulatory approval, and commercialization of our pharmaceutical product candidates or any other products we may acquire or in-license;
- our use of clinical research centers and other contractors;
- expectations for incurring capital expenditures to expand our research and development and manufacturing capabilities;
- expectations for generating revenue or becoming profitable on a sustained basis;
- expectations or ability to enter into marketing and other partnership agreements;
- expectations or ability to enter into product acquisition and in-licensing transactions;
- expectations or ability to build our own commercial infrastructure to manufacture, market and sell our drug candidates;
- acceptance of our products by doctors, patients or payors;
- our ability to compete against other companies and research institutions;
- our ability to secure adequate protection for our intellectual property;
- our ability to attract and retain key personnel;
- availability of reimbursement for our products;
- estimates of the sufficiency of our existing cash and cash equivalents and investments to finance our operating requirements, including expectations regarding the value and liquidity of our investments;
- the volatility of our stock price;
- expected losses; and
- expectations for future capital requirements.

The forward-looking statements contained in this Form 10-K reflect our views and assumptions as of the effective date of this Form 10-K. Except as required by law, we assume no responsibility for updating any forward-looking statements.

We qualify all of our forward-looking statements by these cautionary statements.

PART I

Item 1. Business

OVERVIEW

We are a clinical-stage biopharmaceutical company focused on the development and commercialization of novel cancer immunotherapy products designed to utilize the power of the patient's own immune system to eliminate cancer cells. We aim to acquire rights to these technologies by licensing or otherwise acquiring an ownership interest in the technologies, funding their research and development and eventually either out-licensing or bringing the technologies to market. We are currently developing our proprietary Chimeric Antigen Receptor (CAR) engineered T cells (CAR-T) technology, which we licensed from Dr. Stephen Forman's laboratory at the City of Hope National Medical Center (COH). CAR-T uses the patient's own T cells to engage and destroy specific tumors. The process involves selecting specific T cell subtypes, genetically engineering them to express chimeric antigen T cell receptors and placing them back in the patient where they recognize and destroy cancer cells.

Several companies have promising CAR-T therapies that are in various phases of clinical and pre-clinical development and which target different cancer indications. Pursuant to the COH license agreement, we obtained an exclusive license to intellectual property rights pertaining to several CAR-T patents developed by COH for the treatment and diagnosis of all human diseases. Since the license is exclusive, worldwide and granted to us comprehensive rights as to use, manufacture and sale, thereby conveying practical ownership of the intellectual property to us. We therefore view such intellectual property as proprietary.

Our exclusive license and sponsored research agreement with Dr. Stephen Forman's laboratory at the COH encompasses specific chimeric T cell constructions and enabling process technologies including linker technology improvements. This agreement covers the discovery, manufacturing and clinical development of novel CAR-T cells along with specified rights to any and all inventions.

We are currently in Phase 1 trials treating glioblastoma patients. Dr. Forman's laboratory has developed MB-101, a proprietary engineered CAR-T cells targeting Interleukin13 Receptor a2 or MB-101, which is overexpressed on the surface of glioblastoma cells. On December 29, 2016 an article in the New England Journal of Medicine reported that a patient enrolled in the Phase 1 glioblastoma trial treated with MB-101 achieved a complete response.

We have started another Phase 1 study for the treatment of patients with acute myeloid leukemia (AML) with CD123 specific CAR-T we licensed from COH (MB-102). Dr. Forman's laboratory has developed a proprietary CAR-based targeting of CD123, which is overexpressed on the surface of AML cells.

Additionally, under our sponsored preclinical research agreement with COH, the COH is developing additional CAR-T cell constructions targeting a number of tumor associated antigens specific for the variety of solid and hematological malignancies. The effectiveness of certain of these additional CAR-T cell constructs already has been demonstrated in preclinical studies with mouse xenograft models of specific human tumors. Under the sponsored research agreement, we have the right to license newly developed CAR-T constructs. We intend to further pursue preclinical development to validate and seek to establish the proprietary nature of the most promising CAR-T approaches coming out of the sponsored research program and, if successful, we would license and take forward into clinical studies.

To date, we have not received approval for the sale of our product candidates in any market and, therefore, have not generated any product sales from our product candidates.

We are a majority controlled subsidiary of Fortress Biotech, Inc. ("Fortress").

CORPORATE INFORMATION

Mustang Bio, Inc. was incorporated in Delaware on March 13, 2015. Our executive offices are located at 2 Gansevoort Street, New York, NY 10014. Our telephone number is (781) 652-4500, and our email address is info@mustangbio.com.

Our website address is www.mustangbio.com. The information set forth on our website is not a part of this report. We will make available free of charge through our website our annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, and any amendments to these reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the Securities and Exchange Commission, or SEC. We are not including the information on our website as a part of, nor incorporating it by reference into, this report. You may read and copy any materials we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Additionally, the SEC maintains a website that contains annual, quarterly, and current reports, proxy statements, and other information that issuers (including us) file electronically with the SEC. The SEC's website address is http://www.sec.gov/.

PRODUCTS UNDER DEVELOPMENT

IL13Ra2 CAR-T Cell or MB-101 Program for Glioblastoma

Glioblastoma multiforme (GBM) is the most common brain and central nervous system (CNS) cancer, accounting for 15.1% of all primary brain tumors, and 55.1% of all gliomas. There are an estimated 12,120 new glioblastoma cases predicted in 2016 in the U.S. Malignant brain tumors are the most common cause of cancer-related deaths in adolescents and young adults aged 15-39 and the most common cancer occurring among 15-19 year olds in the U.S. While GBM is a rare disease (2-3 cases per 100,000 persons per year in the U.S. and E.U.), it is quite lethal with 5-year survival rates historically under 10%. Standard of care therapy consists of maximal surgical resection, radiation and chemotherapy with temozolomide, which, while rarely curative, are shown to extend median overall survival from 4.5 to 15 months. GBM remains difficult to treat due to the inherent resistance of the tumor to conventional therapies.

Immunotherapy approaches targeting brain tumors offer promise over conventional treatments. IL13Ra2 is an attractive target for CAR-T therapy, as it has limited expression in normal tissue but is over-expressed on the surface of greater than 50% of GBMs. CAR-T cells are designed to express membrane-tethered IL-13 receptor ligand (IL-13) mutated at a single site (glutamic acid at position 13 to a tyrosine; E13Y) with high affinity for IL13Ra2 and reduced binding to IL13Ra1 in order to reduce healthy tissue targeting (Kahlon, Cancer Research 2004).

We are developing an optimized CAR-T product incorporating enhancements in CAR-T design and T cell engineering to improve antitumor potency and T cell persistence. We include a second generation hinge optimized CAR containing mutations in the IgG4 linker to reduce off target Fc interactions (Jonalaggada, Mol Therapy) as well as the 41BB (CD137) co-stimulatory signaling domain for improved survival and maintenance of CAR-T cells as well as extracellular domain of CD19as a selection/ tracking marker. In order to further improve persistence, central memory T-cells (T_{CM}) are isolated and enriched. The manufacturing process limits ex vivo expansion, which is designed to reduce T cell exhaustion and maintain a T_{CM} phenotype. These CAR-T modified T_{CM} cells are shown to be more potent and persistent than earlier generations of IL-13 based CAR-Ts in mouse xenograft models of GBM.

We currently have an open IND to assess the feasibility and safety of using T_{CM} enriched IL13Ra2-specific CAR engineered T cells for clinical study participants with recurrent/refractory malignant glioma. This IND was submitted on October 27, 2014, with COH as the sponsor. We have currently enrolled and treated the 17 patients as of December 31, 2016. Our collaborators at the COH presented the preliminary data for this first cohort of patients. The investigators reported that the CAR-T cells were well tolerated (meaning that no dose limiting toxicities were seen to date). The investigators also reported on a patient that they determined had a complete response to treatment (based on the imaging and clinical features set forth by the Response Assessment in Neuro-Oncology Criteria (RANO)). This clinical response was sustained for 7.5 months after the initiation of CAR T-cell therapy, unfortunately, this patient's disease eventually recurred at four new locations that were distinct and non- adjacent to original tumors. The next step is to continue to enroll patients in this Phase 1 study to determine the maximum tolerated dose, and a recommended Phase 2 dose. Additionally, in this Phase 1 study, we are exploring optimum modes of delivery for CAR-T cells for the treatment of GBM.

The clinical trial endpoints, which were first received on August 1, 2014 and are current as of July 7, 2016 are as follows:

Primary Objectives:

(1) To assess the feasibility and safety of intratumoral (stratum 1) or intracavitary (stratum 2) or intraventricular (stratum 3) or dual delivery (stratum 4) cellular immunotherapy utilizing ex vivo expanded autologous central memory T cells (TCM)-enriched T cells that are genetically modified using a self-inactivating (SIN) lentiviral vector to express a interleukin 13 receptor alpha 2 (IL13Rα2)-specific, hinge-optimized, 41BB-costimulatory chimeric antigen receptor (CAR), as well as a truncated human cluster of differentiation 19 (CD19) (IL13 [EQ]BBzeta/truncated CD19[t]+ TCM) (IL13Rα2-specific, hinge-optimized, 41BB-costimulatory CAR/truncated CD19-expressing T lymphocytes), for research participants with recurrent/refractory malignant glioma.

(2) To determine maximum tolerated dose schedule (MTD) and a recommended phase II dosing plan (RP2D) for each strata based on dose limiting toxicities (DLTs) and the full toxicity profile.

Secondary Objectives:

(1) To assess the timing and extent of brain inflammation, as assessed by magnetic resonance imaging (MRI)/magnetic resonance spectroscopy (MRS), following T cell administration.

(2) To describe cytokine levels (cyst fluid, peripheral blood) over the study period.

(3) In research participants who receive the full schedule of three T cell doses: estimate the six month progression free survival rate, disease response rates, and median overall survival.

(4) In research participants who receive intraventricular infusions after progressing following intracranial infusions (stratum 1 or 2): estimate disease response rate and overall survival if the sample size is large enough.

(5) In research participants who receive at least one dose of T cells estimate the mean change from baseline in quality of life using the European Organization for Research and Treatment of Cancer (EORTC) quality of life questionnaire (QLQ)-C30 and EORTC QLQ brain neoplasm (BN)-20 survey scale, domain and item scores during and post treatment.

(6) For study participants who undergo a second resection or autopsy: To evaluate T cell persistence in the tumor micro-environment and the location of the T cells with respect to the injection site, and to evaluate IL13Ra2 antigen expression levels pre and post T cell therapy.

CD 123 CAR T cell Program for AML

Overview

CD123 is a subunit of the heterodimeric interleukin-3-receptor (IL-3R) which is widely expressed on human hematologic malignancies including acute myeloid leukemia (AML). In addition, CD123 can be found on the surface of B cell acute lymphoblastic leukemia (B-ALL), hairy cell leukemia, blastic plasmacytoid dendritic cell neoplasm (BPDCN), chronic myeloid leukemia (CML) and Hodgkin's lymphoma.

Of these malignancies, we are currently investigating CD123 as a target for adoptive cellular immunotherapy in AML since high CD123 expression is associated with enhanced AML blast proliferation, increased resistance of blasts to apoptosis, and poor clinical prognosis.

Acute Myeloid Leukemia is a cancer of the myeloid line of blood cells characterized by rapid growth of abnormal white blood cells that accumulate in the bone marrow. AML is the most common form of acute leukemia. Although AML is a relatively rare disease there are approximately 20,000 new cases per year in the US and 10,000 deaths per year, accounting for approximately 1.8% of cancer deaths in the US (The Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute). AML standard of care involves chemotherapy to induce remission followed by additional chemotherapy or hematopoietic stem cell transplant. Allogeneic stem cell transplantation is the preferred treatment route for AML following a second remission. It can lead to a 5-year disease free survival in 26% of patients. Unfortunately, however, currently, only about half of relapsed patients are able to achieve a second remission with traditional chemotherapy agents. Patients who do not achieve a second remission are much less likely to benefit from transplantation and face a dismal outcome.

The use of CAR-T immunotherapy in relapsed AML patients may offer the potential to achieve a complete or longer lasting remission. We have developed CD123 targeted CAR-T cells designed both to be activated to proliferate and to kill CD123 expressing tumor cells (Mardiros A, Santos C Dos. T cells expressing CD123-specific chimeric antigen receptors exhibit specific cytolytic effector functions and antitumor effects against human acute myeloid leukemia. Blood. 2013;122(18):3138-3148). The therapy is designed to recognize and eliminate leukemic cells, leading to remission in patients with relapsed or refractory AML, and could serve as a bridge to potentially curative allogenic stem cell transplant. The manufacturing process genetically modifies T cells isolated from peripheral blood mononuclear cells in order to express a CD123-specific, hinge–optimized, CD28 co-stimulatory domain expressing CAR as well as a truncated EGFR (EGFRt) selection/tracking marker (Wang Blood). EGFRt also has the potential to act as a safety switch to allow depletion of CAR-T cells in the patients if needed.

We have an open IND for a Phase 1 clinical study to assess the anti-tumor activity and safety of administering CAR T cells and we have treated three patients as of December 31, 2016. This IND was submitted on April 20, 2015, with COH as the sponsor. We will assess the T cell persistence and determine the potential immunogenicity of the cells to determine a recommended Phase 2 dose.

The clinical trial endpoints, which were first received on June 6, 2014 and are current as of July 7, 2016 are as follows:

Primary Objectives:

(1) To assess the anti-tumor activity and safety of cellular immunotherapy utilizing ex vivo expanded T cells that are genetically modified using a self-inactivating (SIN) lentiviral vector to express a co-stimulatory cluster of differentiation (CD)123-specific chimeric antigen receptor (CAR) as well as a truncated human epidermal growth factor receptor (EGFR) (CD123R[EQ]28zeta[Z]/truncated human EGFR [EGFRt]+ T cells) (anti CD123-CAR/CD28-costimulatory, lentiviral vector-transduced autologous T lymphocytes) following lymphodepletion for patients with relapsed or refractory AML.

(2) To determine the recommended Phase II dose (RP2D).

Secondary Objectives:

(1) To assess activity in the form of T cell persistence and immunogenicity of CD123R(EQ)28Z/EGFRt+ T cells up to 28 days post T cell infusion.

Tertiary Objectives:

(1) To assess impact on hematopoiesis, change from baseline in numbers of CD123+ blood cells, CD123 expression on leukemia cells and hematopoietic cells, and the clinical efficacy of EGFRt mediated CAR T cell ablation.

COSTS AND TIME TO COMPLETE PRODUCT DEVELOPMENT

The information below provides estimates regarding the costs associated with the completion of the current development phase and our current estimated range of the time that will be necessary to complete that development phase for our product candidates. For a description of the risk factors that could significantly affect our ability to meet these cost and time estimates, see Item 1A of this Form 10-K.

Product	Target Indication	Development Stage	Estimated time to complete phase	Estimated cost to complete phase
IL13Ra2-CAR- T	Glioblastoma	Phase 1/2	First half 2018	$2.5-5 Million
CD123 CAR-T	AML	Phase 1/2	Second half 2018	$2.5-5 Million

Completion dates and costs in the above table are estimates due to the uncertainties associated with preclinical research activities, clinical trials and the related requirements of development. In the cases where the requirements for preclinical development, clinical trials and development programs have not been fully defined, or are dependent on the success of other research findings or trials, we cannot estimate trial completion or cost with any certainty. The actual spending on each trial or the decision to advance programs to the next stage during the year is also dependent on funding.

INTELLECTUAL PROPERTY AND PATENTS

General

Our goal is to obtain, maintain and enforce patent protection for our products, formulations, processes, methods and other proprietary technologies, preserve our trade secrets, and operate without infringing on the proprietary rights of other parties, both in the US and in other countries. Our policy is to actively seek to obtain, where appropriate, the broad intellectual property protection for our product candidates, proprietary information and proprietary technology through a combination of contractual arrangements and patents, both in the US and elsewhere in the world.

We also depend upon the skills, knowledge and experience of our scientific and technical personnel, as well as that of our advisors, consultants and other contractors ("know-how"). To help protect our proprietary know-how which is not patentable, and for inventions for which patents may be difficult to enforce, we rely on trade secret protection and confidentiality agreements to protect our interests. To this end, we require all employees, consultants, advisors and other contractors to enter into confidentiality agreements which prohibit the disclosure of confidential information and, where applicable, require disclosure and assignment to us of the ideas, developments, discoveries and inventions important to our business.

Patents and other proprietary rights are crucial to the development of our business. We will be able to protect our proprietary technologies from unauthorized use by third parties only to the extent that our proprietary rights are covered by valid and enforceable patents, supported by regulatory exclusivity or are effectively maintained as trade secrets. We have a few patents and patent applications related to our compounds and other technology, but we cannot guarantee the scope of protection of the issued patents, or that such patents will survive a validity or enforceability challenge, or that any of the pending patent applications will issue as patents.

Generally, patent applications in the US are maintained in secrecy for a period of 18 months or more. The patent positions of biotechnology and pharmaceutical companies are highly uncertain and involve complex legal and factual questions. Therefore, we cannot predict the breadth of claims allowed in biotechnology and pharmaceutical patents, or their enforceability. To date, there has been no consistent policy regarding the breadth of claims allowed in biotechnology patents. Third parties or competitors may challenge or circumvent our patents or patent applications, if issued. If our competitors prepare and file patent applications in the US that claim technology also claimed by us, we may have to participate in interference proceedings declared by the US Patent and Trademark Office (PTO) to determine priority of invention, which could result in substantial cost, even if the eventual outcome is favorable to us. Because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that before we commercialize any of our products, any related patent may expire or remain in existence for only a short period following commercialization, thus reducing any advantage of the patent. However, the life of a patent covering a product that has been subject to regulatory approval may have the ability be extended through the patent restoration program, although any such extension could still be minimal.

If a patent is issued to a third party containing one or more preclusive or conflicting claims, and those claims are ultimately determined to be valid and enforceable, we may be required to obtain a license under such patent or to develop or obtain alternative technology. In the event of litigation involving a third party claim, an adverse outcome in the litigation could subject us to significant liabilities to such third party, require us to seek a license for the disputed rights from such third party, and/or require us to cease use of the technology. Further, our breach of an existing license or failure to obtain a license to technology required to commercialize our products may seriously harm our business. We also may need to commence litigation to enforce any patents issued to us or to determine the scope and validity of third-party proprietary rights. Litigation would involve substantial costs.

In March 2015 we licensed intellectual property related to CAR-T technology from City of Hope. The intellectual property includes patent applications in a number of countries, including the US and the EU, as well as pending patent applications in Japan and the developing world. These pending patent applications include compositions and methods of creating CAR-T cells targeting IL13Ra and CD123. The applications include various claims regarding additional specific features to optimize targeting, binding specificity, cell stimulation and persistence. Additional patents and pending claims we have rights to include the use of optimized hinge region for many targeted constructions such as CD19 along with compositions and methods to isolate and transfect T memory cells to improve cellular persistence. Any patents maturing from these pending applications will expire no sooner than October 2033.

In total, we have in-licensed four patents in the US and four patents outside the US. We are currently evaluating the terms of license agreements that would grant us 12 additional US patents and 36 patents outside the US.

Our sponsored research agreement gives us the right to first negotiation under specified maximum terms regarding any future inventions arising from Dr. Forman's laboratory.

Other Intellectual Property Rights

We depend upon trademarks, trade secrets, knowhow and continuing technological advances to develop and maintain our competitive position. To maintain the confidentiality of trade secrets and proprietary information, we require our employees, scientific advisors, consultants and collaborators, upon commencement of a relationship with us, to execute confidentiality agreements and, in the case of parties other than our research and development collaborators, to agree to assign their inventions to us. These agreements are designed to protect our proprietary information and to grant us ownership of technologies that are developed in connection with their relationship with us. These agreements may not, however, provide protection for our trade secrets in the event of unauthorized disclosure of such information.

In addition to patent protection, we may utilize orphan drug regulations or other provisions of the Food, Drug and Cosmetic Act of 1938, as amended, or FDCA, to provide market exclusivity for certain of our product candidates. Orphan drug regulations provide incentives to pharmaceutical and biotechnology companies to develop and manufacture drugs for the treatment of rare diseases, currently defined as diseases that exist in fewer than 200,000 individuals in the US, or diseases that affect more than 200,000 individuals in the US but for which the sponsor does not realistically anticipate will generate a net profit. Under these provisions, a manufacturer of a designated orphan drug can seek tax benefits, and the holder of the first approval of a designated orphan product from the Food and Drug Administration (FDA), will be granted a seven year period of marketing exclusivity for such FDA approved orphan product.

LICENSING AGREEMENTS AND COLLABORATIONS

City of Hope Agreements

In March 2015, we entered into an Exclusive License Agreement with COH (the "Original Agreement") to acquire intellectual property rights pertaining to CAR-T technology. In April 2015, pursuant to the agreement, we paid COH an upfront fee of $2.0 million and granted COH 1,000,000 shares of Class A Common Stock, representing 10% ownership of Mustang, as of such date. In March 2017, COH was granted 293,588 additional shares of the Company's Common Stock, valued at $5.73 per share or approximately $1.7 million as of October 2016, the effective date of the grant. The additional grant was made pursuant to the terms of the agreement, which maintained COH ownership at 10% until the Company raised net proceeds of $10.0 million from third party investors. The agreement was amended in February 2017, to allow for the grant of stock to be made in the Company's common shares rather than Class A common shares as originally prescribed.

In addition, we entered into a sponsored research agreement with COH in which we will fund continued research in the amount of $2.0 million per year, payable in four equal installments, over the next five years.

On February 17, 2017, we and COH amended and restated the Original Agreement in connection with the covered patents by entering into three separate amended and restated exclusive license agreements, one relating to CD123, one relating to IL-13 and one relating to the spacer technology, that amended the Original Agreement in certain other respects, and collectively replace the Original Agreement in its entirety. The total potential consideration payable to COH by us, in equity or cash, did not, in the aggregate, change materially from the Original Agreement.

A&R CD123 License

On February 17, 2017, we entered into an Amended and Restated Exclusive License Agreement with COH to acquire intellectual property rights pertaining to CD123 patent rights (the "A&R CD123 License"). Pursuant to the A&R CD123 License, we and COH acknowledge that an upfront fee has already been paid under the Original Agreement. In addition, an annual maintenance fee will continue to apply. COH is eligible to receive milestone payments totaling approximately $14.5 million upon and subject to the achievement of certain milestones. Royalty payments in the mid-single digits are due on net sales of licensed products. We are obligated to pay COH a percentage of certain revenues received in connection with a sublicense in the mid-teens to mid-thirties, depending on the timing of the sublicense in the development of any product. In addition, equity grants made under the Original Agreement were acknowledged, and the anti-dilution provisions of the Original Agreement were carried forward.

A&R IL-13 License

On February 17, 2017, we entered into an Amended and Restated Exclusive License Agreement with COH to acquire intellectual property rights pertaining to IL-13 patent rights (the "A&R IL-13 License"). Pursuant to the A&R IL-13 License, we and COH acknowledge that an upfront fee has already been paid under the Original Agreement. In addition, an annual maintenance fee will continue to apply. COH is eligible to receive milestone payments totaling approximately $14.5 million upon and subject to the achievement of certain milestones. Royalty payments in the mid-single digits are due on net sales of licensed products. We are obligated to pay COH a percentage of certain revenues received in connection with a sublicense in the mid-teens to mid-thirties, depending on the timing of the sublicense in the development of any product. In addition, equity grants made under the Original Agreement were acknowledged, and the anti-dilution provisions of the Original Agreement were carried forward.

A&R Spacer License

On February 17, 2017, we entered into an Amended and Restated Exclusive License Agreement with COH to acquire intellectual property rights pertaining to Spacer patent rights (the "A&R Spacer License"). Pursuant to the A&R Spacer License, we and COH acknowledged that an upfront fee has already been paid under the Original Agreement. In addition, an annual maintenance fee will continue to apply. No royalties are due if the Spacer technology is used in conjunction with a CD123 CAR or an IL-13 CAR, and royalty payments in the low single digits are due on net sales of licensed products if the Spacer technology is used in conjunction with other intellectual property. We are obligated to pay COH a percentage of certain revenues received in connection with a sublicense in the mid-thirties. In addition, equity grants made under the Original Agreement were acknowledged, and the anti-dilution provisions of the Original Agreement were carried forward.

IV/ICV Agreement

On February 17, 2017, we entered into an exclusive license agreement (the "IV/ICV Agreement") with COH to acquire intellectual property rights in patent applications related to the intraventricular and intracerebroventricular methods of delivering T cells that express CARs. Pursuant to the IV/ICV Agreement, we will pay COH an upfront fee of $125,000 within 30 days of the Effective Date, in addition to an annual maintenance fee. COH is eligible to receive milestone payments totaling approximately $125,000, upon and subject to the achievement of certain milestones. Royalty payments in the low single digits are due on net sales of licensed products and revenue from sublicenses.

UCLA Agreement

On March 17, 2017, we entered into an exclusive license agreement (the "UCLA Agreement") with the Regents of the University of California ("UCLA") to acquire intellectual property rights in patent applications related to the engineered anti-prostate stem cell antigen antibodies for cancer targeting and detection. Pursuant to the Agreement, we will pay UCLA an upfront fee of $200,000 within 30 days of the March 17, 2017, in addition to an annual maintenance fee. UCLA is eligible to receive milestone payments totaling approximately $14.3 million, upon and subject to the achievement of certain milestones. Royalty payments in the mid-single digits are due on net sales of licensed products, and we are obligated to pay UCLA a percentage of certain revenues received in connection with a sublicense in the mid-single digits to mid-twenties, depending on the timing of the sublicense in the development of such product.

The term of the Agreement expires after the expiration of the last to expire of any of the patent rights under the Agreement. Either we or UCLA may terminate the Agreement upon notice to the other upon breach without remedy or upon insolvency. In addition, we may terminate the Agreement at will without cause after adequate notice.

COMPETITION

Competition in the pharmaceutical and biotechnology industries is intense. Our competitors include pharmaceutical companies and biotechnology companies, as well as universities and public and private research institutions. In addition, companies that are active in different but related fields represent substantial competition for us. Many of our competitors have significantly greater capital resources, larger research and development staffs and facilities and greater experience in drug development, regulation, manufacturing and marketing than we do. These organizations also compete with us to recruit qualified personnel, attract partners for joint ventures or other collaborations, and license technologies that are competitive with ours. To compete successfully in this industry we must identify novel and unique drugs or methods of treatment and then complete the development of those drugs as treatments in advance of our competitors.

The drugs that we are attempting to develop will have to compete with existing therapies. In addition, a large number of companies are pursuing the development of pharmaceuticals that target the same conditions that we are targeting. Other companies have products or product candidates in various stages of pre-clinical or clinical development, or with marketing approvals, to treat conditions for which we are also seeking to discover and develop product candidates. Some of these potential competing drugs are further advanced in development than our product candidates and may be commercialized earlier.

The field of CAR-T therapy is extremely active. Companies and partnerships currently engaged in clinical trials with CAR-T modalities include Juno, Novartis/University of Pennsylvania, Bluebird Bio, Celgene/Baylor College of Medicine, Pfizer/Cellectis, Amgen/Kite Pharma, Bellicum, MD Anderson/Ziopharm and Intrexon.

EMPLOYEES

As December 31, 2016, we have no fulltime employees and three part-time employees. We anticipate that each part-time employee will devote between 5 to 15 hours per week to Mustang. Employees of Fortress also make valuable financial, legal, scientific and other strategic contributions to Mustang on a regular basis.

SUPPLY AND MANUFACTURING

As an early stage development company, we rely on COH to manufacture all materials currently used in the clinical development programs we are sponsoring at COH. Pursuant to the March 2015 Licensing Agreement with COH, we have the right to make and have made the products, and we are currently negotiating Investigator-Initiated Clinical Research Support Agreements with COH which specify the manufacturing costs and numbers of patients which will be supplied under filed protocols. COH has extensive experience manufacturing clinical materials for development studies, but we are currently dependent on both their capacity limitations and continued operating success.

We have limited experience in manufacturing products for clinical or commercial purposes. We currently do not have any manufacturing capabilities. We have established, or intend to establish, contract manufacturing relationships for the preliminary supplies of our product candidates, in each case with a single manufacturer. As with any supply program, obtaining raw materials of the correct quality cannot be guaranteed, and we cannot ensure that we will be successful in this endeavor.

At the time of commercial sale, to the extent possible and commercially practicable, we would seek to engage a back-up supplier for each of our product candidates. Until such time, we expect that we will rely on a single contract manufacturer to produce each of our product candidates under current Good Manufacturing Practice ("cGMP") regulations. Our third-party manufacturers have a limited number of facilities in which our product candidates can be produced and will have limited experience in manufacturing our product candidates in quantities sufficient for commercialization. Our third-party manufacturers will have other clients and may have other priorities that could affect their ability to perform the work satisfactorily and/or on a timely basis. Both of these occurrences would be beyond our control.

We expect to similarly rely on contract manufacturing relationships for any products that we may in-license or acquire in the future. However, there can be no assurance that we will be able to successfully contract with such manufacturers on terms acceptable to us, or at all.

Contract manufacturers are subject to ongoing periodic and unannounced inspections by the FDA, the US Drug Enforcement Administration (DEA) and corresponding state agencies to ensure strict compliance with cGMP and other state and federal regulations. Our contractors, if any, in Europe face similar challenges from the numerous EU and member state regulatory agencies and authorized bodies. We do not have control over third-party manufacturers' compliance with these regulations and standards, other than through contractual obligations. If they are deemed out of compliance with cGMPs, product recalls could result, inventory could be destroyed, production could be stopped and supplies could be delayed or otherwise disrupted.

If we need to change manufacturers after commercialization, the FDA and corresponding foreign regulatory agencies must approve these new manufacturers in advance, which will involve testing and additional inspections to ensure compliance with FDA regulations and standards and may require significant lead times and delay. Furthermore, switching manufacturers may be difficult because the number of potential manufacturers is limited. It may be difficult or impossible for us to find a replacement manufacturer quickly or on terms acceptable to us, or at all.

GOVERNMENT AND INDUSTRY REGULATIONS

Numerous governmental authorities, principally the FDA and corresponding state and foreign regulatory agencies, impose substantial regulations upon the clinical development, manufacture and marketing of our product candidates, as well as our ongoing research and development activities. None of our product candidates has been approved for sale in any market in which we have marketing rights. Before marketing in the US, any drug that we develop must undergo rigorous pre-clinical testing and clinical trials and an extensive regulatory approval process implemented by the FDA under the FDCA. The FDA regulates, among other things, the pre-clinical and clinical testing, safety, efficacy, approval, manufacturing, record keeping, adverse event reporting, packaging, labeling, storage, advertising, promotion, export, sale and distribution of biopharmaceutical products.

The regulatory review and approval process is lengthy, expensive and uncertain. We are required to submit extensive pre-clinical and clinical data and supporting information to the FDA for each indication or use to establish a product candidate's safety and efficacy before we can secure FDA approval to market or sell a product in the US. The approval process takes many years, requires the expenditure of substantial resources and may involve ongoing requirements for post-marketing studies or surveillance. Before commencing clinical trials in humans, we must submit an IND to the FDA containing, among other things, pre-clinical data, chemistry, manufacturing and control information, and an investigative plan. Our submission of an IND may not result in FDA authorization to commence a clinical trial.

The FDA may permit expedited development, evaluation, and marketing of new therapies intended to treat persons with serious or life-threatening conditions for which there is an unmet medical need under its fast track drug development programs. A sponsor can apply for fast track designation at the time of submission of an IND, or at any time prior to receiving marketing approval of the new drug application (NDA). To receive fast track designation, an applicant must demonstrate:

- that the drug is intended to treat a serious or life-threatening condition;
- that the drug is intended to treat a serious aspect of the condition; and
- that the drug has the potential to address unmet medical needs, and this potential is being evaluated in the planned drug development program.

The FDA must respond to a request for fast track designation within 60 calendar days of receipt of the request. Over the course of drug development, a product in a fast track development program must continue to meet the criteria for fast track designation. Sponsors of products in fast track drug development programs must be in regular contact with the reviewing division of the FDA to ensure that the evidence necessary to support marketing approval will be developed and presented in a format conducive to an efficient review. Sponsors of products in fast track drug development programs ordinarily are eligible for priority review of a completed application in six months or less and also may be permitted to submit portions of an NDA to the FDA for review before the complete application is submitted.

Sponsors of drugs designated as fast track also may seek approval under the FDA's accelerated approval regulations. Under this authority, the FDA may grant marketing approval for a new drug product on the basis of adequate and well-controlled clinical trials establishing that the drug product has an effect on a surrogate endpoint that is reasonably likely, based on epidemiologic, therapeutic, pathophysiologic, or other evidence, to predict clinical benefit or on the basis of an effect on a clinical endpoint other than survival or irreversible morbidity. Approval will be subject to the requirement that the applicant study the drug further to verify and describe its clinical benefit where there is uncertainty as to the relation of the surrogate endpoint to clinical benefit or uncertainty as to the relation of the observed clinical benefit to ultimate outcome. Post-marketing studies are usually underway at the time an applicant files the NDA. When required to be conducted, such post-marketing studies must also be adequate and well-controlled. The applicant must carry out any such post-marketing studies with due diligence. Many companies who have been granted the right to utilize an accelerated approval approach have failed to obtain approval. Moreover, negative or inconclusive results from the clinical trials we hope to conduct or adverse medical events could cause us to have to repeat or terminate the clinical trials. Accordingly, we may not be able to complete the clinical trials within an acceptable time frame, if at all, and, therefore, could not submit the NDA to the FDA or foreign regulatory authorities for marketing approval.

Clinical testing must meet requirements for institutional review board oversight, informed consent and good clinical practices, and must be conducted pursuant to an IND, unless exempted.

For purposes of NDA approval, clinical trials are typically conducted in the following sequential phases:

- *Phase 1*: The drug is administered to a small group of humans, either healthy volunteers or patients, to test for safety, dosage tolerance, absorption, metabolism, excretion and clinical pharmacology.
- *Phase 2*: Studies are conducted on a larger number of patients to assess the efficacy of the product, to ascertain dose tolerance and the optimal dose range, and to gather additional data relating to safety and potential adverse events.
- *Phase 3*: Studies establish safety and efficacy in an expanded patient population.
- *Phase 4*: The FDA may require Phase 4 post-marketing studies to find out more about the drug's long-term risks, benefits, and optimal use, or to test the drug in different populations.

The length of time necessary to complete clinical trials varies significantly and may be difficult to predict. Clinical results are frequently susceptible to varying interpretations that may delay, limit or prevent regulatory approvals. Additional factors that can cause delay or termination of our clinical trials, or that may increase the costs of these trials, include:

- slow patient enrollment due to the nature of the clinical trial plan, the proximity of patients to clinical sites, the eligibility criteria for participation in the study or other factors;
- inadequately trained or insufficient personnel at the study site to assist in overseeing and monitoring clinical trials or delays in approvals from a study site's review board;

- longer treatment time required to demonstrate efficacy or determine the appropriate product dose;
- insufficient supply of the product candidates;
- adverse medical events or side effects in treated patients; and
- ineffectiveness of the product candidates.

In addition, the FDA, equivalent foreign regulatory authority, or a data safety monitoring committee for a trial may place a clinical trial on hold or terminate it if it concludes that subjects are being exposed to an unacceptable health risk, or for futility. Any drug is likely to produce some toxicity or undesirable side effects in animals and in humans when administered at sufficiently high doses and/or for a sufficiently long period of time. Unacceptable toxicity or side effects may occur at any dose level at any time in the course of studies in animals designed to identify unacceptable effects of a product candidate, known as toxicological studies, or clinical trials of product candidates. The appearance of any unacceptable toxicity or side effect could cause us or regulatory authorities to interrupt, limit, delay or abort the development of any of our product candidates and could ultimately prevent approval by the FDA or foreign regulatory authorities for any or all targeted indications.

Sponsors of drugs may apply for a special protocol assessment (SPA) from the FDA. The SPA process is a procedure by which the FDA provides official evaluation and written guidance on the design and size of proposed protocols that are intended to form the basis for a NDA. However, final marketing approval depends on the results of efficacy, the adverse event profile and an evaluation of the benefit/risk of treatment demonstrated in the Phase 3 trial. The SPA may only be changed through a written agreement between the sponsor and the FDA, or if the FDA becomes aware of a substantial scientific issue essential to product safety or efficacy.

Before receiving FDA approval to market a product, we must demonstrate that the product is safe and effective for its intended use by submitting to the FDA a NDA containing the pre-clinical and clinical data that have been accumulated, together with chemistry and manufacturing and controls specifications and information, and proposed labeling, among other things. The FDA may refuse to accept a NDA for filing if certain content criteria are not met and, even after accepting an NDA, the FDA may often require additional information, including clinical data, before approval of marketing a product.

It is also becoming more common for the FDA to request a Risk Evaluation and Mitigation Strategy, or REMS, as part of a NDA. The REMS plan contains post-market obligations of the sponsor to train prescribing physicians, monitor off-label drug use, and conduct sufficient Phase 4 follow-up studies and registries to ensure the continued safe use of the drug.

As part of the approval process, the FDA must inspect and approve each manufacturing facility. Among the conditions of approval is the requirement that a manufacturer's quality control and manufacturing procedures conform to cGMP. Manufacturers must expend significant time, money and effort to ensure continued compliance, and the FDA conducts periodic inspections to certify compliance. It may be difficult for our manufacturers or us to comply with the applicable cGMP, as interpreted by the FDA, and other FDA regulatory requirements. If we, or our contract manufacturers, fail to comply, then the FDA may not allow us to market products that have been affected by the failure.

If the FDA grants approval, the approval will be limited to those conditions and patient populations for which the product is safe and effective, as demonstrated through clinical studies. Further, a product may be marketed only in those dosage forms and for those indications approved in the NDA. Certain changes to an approved NDA, including, with certain exceptions, any significant changes to labeling, require approval of a supplemental application before the drug may be marketed as changed. Any products that we manufacture or distribute pursuant to FDA approvals are subject to continuing monitoring and regulation by the FDA, including compliance with cGMP and the reporting of adverse experiences with the drugs. The nature of marketing claims that the FDA will permit us to make in the labeling and advertising of our products will generally be limited to those specified in FDA approved labeling, and the advertising of our products will be subject to comprehensive monitoring and regulation by the FDA. Drugs whose review was accelerated may carry additional restrictions on marketing activities, including the requirement that all promotional materials are pre-submitted to the FDA. Claims exceeding those contained in approved labeling will constitute a violation of the FDCA. Violations of the FDCA or regulatory requirements at any time during the product development process, approval process, or marketing and sale following approval may result in agency enforcement actions, including withdrawal of approval, recall, seizure of products, warning letters, injunctions, fines and/or civil or criminal penalties. Any agency enforcement action could have a material adverse effect on our business.

Failure to comply with applicable federal, state and foreign laws and regulations would likely have a material adverse effect on our business. In addition, federal, state and foreign laws and regulations regarding the manufacture and sale of new drugs are subject to future changes.

Other Healthcare Laws and Compliance Requirements

In the US, our activities are potentially subject to regulation by various federal, state and local authorities in addition to the FDA, including the Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration), other divisions of the United States Department of Health and Human Services (e.g., the Office of Inspector General), the United States Department of Justice and individual United States Attorney offices within the Department of Justice, and state and local governments.

Pharmaceutical Coverage, Pricing and Reimbursement

In the US and markets in other countries, sales of any products for which we receive regulatory approval for commercial sale will depend in part on the availability of reimbursement from third-party payors, including government health administrative authorities, managed care providers, private health insurers and other organizations. Third-party payors are increasingly examining the medical necessity and cost-effectiveness of medical products and services, in addition to their safety and efficacy, and, accordingly, significant uncertainty exists as to the reimbursement status of newly approved therapeutics. Adequate third party reimbursement may not be available for our products to enable us realize an appropriate return on our investment in research and product development. We are unable to predict the future course of federal or state health care legislation and regulations, including regulations that will be issued to implement provisions of the health care reform legislation enacted in 2010, known as the Affordable Care Act. The Affordable Care Act and further changes in the law or regulatory framework could have a material adverse effect on our business.

International Regulation

In addition to regulations in the US, there are a variety of foreign regulations governing clinical trials and commercial sales and distribution of any product candidates. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval.

Item 1A. Risk Factors

The following information sets forth risk factors that could cause our actual results to differ materially from those contained in forward-looking statements we have made in this Form 10-K *and those we may make from time to time. You should carefully consider the risks described below, in addition to the other information contained in this* Form 10-K*, before making an investment decision. Our business, financial condition or results of operations could be harmed by any of these risks. The risks and uncertainties described below are not the only ones we face. Additional risks not presently known to us or other factors not perceived by us to present significant risks to our business at this time also may impair our business operations.*

Risks Related to Our Business and Industry

We currently have no drug products for sale. We are heavily dependent on the success of our product candidates, and we cannot give any assurances that any of our product candidates will receive regulatory approval or be successfully commercialized.

To date, we have invested a significant portion of our efforts and financial resources in the acquisition and development of our product candidates. We have not demonstrated our ability to perform the functions necessary for the successful acquisition, development or commercialization of the technologies we are seeking to develop. As an early stage company, we have limited experience and have not yet demonstrated an ability to successfully overcome many of the risks and uncertainties frequently encountered by companies in new and rapidly evolving fields, particularly in the biopharmaceutical area. Our future success is substantially dependent on our ability to successfully develop, obtain regulatory approval for, and then successfully commercialize such product candidates. Our product candidates are currently in preclinical development or in clinical trials. Our business depends entirely on the successful development and commercialization of our product candidates, which may never occur. We currently generate no revenues from sales of any drugs, and we may never be able to develop or commercialize a marketable drug.

The successful development, and any commercialization, of our technologies and any product candidates would require us to successfully perform a variety of functions, including:

- developing our technology platform;
- identifying, developing, manufacturing and commercializing product candidates;
- entering into successful licensing and other arrangements with product development partners;
- participating in regulatory approval processes;
- formulating and manufacturing products;
- obtaining sufficient quantities of our product candidates from our third-party manufacturers as required to meet clinical trial needs and commercial demand at launch and thereafter;
- establishing and maintaining agreements with wholesalers, distributors and group purchasing organizations on commercially reasonable terms;

- conducting sales and marketing activities including hiring, training, deploying and supporting our sales force and creating market demand for our product candidates through our own marketing and sales activities, and any other arrangements to promote our product candidates that we may later establish; and

- maintaining patent protection and regulatory exclusivity for our product candidates.

Our operations have been limited to organizing our company, acquiring, developing and securing our proprietary technology and identifying and obtaining preclinical data or clinical data for various product candidates. These operations provide a limited basis for you to assess our ability to continue to develop our technology, identify product candidates, develop and commercialize any product candidates we are able to identify and enter into successful collaborative arrangements with other companies, as well as for you to assess the advisability of investing in our securities. Each of these requirements will require substantial time, effort and financial resources.

Each of our product candidates will require additional preclinical or clinical development, management of preclinical, clinical and manufacturing activities, regulatory approval in multiple jurisdictions, obtaining manufacturing supply, building of a commercial organization, and significant marketing efforts before we generate any revenues from product sales. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates.

Pre-clinical development is highly speculative and has a high risk of failure.

Two of our current product candidates are in clinical trials, and we are evaluating the terms of license agreements for three additional pre-clinical assets. Our pre-clinical product candidates have never been used in humans. Pre-clinical development is highly speculative and carries a high risk of failure. We can provide no assurances that pre-clinical toxicology and/or pre-clinical activity of our product candidates will support moving any of these product candidates into clinical development. If we are unsuccessful in our pre-clinical development efforts for any of these product candidates and they fail to reach clinical development, it would have a material adverse effect on our business and financial condition.

Delays in clinical testing could result in increased costs to us and delay our ability to generate revenue.

Although we are planning for certain clinical trials relating to our product candidates, there can be no assurance that the FDA will accept our proposed trial designs. We may experience delays in our clinical trials and we do not know whether planned clinical trials will begin on time, need to be redesigned, enroll patients on time or be completed on schedule, if at all. Clinical trials can be delayed for a variety of reasons, including delays related to:

- obtaining regulatory approval to commence a trial;

- reaching agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

- obtaining institutional review board, or IRB, approval at each site;

- recruiting suitable patients to participate in a trial;

- clinical sites deviating from trial protocol or dropping out of a trial;

- having patients complete a trial or return for post-treatment follow-up;

- developing and validating companion diagnostics on a timely basis, if required;

- adding new clinical trial sites; or

- manufacturing sufficient quantities of product candidate for use in clinical trials.

Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we are investigating. Furthermore, we intend to rely on CROs and clinical trial sites to ensure the proper and timely conduct of our clinical trials and we intend to have agreements governing their committed activities, however, we will have limited influence over their actual performance.

We could encounter delays if a clinical trial is suspended or terminated by us, by the IRBs of the institutions in which such trials are being conducted, by the Data Safety Monitoring Board, or DSMB, for such trial or by the FDA or other regulatory authorities. Such authorities may impose such a suspension or termination due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

If we experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to generate product revenues from any of these product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs, slow down our product candidate 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, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

We may not receive regulatory approval for our product candidates, or their approval may be further delayed, which would have a material adverse effect on our business and financial condition.

Our product candidates and the activities associated with their development and commercialization, including their design, testing, manufacture, safety, efficacy, recordkeeping, labeling, storage, approval, advertising, promotion, sale and distribution, are subject to comprehensive regulation by the FDA and other regulatory agencies in the US and by the European Medicines Agency and similar regulatory authorities outside the US. Failure to obtain marketing approval for one or more of our product candidates or any future product candidate will prevent us from commercializing the product candidate. We have not received approval to market any of our product candidates from regulatory authorities in any jurisdiction. We have only limited experience in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party contract research organizations to assist us in this process. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. Securing marketing approval also requires the submission of information about the product manufacturing process to, and inspection of manufacturing facilities by, the regulatory authorities. One or more of our product candidates or any future product candidate may not be effective, may be only moderately effective or may prove to have undesirable or unintended side effects, toxicities or other characteristics that may preclude our obtaining marketing approval or prevent or limit commercial use. If any of our product candidates or any future product candidate receives marketing approval, the accompanying label may limit the approved use of our drug in this way, which could limit sales of the product.

The process of obtaining marketing approvals, both in the United States and abroad, is expensive, may take many years if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Changes in marketing approval policies during the development period, changes in or the enactment of additional statutes or regulations, or changes in regulatory review for each submitted product application may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and may refuse to accept any application or may decide that our data is insufficient for approval and require additional preclinical studies or clinical trials. In addition, varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

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

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

If any of our product candidates is approved and our contract manufacturer fails to produce the product in the volumes that we require on a timely basis, or fails to comply with stringent regulations applicable to pharmaceutical drug manufacturers, we may face delays in the commercialization of our product candidates or be unable to meet market demand, and may lose potential revenues.

The manufacture of pharmaceutical products requires significant expertise and capital investment, including the development of advanced manufacturing techniques and process controls, and the use of specialized processing equipment. We intend to enter into development and supply agreements with contract manufacturers for the completion of pre-commercialization manufacturing development activities and the manufacture of commercial supplies for each of our product candidates. Any termination or disruption of our relationships with our contract manufacturers may materially harm our business and financial condition, and frustrate any commercialization efforts for each respective product candidate.

All of our contract manufacturers must comply with strictly enforced federal, state and foreign regulations, including cGMP requirements enforced by the FDA through its facilities inspection program, and we have little control over their compliance with these regulations. Any failure to comply with applicable regulations may result in fines and civil penalties, suspension of production, suspension or delay in product approval, product seizure or recall, or withdrawal of product approval, and would limit the availability of our product. Any manufacturing defect or error discovered after products have been produced and distributed could result in even more significant consequences, including costly recall procedures, re-stocking costs, damage to our reputation and potential for product liability claims.

If the commercial manufacturers upon whom we rely to manufacture one or more of our product candidates, and any future product candidate we may in-license, fail to deliver the required commercial quantities on a timely basis at commercially reasonable prices, we would likely be unable to meet demand for our products and we would lose potential revenues.

Our approach to the discovery and development of our product candidates is unproven, and we do not know whether we will be able to develop any products of commercial value.

Our products candidates are emerging technologies and, consequently, it is conceivable that such technologies may ultimately fail to identify commercially viable drugs to treat human patients with cancer or other diseases.

If serious adverse or unacceptable side effects are identified during the development of one or more of our product candidates or any future product candidate, we may need to abandon or limit our development of some of our product candidates.

If one or more of our product candidates or any future product candidate are associated with undesirable side effects in clinical trials or have characteristics that are unexpected, we may need to abandon their development or limit development to more narrow uses or subpopulations in which the undesirable side effects or other characteristics are less prevalent, less severe or more acceptable from a risk-benefit perspective. In our industry, many compounds that initially showed promise in early stage testing have later been found to cause side effects that prevented further development of the compound. In the event that our clinical trials reveal a high and unacceptable severity and prevalence of side effects, our trials could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order us to cease further development or deny approval of one or more of our product candidates or any future product candidate for any or all targeted indications. The FDA could also issue a letter requesting additional data or information prior to making a final decision regarding whether or not to approve a product candidate. The number of requests for additional data or information issued by the FDA in recent years has increased and has resulted in substantial delays in the approval of several new drugs. Undesirable side effects caused by one or more of our product candidates or any future product candidate could also result in the inclusion of unfavorable information in our product labeling, denial of regulatory approval by the FDA or other regulatory authorities for any or all targeted indications, and in turn prevent us from commercializing and generating revenues from the sale of that product candidate. Drug-related side effects could affect patient recruitment or the ability of enrolled patients to complete the trial and could result in potential product liability claims.

Additionally, if one or more of our product candidates or any future product candidate receives marketing approval and we or others later identify undesirable side effects caused by this product, a number of potentially significant negative consequences could result, including:

- regulatory authorities may require the addition of unfavorable labeling statements, specific warnings or a contraindication;
- regulatory authorities may suspend or withdraw their approval of the product, or require it to be removed from the market;
- we may be required to change the way the product is administered, conduct additional clinical trials or change the labeling of the product; or
- our reputation may suffer.

Any of these events could prevent us from achieving or maintaining market acceptance of any of our product candidates or any future product candidate or could substantially increase our commercialization costs and expenses, which in turn could delay or prevent us from generating significant revenues from its sale.

Even if one or more of our product candidates receives regulatory approval, it and any other products we may market will remain subject to substantial regulatory scrutiny.

One or more of our product candidates that we may license or acquire will also be subject to ongoing requirements and review of the FDA and other regulatory authorities. These requirements include labeling, packaging, storage, advertising, promotion, record-keeping and submission of safety and other post-market information and reports, registration and listing requirements, cGMP requirements relating to manufacturing, quality control, quality assurance and corresponding maintenance of records and documents, requirements regarding the distribution of samples to physicians and recordkeeping of the drug.

The FDA may also impose requirements for costly post-marketing studies or clinical trials and surveillance to monitor the safety or efficacy of the product. The FDA closely regulates the post-approval marketing and promotion of drugs to ensure drugs are marketed only for the approved indications and in accordance with the provisions of the approved labeling. The FDA imposes stringent restrictions on manufacturers' communications regarding off-label use and if we do not market our products for only their approved indications, we may be subject to enforcement action for off-label marketing. Violations of the FDCA relating to the promotion of prescription drugs may lead to investigations alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

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

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

The FDA's policies may change, and additional government regulations may be enacted that could prevent, limit or delay regulatory approval of our product candidates. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained.

We will need to obtain FDA approval of any proposed product brand names, and any failure or delay associated with such approval may adversely impact our business.

A pharmaceutical product cannot be marketed in the US or other countries until we have completed a rigorous and extensive regulatory review processes, including approval of a brand name. Any brand names we intend to use for our product candidates will require approval from the FDA regardless of whether we have secured a formal trademark registration from the PTO. The FDA typically conducts a review of proposed product brand names, including an evaluation of potential for confusion with other product names. The FDA may also object to a product brand name if it believes the name inappropriately implies medical claims. If the FDA objects to any of our proposed product brand names, we may be required to adopt an alternative brand name for our product candidates. If we adopt an alternative brand name, we would lose the benefit of our existing trademark applications for such product candidate and may be required to expend significant additional resources in an effort to identify a suitable product brand name that would qualify under applicable trademark laws, not infringe the existing rights of third parties and be acceptable to the FDA. We may be unable to build a successful brand identity for a new trademark in a timely manner or at all, which would limit our ability to commercialize our product candidates.

Our current and future relationships with customers and third-party payors in the United States and elsewhere may be subject, directly or indirectly, to applicable anti-kickback, fraud and abuse, false claims, transparency, health information privacy and security and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm, administrative burdens and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors in the US and elsewhere will play a primary role in the recommendation and prescription of any product candidates for which we obtain marketing approval. Our future arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations, including, without limitation, the federal Anti-Kickback Statute and the federal False Claims Act, which may constrain the business or financial arrangements and relationships through which we sell, market and distribute any product candidates for which we obtain marketing approval. In addition, we may be subject to transparency laws and patient privacy regulation by the federal and state governments and by governments in foreign jurisdictions in which we conduct our business. The applicable federal, state and foreign healthcare laws and regulations that may affect our ability to operate include, but are not necessarily limited to:

- the federal Anti-Kickback Statute, which prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal and state healthcare programs, such as Medicare and Medicaid;

- federal civil and criminal false claims laws and civil monetary penalty laws, including the federal False Claims Act, which impose criminal and civil penalties, including civil whistleblower or *qui tam* actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, including the Medicare and Medicaid programs, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government; the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;

- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and their respective implementing regulations, which impose obligations on covered healthcare providers, health plans, and healthcare clearinghouses, as well as their business associates that create, receive, maintain or transmit individually identifiable health information for or on behalf of a covered entity, with respect to safeguarding the privacy, security and transmission of individually identifiable health information;

- the federal Open Payments program, which requires manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children's Health Insurance Program, with specific exceptions, to report annually to the Centers for Medicare & Medicaid Services, or CMS, information related to "payments or other transfers of value" made to physicians, which is defined to include doctors, dentists, optometrists, podiatrists and chiropractors, and teaching hospitals and applicable manufacturers and applicable group purchasing organizations to report annually to CMS ownership and investment interests held by the physicians and their immediate family members. Data collection began on August 1, 2013 with requirements for manufacturers to submit reports to CMS by March 31, 2014 and 90 days after the end each subsequent calendar year. Disclosure of such information was made by CMS on a publicly available website beginning in September 2014; and

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

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations may involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, including, without limitation, damages, fines, imprisonment, exclusion from participation in government healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations, which could have a material adverse effect on our business. If any of the physicians or other healthcare providers or entities with whom we expect to do business, including our collaborators, is found not to be in compliance with applicable laws, it may be subject to criminal, civil or administrative sanctions, including exclusions from participation in government healthcare programs, which could also materially affect our business.

Regulatory approval for any approved product is limited by the FDA to those specific indications and conditions for which clinical safety and efficacy have been demonstrated.

Any regulatory approval is limited to those specific diseases and indications for which a product is deemed to be safe and effective by the FDA. In addition to the FDA approval required for new formulations, any new indication for an approved product also requires FDA approval. If we are not able to obtain FDA approval for any desired future indications for our products, our ability to effectively market and sell our products may be reduced and our business may be adversely affected.

While physicians may choose to prescribe drugs for uses that are not described in the product's labeling and for uses that differ from those tested in clinical studies and approved by the regulatory authorities, our ability to promote the products is limited to those indications that are specifically approved by the FDA. These "off-label" uses are common across medical specialties and may constitute an appropriate treatment for some patients in varied circumstances. Regulatory authorities in the US generally do not regulate the behavior of physicians in their choice of treatments. Regulatory authorities do, however, restrict communications by pharmaceutical companies on the subject of off-label use. If our promotional activities fail to comply with these regulations or guidelines, we may be subject to warnings from, or enforcement action by, these authorities. In addition, our failure to follow FDA rules and guidelines relating to promotion and advertising may cause the FDA to suspend or withdraw an approved product from the market, require a recall or institute fines, or could result in disgorgement of money, operating restrictions, injunctions or criminal prosecution, any of which could harm our business.

We are subject to new legislation, regulatory proposals and managed care initiatives that may increase our costs of compliance and adversely affect our ability to market our products, obtain collaborators and raise capital.

In the US and some foreign jurisdictions, there have been a number of proposed and enacted legislative and regulatory changes regarding the healthcare system that could prevent or delay marketing approval of one or more of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any of our product candidates for which we obtain marketing approval.

Among policy makers and payors in the US and elsewhere, there is significant interest in promoting changes in healthcare systems with the stated goals of containing healthcare costs, improving quality and expanding access. In the US, the pharmaceutical industry has been a particular focus of these efforts and has been significantly affected by major legislative initiatives. In March 2010, President Obama signed into law the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, or collectively the PPACA, a sweeping law intended to broaden access to health insurance, reduce or constrain the growth of healthcare spending, enhance remedies against fraud and abuse, add new transparency requirements for the healthcare and health insurance industries, impose new taxes and fees on the health industry and impose additional health policy reforms.

Among the provisions of the PPACA of importance to our potential product candidates are:

- an annual, nondeductible fee on any entity that manufactures or imports specified branded prescription drugs and biologic agents, apportioned among these entities according to their market share in certain government healthcare programs;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13.0% of the average manufacturer price for branded and generic drugs, respectively;
- an increase in the statutory minimum rebates a manufacturer must pay under the Medicaid Drug Rebate Program to 23.1% and 13.0% of the average manufacturer price for branded and generic drugs, respectively;
- expansion of healthcare fraud and abuse laws, including the federal False Claims Act and the federal Anti-Kickback Statute, new government investigative powers and enhanced penalties for non-compliance;
- a new Medicare Part D coverage gap discount program, in which manufacturers must agree to offer 50% point-of-sale discounts off negotiated prices of applicable brand drugs to eligible beneficiaries during their coverage gap period, as a condition for a manufacturer's outpatient drugs to be covered under Medicare Part D;

- extension of a manufacturer's Medicaid rebate liability to covered drugs dispensed to individuals who are enrolled in Medicaid managed care organizations;
- expansion of eligibility criteria for Medicaid programs by, among other things, allowing states to offer Medicaid coverage to additional individuals and by adding new mandatory eligibility categories for certain individuals with income at or below 138% of the federal poverty level, thereby potentially increasing a manufacturer's Medicaid rebate liability;
- expansion of the entities eligible for discounts under the Public Health Service pharmaceutical pricing program;
- the new requirements under the federal Open Payments program and its implementing regulations;
- a new requirement to annually report drug samples that manufacturers and distributors provide to physicians; and
- a new Patient-Centered Outcomes Research Institute to oversee, identify priorities in, and conduct comparative clinical effectiveness research, along with funding for such research.

In addition, other legislative changes have been proposed and adopted since the PPACA was enacted. These changes include aggregate reductions to Medicare payments to providers of up to 2% per fiscal year that started in 2013. On March 1, 2013, the President signed an executive order implementing the 2% Medicare payment reductions, and on April 1, 2013, these reductions went into effect. In January 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, which, among other things, reduced Medicare payments to several providers and increased the statute of limitations period for the government to recover overpayments to providers from three to five years. These new laws may result in additional reductions in Medicare and other healthcare funding, which could have a material adverse effect on customers for our drugs, if approved, and, accordingly, our financial operations.

We expect that the PPACA, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we receive for any approved drug. Any reduction in reimbursement from Medicare or other government healthcare programs may result in a similar reduction in payments from private payors. The implementation of cost containment measures or other healthcare reforms may prevent us from being able to generate revenue, attain profitability or commercialize our drugs.

Legislative and regulatory proposals have been made to expand post-approval requirements and restrict sales and promotional activities for drugs. We cannot be sure whether additional legislative changes will be enacted, or whether the FDA regulations, guidance or interpretations will be changed, or what the impact of such changes on the marketing approvals of our product candidates, if any, may be. In addition, increased scrutiny by the US 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.

Public concern regarding the safety of drug products could delay or limit our ability to obtain regulatory approval, result in the inclusion of unfavorable information in our labeling, or require us to undertake other activities that may entail additional costs.

In light of widely publicized events concerning the safety risk of certain drug products, the FDA, members of the US Congress, the Government Accountability Office, medical professionals and the general public have raised concerns about potential drug safety issues. These events have resulted in the withdrawal of drug products, revisions to drug labeling that further limit use of the drug products and the establishment of risk management programs. The Food and Drug Administration Amendments Act of 2007, or FDAAA, grants significant expanded authority to the FDA, much of which is aimed at improving the safety of drug products before and after approval. In particular, the new law authorizes the FDA to, among other things, require post-approval studies and clinical trials, mandate changes to drug labeling to reflect new safety information and require risk evaluation and mitigation strategies for certain drugs, including certain currently approved drugs. It also significantly expands the federal government's clinical trial registry and results databank, which we expect will result in significantly increased government oversight of clinical trials. Under the FDAAA, companies that violate these and other provisions of the new law are subject to substantial civil monetary penalties, among other regulatory, civil and criminal penalties. The increased attention to drug safety issues may result in a more cautious approach by the FDA in its review of data from our clinical trials. Data from clinical trials may receive greater scrutiny, particularly with respect to safety, which may make the FDA or other regulatory authorities more likely to require additional preclinical studies or clinical trials. If the FDA requires us to conduct additional preclinical studies or clinical trials prior to approving any of our product candidates, our ability to obtain approval of this product candidate will be delayed. If the FDA requires us to provide additional clinical or preclinical data following the approval of any of our product candidates, the indications for which this product candidate is approved may be limited or there may be specific warnings or limitations on dosing, and our efforts to commercialize our product candidates may be otherwise adversely impacted.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our receipt of necessary regulatory approvals could be delayed or prevented.

We may not be able to initiate or continue clinical trials for one or more of our product candidates if we are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or similar regulatory authorities outside the United States. Some of our competitors have ongoing clinical trials for product candidates that treat the same indications as our product candidates, and patients who would otherwise be eligible for our clinical trials may instead enroll in clinical trials of our competitors' product candidates. Available therapies for the indications we are pursuing can also affect enrollment in our clinical trials. Patient enrollment is affected by other factors including, but not necessarily limited to:

- the severity of the disease under investigation;
- the eligibility criteria for the study in question;
- the perceived risks and benefits of the product candidate under study;
- the efforts to facilitate timely enrollment in clinical trials;
- the patient referral practices of physicians;
- the ability to monitor patients adequately during and after treatment; and
- the proximity and availability of clinical trial sites for prospective patients.

Our inability to enroll a sufficient number of patients for our clinical trials would result in significant delays and could require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidate or future product candidates, which would cause the value of our company to decline and limit our ability to obtain additional financing.

Our product candidates are in scientific areas of intense competition from many large pharmaceutical and biotechnology companies, many of which are significantly further along in development or are already on the market with competing products. We expect competition for our product candidates will intensify, and new products may emerge that provide different or better therapeutic alternatives for our targeted indications.

The biotechnology and pharmaceutical industries are subject to rapid and intense technological change. We face, and will continue to face, competition in the development and marketing of our product candidates from academic institutions, government agencies, research institutions and biotechnology and pharmaceutical companies. There can be no assurance that developments by others will not render one or more of our product candidates obsolete or noncompetitive. Furthermore, new developments, including the development of other drug technologies and methods of preventing the incidence of disease, occur in the pharmaceutical industry at a rapid pace. These developments may render one or more of our product candidates obsolete or noncompetitive.

Our product candidates will compete with other product candidates with similar indications. Please refer to Item 1. "Business — Competition".

Competitors may seek to develop alternative formulations that do not directly infringe on our in-licensed patent rights. The commercial opportunity for one or more of our product candidates could be significantly harmed if competitors are able to develop alternative formulations outside the scope of our in-licensed patents. Compared to us, many of our potential competitors have substantially greater:

- capital resources;
- development resources, including personnel and technology;
- clinical trial experience;
- regulatory experience;
- expertise in prosecution of intellectual property rights; and
- manufacturing, distribution and sales and marketing experience.

As a result of these factors, our competitors may obtain regulatory approval of their products more rapidly than we are able to or may obtain patent protection or other intellectual property rights that limit our ability to develop or commercialize one or more of our product candidates. Our competitors may also develop drugs that are more effective, safe, useful and less costly than ours and may be more successful than us in manufacturing and marketing their products.

Our commercial success depends upon us attaining significant market acceptance of our product candidates, if approved for sale, among physicians, patients, healthcare payors and major operators of cancer and other clinics.

Even if we obtain regulatory approval for one or more of our product candidates, the product may not gain market acceptance among physicians, health care payors, patients and the medical community, which are critical to commercial success. Market acceptance of any product candidate for which we receive approval depends on a number of factors, including, but not necessarily limited to:

- the efficacy and safety as demonstrated in clinical trials;
- the timing of market introduction of such product candidate as well as competitive products;
- the clinical indications for which the drug is approved;
- acceptance by physicians, major operators of cancer clinics and patients of the drug as a safe and effective treatment;
- the safety of such product candidate seen in a broader patient group, including its use outside the approved indications;
- the availability, cost and potential advantages of alternative treatments, including less expensive generic drugs;
- the availability of adequate reimbursement and pricing by third-party payors and government authorities;
- the relative convenience and ease of administration of the product candidate for clinical practices;
- the product labeling or product insert required by the FDA or regulatory authority in other countries;
- the approval, availability, market acceptance and reimbursement for a companion diagnostic, if any;
- the prevalence and severity of adverse side effects; and
- the effectiveness of our sales and marketing efforts.

If any product candidate that we develop does not provide a treatment regimen that is as beneficial as, or is not perceived as being as beneficial as, the current standard of care or otherwise does not provide patient benefit, that product candidate, if approved for commercial sale by the FDA or other regulatory authorities, likely will not achieve market acceptance. Our ability to effectively promote and sell any approved products will also depend on pricing and cost-effectiveness, including our ability to produce a product at a competitive price and our ability to obtain sufficient third-party coverage or reimbursement. If any product candidate is approved but does not achieve an adequate level of acceptance by physicians, patients and third-party payors, our ability to generate revenues from that product would be substantially reduced. In addition, our efforts to educate the medical community and third-party payors on the benefits of our product candidates may require significant resources, may be constrained by FDA rules and policies on product promotion, and may never be successful.

If approved, our product candidates will face competition from less expensive generic products of competitors, and, if we are unable to differentiate the benefits of our product candidates over these less expensive alternatives, we may never generate meaningful product revenues.

Generic therapies are typically sold at lower prices than branded therapies and are generally preferred by hospital formularies and managed care providers of health services. We anticipate that, if approved, our product candidates will face increasing competition in the form of generic versions of branded products of competitors that have lost or will lose their patent exclusivity. In the future, we may face additional competition from a generic form when the patents covering it begin to expire, or earlier if the patents are successfully challenged. If we are unable to demonstrate to physicians and payers that the key differentiating features of our product candidates translate to overall clinical benefit or lower cost of care, we may not be able to compete with generic alternatives.

Reimbursement may be limited or unavailable in certain market segments for our product candidates, which could make it difficult for us to sell our products profitably.

There is significant uncertainty related to the third-party coverage and reimbursement of newly approved drugs. Such third-party payors include government health programs such as Medicare, managed care providers, private health insurers and other organizations. We intend to seek approval to market our product candidates in the US, the EU and other selected foreign jurisdictions. Market acceptance and sales of our product candidates in both domestic and international markets will depend significantly on the availability of adequate coverage and reimbursement from third-party payors for any of our product candidates and may be affected by existing and future health care reform measures. Government and other third-party payors are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for new drugs and, as a result, they may not cover or provide adequate payment for our product candidates. These payors may conclude that our product candidates are less safe, less effective or less cost-effective than existing or future introduced products, and third-party payors may not approve our product candidates for coverage and reimbursement or may cease providing coverage and reimbursement for these product candidates.

Obtaining coverage and reimbursement approval for a product from a government or other third-party payor is a time consuming and costly process that could require us to provide to the payor supporting scientific, clinical and cost-effectiveness data for the use of our products. We may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. If reimbursement of our future products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, we may be unable to achieve or sustain profitability.

In some foreign countries, particularly in the EU, the pricing of prescription pharmaceuticals is subject to governmental control. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product candidate. To obtain reimbursement or pricing approval in some countries, we may be required to conduct additional clinical trials that compare the cost-effectiveness of our product candidates to other available therapies. If reimbursement of our product candidates is unavailable or limited in scope or amount in a particular country, or if pricing is set at unsatisfactory levels, we may be unable to achieve or sustain profitability of our products in such country.

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

We currently do not have a marketing or sales organization for the marketing, sales and distribution of pharmaceutical products. In order to commercialize any product candidate that receives marketing approval, we would need to build marketing, sales, distribution, managerial and other non-technical capabilities or make arrangements with third parties to perform these services, and we may not be successful in doing so. In the event of successful development and regulatory approval of one or more of our product candidates or any future product candidate, we expect to build a targeted specialist sales force to market or co-promote the product. There are risks involved with establishing our own sales, marketing and distribution capabilities. For example, recruiting and training a sales force is expensive and time consuming and could delay any product launch. If the commercial launch of a product candidate for which we recruit a sales force and establish marketing capabilities is delayed or does not occur for any reason, we would have prematurely or unnecessarily incurred these commercialization expenses. This may be costly, and our investment would be lost if we cannot retain or reposition our sales and marketing personnel.

Factors that may inhibit our efforts to commercialize our products on our own include, but are not necessarily limited to:

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

As an alternative to establishing our own sales force, we may choose to partner with third parties that have well-established direct sales forces to sell, market and distribute our products.

We rely, and expect to continue to rely, on third parties to conduct our preclinical studies and clinical trials, and those third parties may not perform satisfactorily, including failing to meet deadlines for the completion of such trials or complying with applicable regulatory requirements.

We rely on third-party contract research organizations and site management organizations to conduct some of our preclinical studies and all of our clinical trials for our product candidates and for any future product candidate. We expect to continue to rely on third parties, such as contract research organizations, site management organizations, clinical data management organizations, medical institutions and clinical investigators, to conduct some of our preclinical studies and all of our clinical trials. The agreements with these third parties might terminate for a variety of reasons, including a failure to perform by the third parties. If we need to enter into alternative arrangements, that could delay our product development activities.

Our reliance on these third parties for research and development activities will reduce our control over these activities but will not relieve us of our responsibilities. For example, we will remain responsible for ensuring that each of our preclinical studies and clinical trials are conducted in accordance with the general investigational plan and protocols for the trial and for ensuring that our preclinical studies are conducted in accordance with good laboratory practice (GLP) as appropriate. Moreover, the FDA requires us to comply with standards, commonly referred to as good clinical practices (GCPs) for conducting, recording and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the rights, integrity and confidentiality of trial participants are protected. Regulatory authorities enforce these requirements through periodic inspections of trial sponsors, clinical investigators and trial sites. If we or any of our clinical research organizations fail to comply with applicable GCPs, the clinical data generated in our clinical trials may be deemed unreliable and the FDA or comparable foreign regulatory authorities may require us to perform additional clinical trials before approving our marketing applications. We cannot assure you that upon inspection by a given regulatory authority, such regulatory authority will determine that any of our clinical trials complies with GCP regulations. In addition, our clinical trials must be conducted with product produced under cGMP regulations. Our failure to comply with these regulations may require us to repeat clinical trials, which would delay the regulatory approval process. We also are required to register ongoing clinical trials and post the results of completed clinical trials on a government-sponsored database, ClinicalTrials.gov, within specified timeframes. Failure to do so can result in fines, adverse publicity and civil and criminal sanctions.

The third parties with whom we have contracted to help perform our preclinical studies or clinical trials may also have relationships with other entities, some of which may be our competitors. If these third parties do not successfully carry out their contractual duties, meet expected deadlines or conduct our preclinical studies or clinical trials in accordance with regulatory requirements or our stated protocols, we will not be able to obtain, or may be delayed in obtaining, marketing approvals for our product candidates and will not be able to, or may be delayed in our efforts to, successfully commercialize our product candidates.

If any of our relationships with these third-party contract research organizations or site management organizations terminates, we may not be able to enter into arrangements with alternative contract research organizations or site management organizations or to do so on commercially reasonable terms. Switching or adding additional contract research organizations or site management organizations involves additional cost and requires management time and focus. In addition, there is a natural transition period when a new contract research organization or site management organization commences work. As a result, delays could occur, which could compromise our ability to meet our desired development timelines. Though we carefully manage our relationships with our contract research organizations or site management organizations, there can be no assurance that we will not encounter similar challenges or delays in the future.

We contract with third parties for the manufacture of our product candidates for preclinical and clinical testing and expect to continue to do so for commercialization. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or any future product candidate or such quantities at an acceptable cost, which could delay, prevent or impair our development or commercialization efforts.

We do not have any manufacturing facilities or personnel. We rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates receive marketing approval. This reliance on third parties increases the risk that we will not have sufficient quantities of our product candidates or any future product candidate or such quantities at an acceptable cost or quality, which could delay, prevent or impair our development or commercialization efforts.

We also expect to rely on third-party manufacturers or third-party collaborators for the manufacture of commercial supply of any product candidates for which our collaborators or we obtain marketing approval. We may be unable to establish any agreements with third-party manufacturers or to do so on acceptable terms. Even if we are able to establish agreements with third-party manufacturers, reliance on third-party manufacturers entails additional risks, including, but not necessarily limited to:

- reliance on the third party for regulatory compliance and quality assurance;
- the possible breach of the manufacturing agreement by the third party;
- manufacturing delays if our third-party manufacturers give greater priority to the supply of other products over our product candidates or otherwise do not satisfactorily perform according to the terms of the agreement between us;
- the possible misappropriation of our proprietary information, including our trade secrets and know-how; and
- the possible termination or nonrenewal of the agreement by the third party at a time that is costly or inconvenient for us.

We rely on our third-party manufacturers to produce or purchase from third-party suppliers the materials and equipment necessary to produce our product candidates for our pre-clinical and clinical trials. There are a limited number of suppliers for raw materials and equipment that we use (or that are used on our behalf) to manufacture our drugs, and there may be a need to assess alternate suppliers to prevent a possible disruption of the manufacture of the materials and equipment necessary to produce our product candidates for our pre-clinical and clinical trials, and if approved, ultimately for commercial sale. We do not have any control over the process or timing of the acquisition of these raw materials or equipment by our third-party manufacturers. Any significant delay in the supply of a product candidate, or the raw material components thereof, for an ongoing pre-clinical or clinical trial due to the need to replace a third-party manufacturer could considerably delay completion of our pre-clinical or clinical trials, product testing and potential regulatory approval of our product candidates. If our manufacturers or we are unable to purchase these raw materials or equipment after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates would be delayed or there would be a shortage in supply, which would impair our ability to generate revenues from the sale of our product candidates.

The facilities used by our contract manufacturers to manufacture our product candidates must be approved by the FDA pursuant to inspections that will be conducted after we submit an NDA to the FDA. We do not control the manufacturing process of, and are completely dependent on, our contract manufacturers for compliance with cGMP regulations for manufacture of our product candidates. Third-party manufacturers may not be able to comply with the cGMP regulations or similar regulatory requirements outside the United States. Our failure, or the failure of our third-party manufacturers, to comply with applicable regulations could result in sanctions being imposed on us, including clinical holds, fines, injunctions, civil penalties, delays, suspension or withdrawal of approvals, license revocation, seizures or recalls of product candidates or products, operating restrictions and criminal prosecutions, any of which could significantly and adversely affect supplies of our products.

One or more of the product candidates that we may develop may compete with other product candidates and products for access to manufacturing facilities. There are a limited number of manufacturers that operate under cGMP regulations and that might be capable of manufacturing for us. Any performance failure on the part of our existing or future manufacturers could delay clinical development or marketing approval. We do not currently have arrangements in place for redundant supply or a second source for bulk drug substance. If our current contract manufacturers cannot perform as agreed, we may be required to replace such manufacturers. We may incur added costs and delays in identifying and qualifying any replacement manufacturers. The DEA restricts the importation of a controlled substance finished drug product when the same substance is commercially available in the United States, which could reduce the number of potential alternative manufacturers for one or more of our product candidates.

Our current and anticipated future dependence upon others for the manufacture of our product candidates or products may adversely affect our future profit margins and our ability to commercialize any products that receive marketing approval on a timely and competitive basis.

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

We rely on clinical data and results obtained by third parties that could ultimately prove to be inaccurate or unreliable.

As part of our strategy to mitigate development risk, we seek to develop product candidates with validated mechanisms of action and we utilize biomarkers to assess potential clinical efficacy early in the development process. This strategy necessarily relies upon clinical data and other results obtained by third parties that may ultimately prove to be inaccurate or unreliable. Further, such clinical data and results may be based on products or product candidates that are significantly different from our product candidates or any future product candidate. If the third-party data and results we rely upon prove to be inaccurate, unreliable or not applicable to our product candidates or future product candidate, we could make inaccurate assumptions and conclusions about our product candidates and our research and development efforts could be compromised.

If we breach any of the agreements under which we license rights to one or more of product candidates from others, we could lose the ability to continue to develop and commercialize such product candidate.

Because we have in-licensed the rights to all of our product candidates from COH, and in the future will continue to in-license from additional third parties, if there is any dispute between us and our licensor regarding our rights under our license agreement, our ability to develop and commercialize these product candidates may be adversely affected. Any uncured, material breach under our license agreement could result in our loss of exclusive rights to our product candidate and may lead to a complete termination of our related product development efforts.

We may not be able to manage our business effectively if we are unable to attract and retain key personnel.

We may not be able to attract or retain qualified management and commercial, scientific and clinical personnel in the future due to the intense competition for qualified personnel among biotechnology, pharmaceutical and other businesses. If we are not able to attract and retain necessary personnel to accomplish our business objectives, we may experience constraints that will significantly impede the achievement of our development objectives, our ability to raise additional capital and our ability to implement our business strategy.

Our employees may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements, which could have a material adverse effect on our business.

We are exposed to the risk of employee fraud or other misconduct. Misconduct by employees could include intentional failures to comply with FDA regulations, provide accurate information to the FDA, comply with manufacturing standards we have established, comply with federal and state health-care fraud and abuse laws and regulations, report financial information or data accurately or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements. Employee misconduct could also involve the improper use of information obtained in the course of clinical trials, which could result in regulatory sanctions and serious harm to our reputation. The precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business and results of operations, including the imposition of significant fines or other sanctions.

We face potential product liability exposure, and if successful claims are brought against us, we may incur substantial liability for one or more of our product candidates or a future product candidate we may license or acquire and may have to limit their commercialization.

The use of one or more of our product candidates and any future product candidate we may license or acquire in clinical trials and the sale of any products for which we obtain marketing approval expose us to the risk of product liability claims. For example, we may be sued if any product we develop allegedly causes injury or is found to be otherwise unsuitable during clinical 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 or a breach of warranties. Product liability claims might be brought against us by consumers, health care providers or others using, administering or selling our products. If we cannot successfully defend ourselves against these claims, we will incur substantial liabilities. Regardless of merit or eventual outcome, liability claims may result in:

- withdrawal of clinical trial participants;
- termination of clinical trial sites or entire trial programs;
- decreased demand for any product candidates or products that we may develop;
- initiation of investigations by regulators;
- impairment of our business reputation;
- costs of related litigation;
- substantial monetary awards to patients or other claimants;
- loss of revenues;
- reduced resources of our management to pursue our business strategy; and
- the inability to commercialize our product candidate or future product candidates.

We will obtain limited product liability insurance coverage for any and all of our upcoming clinical trials. However, our insurance coverage may not reimburse us or may not be sufficient to reimburse us for any expenses or losses we may suffer. Moreover, insurance coverage is becoming increasingly expensive, and, in the future, we may not be able to maintain insurance coverage at a reasonable cost or in sufficient amounts to protect us against losses due to liability. When needed we intend to expand our insurance coverage to include the sale of commercial products if we obtain marketing approval for one or more of our product candidates in development, but we may be unable to obtain commercially reasonable product liability insurance for any products approved for marketing. On occasion, large judgments have been awarded in class action lawsuits based on drugs that had unanticipated side effects. A successful product liability claim or series of claims brought against us could cause our stock price to fall and, if judgments exceed our insurance coverage, could decrease our cash and adversely affect our business.

Our future growth depends on our ability to identify and acquire or in-license products and if we do not successfully identify and acquire or in-license related product candidates or integrate them into our operations, we may have limited growth opportunities.

An important part of our business strategy is to continue to develop a pipeline of product candidates by acquiring or in-licensing products, businesses or technologies that we believe are a strategic fit with our focus on novel combinations of immuno-oncology antibodies and small molecule kinase inhibitors. Future in-licenses or acquisitions, however, may entail numerous operational and financial risks, including, but not necessarily limited to:

- exposure to unknown liabilities;
- disruption of our business and diversion of our management’s time and attention to develop acquired products or technologies;
- difficulty or inability to secure financing to fund development activities for such acquired or in-licensed technologies in the current economic environment;

- incurrence of substantial debt or dilutive issuances of securities to pay for acquisitions;
- higher than expected acquisition and integration costs;
- increased amortization expenses;
- difficulty and cost in combining the operations and personnel of any acquired businesses with our operations and personnel;
- impairment of relationships with key suppliers or customers of any acquired businesses due to changes in management and ownership; and
- inability to retain key employees of any acquired businesses.

We have limited resources to identify and execute the acquisition or in-licensing of third-party products, businesses and technologies and integrate them into our current infrastructure. In particular, we may compete with larger pharmaceutical companies and other competitors in our efforts to establish new collaborations and in-licensing opportunities. These competitors likely will have access to greater financial resources than us and may have greater expertise in identifying and evaluating new opportunities. Moreover, we may devote resources to potential acquisitions or in-licensing opportunities that are never completed, or we may fail to realize the anticipated benefits of such efforts.

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

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

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. Although we believe that the safety procedures for handling and disposing of these materials comply with the standards prescribed by these laws and regulations, we cannot eliminate the risk of accidental contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

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

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

Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems are vulnerable to damage from computer viruses, unauthorized access, natural disasters, terrorism, war and telecommunication and electrical failures. Any system failure, accident or security breach that causes interruptions in our operations could result in a material disruption of our drug development programs. For example, the loss of clinical trial data from completed clinical trials for one or more of our product conducts could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the data. To the extent that any disruption or security breach results in a loss or damage to our data or applications, or inappropriate disclosure of confidential or proprietary information, we may incur liability and the further development of one or more of our product candidates may be delayed.

We are partly reliant on the City of Hope National Medical Center for research and development and early clinical testing of certain of our product candidates.

A substantial portion of our research and development has been conducted by COH pursuant to a sponsored research agreement executed between Mustang and COH in March 2015. We have limited control over the nature or timing of COH's research and limited visibility into its day-to-day activities. Our future success is heavily dependent on the results of research and development efforts of Dr. Stephen Forman and his laboratory team at COH.

CAR-T is a new approach to cancer treatment that presents significant challenges.

We have concentrated our research and development efforts on CAR-T technology, and our future success is highly dependent on the successful development of T cell immunotherapies in general and our CAR-T technology and product candidates in particular. Because CAR-T is a new approach to cancer immunotherapy and cancer treatment generally, developing and commercializing our product candidates subjects us to a number of challenges, including, but not necessarily limited to:

- obtaining regulatory approval from the FDA and other regulatory authorities that may have very limited experience with the commercial development of genetically modified T cell therapies for cancer;
- developing and deploying consistent and reliable processes for engineering a patient's T cells ex vivo and infusing the engineered T cells back into the patient;
- conditioning patients with chemotherapy in conjunction with delivering each of our products, which may increase the risk of adverse side effects of our products;
- educating medical personnel regarding the potential side effect profile of each of our products;
- developing processes for the safe administration of these products, including long-term follow-up for all patients who receive our product candidates;
- sourcing clinical and, if approved, commercial supplies for the materials used to manufacture and process our product candidates;
- developing a manufacturing process and distribution network with a cost of goods that allows for an attractive return on investment;
- establishing sales and marketing capabilities after obtaining any regulatory approval to gain market acceptance, and obtaining adequate coverage, reimbursement and pricing by third-party payors and government authorities; and
- developing therapies for types of cancers beyond those addressed by our current product candidates.

Product candidates, even if successfully developed and commercialized, may be effective only in combatting certain specific types of cancer, and the market for drugs designed to combat such cancer type(s) may be small and unprofitable.

There are many different types of cancer, and a treatment that is effective against one type of cancer may not be effective against another. CAR-T or other technologies we pursue may only be effective in combatting specific types of cancer but not others. Even if one or more of our products proves to be an effective treatment against a given type of cancer, the number of patients suffering from such cancer may be small, in which case potential sales from a drug designed to combat such cancer would be limited.

Risks Related to Intellectual Property

If we are unable to obtain and maintain patent protection for our technology and products or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize technology and products similar or identical to ours, and our ability to successfully commercialize our technology and products may be impaired.

Our commercial success will depend in part on obtaining and maintaining patent protection and trade secret protection in the US and other countries with respect to our product candidates or any future product candidate that we may license or acquire and the methods we use to manufacture them, as well as successfully defending these patents and trade secrets against third-party challenges. We seek to protect our proprietary position by filing patent applications in the United States and abroad related to our product candidates. We will only be able to protect our technologies from unauthorized use by third parties to the extent that valid and enforceable patents or trade secrets cover them.

The patent prosecution process is expensive and time-consuming, and we may not be able to file and prosecute all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify any patentable aspects of our research and development output, and, if we do, an opportunity to obtain patent protection may have passed. If our licensors or we fail to obtain or maintain patent protection or trade secret protection for one or more of product candidates or any future product candidate we may license or acquire, third parties may be able to access our proprietary information, which could impair our ability to compete in the market and adversely affect our ability to generate revenues and achieve profitability. Moreover, should we enter into other collaborations we may be required to consult with or cede control to collaborators regarding the prosecution, maintenance and enforcement of licensed patents. Therefore, these patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business.

The patent position of biotechnology and pharmaceutical companies generally is highly uncertain, involves complex legal and factual questions and has in recent years been the subject of much litigation. In addition, no consistent policy regarding the breadth of claims allowed in pharmaceutical or biotechnology patents has emerged to date in the US. The patent situation outside the US is even more uncertain. The laws of foreign countries may not protect our rights to the same extent as the laws of the US. For example, European patent law restricts the patentability of methods of treatment of the human body more than US law does. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the US and other jurisdictions are typically not published until 18 months after a first filing, if at all. Therefore, we cannot know with certainty whether we or our licensors were the first to make the inventions claimed in patents or pending patent applications that we own or licensed, or that we or our licensors were the first to file for patent protection of such inventions. In the event that a third party has also filed a US patent application relating to our product candidates or a similar invention, depending upon the priority dates claimed by the competing parties, we may have to participate in interference proceedings declared by the PTO to determine priority of invention in the US. The costs of these proceedings could be substantial and it is possible that our efforts to establish priority of invention would be unsuccessful, resulting in a material adverse effect on our US patent position. As a result, the issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued which protect our technology or products, in whole or in part, or which effectively prevent others from commercializing competitive technologies and products. Changes in either the patent laws or interpretation of the patent laws in the US and other countries may diminish the value of our patents or narrow the scope of our patent protection. For example, the federal courts of the US have taken an increasingly dim view of the patent eligibility of certain subject matter, such as naturally occurring nucleic acid sequences, amino acid sequences and certain methods of utilizing same, which include their detection in a biological sample and diagnostic conclusions arising from their detection. Such subject matter, which had long been a staple of the biotechnology and biopharmaceutical industry to protect their discoveries, is now considered, with few exceptions, ineligible in the first place for protection under the patent laws of the US. Accordingly, we cannot predict the breadth of claims that may be allowed or enforced in our patents or in those licensed from a third-party.

Recent patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. On September 16, 2011, the Leahy-Smith America Invents Act, or the Leahy-Smith Act, was signed into law. The Leahy-Smith Act includes a number of significant changes to United States patent law. These include provisions that affect the way patent applications are prosecuted and may also affect patent litigation. The PTO recently developed new regulations and procedures to govern administration of the Leahy-Smith Act, and many of the substantive changes to patent law associated with the Leahy-Smith Act, and in particular, the first inventor-to-file provisions, only became effective on March 16, 2013. Accordingly, it is not clear what, if any, impact the Leahy-Smith Act will have on the operation of our business. However, the Leahy-Smith Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

Moreover, we may be subject to a third-party preissuance submission of prior art to the PTO, or become involved in opposition, derivation, reexamination, *inter partes* review, post-grant review or interference proceedings challenging our patent rights or the patent rights of others. An adverse determination in any such submission, patent office trial, proceeding or litigation could reduce the scope of, render unenforceable, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Even if our patent applications issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors from competing with us or otherwise provide us with any competitive advantage. Our competitors may be able to circumvent our owned or licensed patents by developing similar or alternative technologies or products in a non-infringing manner.

The issuance of a patent does not foreclose challenges to its inventorship, scope, validity or enforceability. Therefore, our owned and licensed patents may be challenged in the courts or patent offices in the United States and abroad. Such challenges may result in loss of exclusivity or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of our technology and products. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such product candidates might expire before or shortly after such product candidates are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours.

We depend on our licensors for the maintenance and enforcement of intellectual property covering certain of our product candidates and have limited control, if any, over the amount or timing of resources that our licensors devote on our behalf, or whether any financial difficulties experienced by our licensors could result in their unwillingness or inability to secure, maintain and enforce patents protecting certain of our product candidates.

We depend on our licensors to protect the proprietary rights covering our product candidates and we have limited, if any, control over the amount or timing of resources that they devote on our behalf, or the priority they place on, maintaining patent rights and prosecuting patent applications to our advantage.

Our licensors, depending on the patent or application, are responsible for maintaining issued patents and prosecuting patent applications. We cannot be sure that they will perform as required. Should they decide they no longer want to maintain any of the patents licensed to us, they are required to afford us the opportunity to do so at our expense. If our licensors do not perform, and if we do not assume the maintenance of the licensed patents in sufficient time to make required payments or filings with the appropriate governmental agencies, we risk losing the benefit of all or some of those patent rights. Moreover, our licensors may experience serious difficulties related to their overall business or financial stability, and they may be unwilling or unable to continue to expend the financial resources required to maintain and prosecute these patents and patent applications. While we intend to take actions reasonably necessary to enforce our patent rights, we depend, in part, on our licensors to protect a substantial portion of our proprietary rights.

Our licensors may also be notified of alleged infringement and be sued for infringement of third-party patents or other proprietary rights. We may have limited, if any, control or involvement over the defense of these claims, and our licensors could be subject to injunctions and temporary or permanent exclusionary orders in the US or other countries. Our licensors are not obligated to defend or assist in our defense against third-party claims of infringement. We have limited, if any, control over the amount or timing of resources, if any, that our licensors devote on our behalf or the priority they place on defense of such third-party claims of infringement.

Because of the uncertainty inherent in any patent or other litigation involving proprietary rights, we or our licensors may not be successful in defending claims of intellectual property infringement alleged by third parties, which could have a material adverse effect on our results of operations. Regardless of the outcome of any litigation, defending the litigation may be expensive, time-consuming and distracting to management.

Because it is difficult and costly to protect our proprietary rights, we may not be able to ensure their protection.

The degree of future protection for our proprietary rights is uncertain, because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- our licensors might not have been the first to make the inventions covered by each of our pending patent applications and issued patents;
- our licensors might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate our product candidates or any future product candidate technologies;
- it is possible that none of the pending patent applications licensed to us will result in issued patents;
- the issued patents covering our product candidates or any future product candidate may not provide a basis for market exclusivity for active products, may not provide us with any competitive advantages, or may be challenged by third parties;
- we may not develop additional proprietary technologies that are patentable; or
- patents of others may have an adverse effect on our business.

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

Competitors may infringe our issued patents or other intellectual property. To counter infringement or unauthorized use, we may be required to file one or more actions for patent infringement, which can be expensive and time consuming. Any claims we assert against accused infringers could provoke these parties to assert counterclaims against us alleging that we infringe their patents. In addition, in a patent infringement proceeding, a court may decide that a patent of ours is invalid or unenforceable, in whole or in part, construe the patent's claims narrowly or refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated, rendered unenforceable, or interpreted narrowly.

If we are sued for infringing intellectual property rights of third parties, it will be costly and time consuming, and an unfavorable outcome in any litigation would harm our business.

Our ability to develop, manufacture, market and sell one or more of our product candidates or any future product candidate that we may license or acquire depends upon our ability to avoid infringing the proprietary rights of third parties. Numerous US and foreign issued patents and pending patent applications, which are owned by third parties, exist in the general fields of fully human immuno-oncology targeted antibodies and cover the use of numerous compounds and formulations in our targeted markets. Because of the uncertainty inherent in any patent or other litigation involving proprietary rights, we and our licensors may not be successful in defending intellectual property claims asserted by third parties, which could have a material adverse effect on our results of operations. Regardless of the outcome of any litigation, defending the litigation may be expensive, time-consuming and distracting to management. In addition, because patent applications can take many years to issue, there may be currently pending applications that are unknown to us, which may later result in issued patents that one or more of our product candidates may infringe. There could also be existing patents of which we are not aware that one or more of our product candidates may infringe, even if only inadvertently.

There is a substantial amount of litigation involving patent and other intellectual property rights in the biotechnology and biopharmaceutical industries generally. If a third party claims that we infringe their patents or misappropriated their technology, we could face a number of issues, including:

- infringement and other intellectual property claims which, with or without merit, can be expensive and time consuming to litigate and can divert management's attention from our core business;
- substantial damages for past infringement which we may have to pay if a court decides that our product infringes a competitor's patent;
- a court prohibiting us from selling or licensing our product unless the patent holder licenses the patent to us, which it would not be required to do;
- if a license is available from a patent holder, we may have to pay substantial royalties or grant cross licenses to our patents; and
- redesigning our processes so they do not infringe, which may not be possible or could require substantial funds and time.

Intellectual property litigation could cause us to spend substantial resources and distract our personnel from their normal responsibilities.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses, and could distract our technical and management personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could compromise our ability to compete in the marketplace.

We may need to license certain intellectual property from third parties, and such licenses may not be available or may not be available on commercially reasonable terms.

A third party may hold intellectual property, including patent rights that are important or necessary to the development and commercialization of our products. It may be necessary for us to use the patented or proprietary technology of third parties to commercialize our products, in which case we would be required to obtain a license from these third parties on commercially reasonable terms, or our business could be harmed, possibly materially.

If we fail to comply with our obligations in our intellectual property licenses and funding arrangements with third parties, we could lose rights that are important to our business.

We are currently a party to a license agreement with the City of Hope. In the future, we may become party to licenses that are important for product development and commercialization. If we fail to comply with our obligations under current or future license and funding agreements, our counterparties may have the right to terminate these agreements, in which event we might not be able to develop, manufacture or market any product or utilize any technology that is covered by these agreements or may face other penalties under the agreements. Such an occurrence could materially and adversely affect the value of a product candidate being developed under any such agreement or could restrict our drug discovery activities. Termination of these agreements or reduction or elimination of our rights under these agreements may result in our having to negotiate new or reinstated agreements with less favorable terms, or cause us to lose our rights under these agreements, including our rights to important intellectual property or technology.

We may be subject to claims that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

As is common in the biotechnology and pharmaceutical industry, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that we or these 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.

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

In addition to seeking patent protection for our product candidates or any future product candidate, we also rely on trade secrets, including unpatented know-how, technology and other proprietary information, to maintain our competitive position, particularly where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to protect. We limit disclosure of such trade secrets where possible but we also seek to protect these trade secrets, in part, by entering into non-disclosure and confidentiality agreements with parties who do have access to them, such as our employees, our licensors, corporate collaborators, outside scientific collaborators, contract manufacturers, consultants, advisors and other third parties. We also enter into confidentiality and invention or patent assignment agreements with our employees and consultants. Despite these efforts, any of these parties may breach the agreements and may unintentionally or willfully disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the United States are less willing or unwilling to protect trade secrets. Moreover, if any of our trade secrets were to be lawfully obtained or independently developed by a competitor, we would have no right to prevent them, or those to whom they communicate it, from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor, our competitive position would be harmed.

Risks Related to Our Finances and Capital Requirements

We have incurred significant losses since our inception. We expect to incur losses for the foreseeable future, and may never achieve or maintain profitability.

We are an emerging growth company with a limited operating history. We have focused primarily on in-licensing and developing our product candidates, with the goal of supporting regulatory approval for these product candidates. We have incurred losses since our inception in March 2015, and have an accumulated deficit of $17.1 million as of December 31, 2016. We expect to continue to incur significant operating losses for the foreseeable future. We also do not anticipate that we will achieve profitability for a period of time after generating material revenues, if ever. If we are unable to generate revenues, we will not become profitable and may be unable to continue operations without continued funding.

Because of the numerous risks and uncertainties associated with developing pharmaceutical products, we are unable to predict the timing or amount of increased expenses or when or if, we will be able to achieve profitability. Our net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase substantially if:

- one or more of our product candidates are approved for commercial sale, due to our ability to establish the necessary commercial infrastructure to launch this product candidate without substantial delays, including hiring sales and marketing personnel and contracting with third parties for warehousing, distribution, cash collection and related commercial activities;
- we are required by the FDA or foreign regulatory authorities, to perform studies in addition to those currently expected;
- there are any delays in completing our clinical trials or the development of any of our product candidates;
- we execute other collaborative, licensing or similar arrangements and the timing of payments we may make or receive under these arrangements;
- there are variations in the level of expenses related to our future development programs;
- there are any product liability or intellectual property infringement lawsuits in which we may become involved;
- there are any regulatory developments affecting product candidates of our competitors; and
- one or more of our product candidates receives regulatory approval.

Our ability to become profitable depends upon our ability to generate revenue. To date, we have not generated any revenue from our development stage products, and we do not know when, or if, we will generate any revenue. Our ability to generate revenue depends on a number of factors, including, but not limited to, our ability to:

- obtain regulatory approval for one or more of our product candidates, or any future product candidate that we may license or acquire;
- manufacture commercial quantities of one or more of our product candidates or any future product candidate, if approved, at acceptable cost levels; and
- develop a commercial organization and the supporting infrastructure required to successfully market and sell one or more of our product candidates or any future product candidate, if approved.

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

Our short operating history makes it difficult to evaluate our business and prospects.

We were incorporated in March 2015 and have only been conducting operations with respect to our product candidates since March 2015. Our operations to date have been limited to preclinical operations and the in-licensing of our product candidates. We have not yet demonstrated an ability to successfully complete clinical trials, obtain regulatory approvals, manufacture a commercial scale product, or arrange for a third party to do so on our behalf, or conduct sales and marketing activities necessary for successful product commercialization. Consequently, any predictions about our future performance may not be as accurate as they could be if we had a history of successfully developing and commercializing pharmaceutical products.

In addition, as a young business, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown factors. We will need to expand our capabilities to support commercial activities. We may not be successful in adding such capabilities.

We expect our financial condition and operating results to continue to fluctuate significantly from quarter to quarter and year to year due to a variety of factors, many of which are beyond our control. Accordingly, you should not rely upon the results of any past quarterly period as an indication of future operating performance.

We do not have any products that are approved for commercial sale and therefore do not expect to generate any revenues from product sales in the foreseeable future, if ever.

We have not generated any product related revenues to date, and do not expect to generate any such revenues for at least the next several years, if at all. To obtain revenues from sales of our product candidates, we must succeed, either alone or with third parties, in developing, obtaining regulatory approval for, manufacturing and marketing products with commercial potential. We may never succeed in these activities, and we may not generate sufficient revenues to continue our business operations or achieve profitability.

We will require substantial additional funding which may not be available to us on acceptable terms, or at all. If we fail to raise the necessary additional capital, we may be unable to complete the development and commercialization of our product candidates, or continue our development programs.

Our operations have consumed substantial amounts of cash since inception. We expect to significantly increase our spending to advance the preclinical and clinical development of our product candidates and launch and commercialize any product candidates for which we receive regulatory approval, including building our own commercial organizations to address certain markets. We will require additional capital for the further development and commercialization of our product candidates, as well as to fund our other operating expenses and capital expenditures. As of December 31, 2016 we had $27.5 million in cash. We cannot provide any assurance that we will be able to raise funds to complete the development of our product.

We cannot be certain that additional funding will be available on acceptable terms, or at all. If we are unable to raise additional capital in sufficient amounts or on terms acceptable to us we may have to significantly delay, scale back or discontinue the development or commercialization of one or more of our product candidates. We may also seek collaborators for one or more of our current or future product candidates at an earlier stage than otherwise would be desirable or on terms that are less favorable than might otherwise be available. Any of these events could significantly harm our business, financial condition and prospects.

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

- the timing, design and conduct of, and results from, pre-clinical and clinical trials for our product candidates;

- the potential for delays in our efforts to seek regulatory approval for our product candidates, and any costs associated with such delays;
- the costs of establishing a commercial organization to sell, market and distribute our product candidates;
- the rate of progress and costs of our efforts to prepare for the submission of an NDA for any product candidates that we may in-license or acquire in the future, and the potential that we may need to conduct additional clinical trials to support applications for regulatory approval;
- the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights associated with our product candidates, including any such costs we may be required to expend if our licensors are unwilling or unable to do so;
- the cost and timing of securing sufficient supplies of our product candidates from our contract manufacturers for clinical trials and in preparation for commercialization;
- the effect of competing technological and market developments;
- the terms and timing of any collaborative, licensing, co-promotion or other arrangements that we may establish;
- if one or more of our product candidates are approved, the potential that we may be required to file a lawsuit to defend our patent rights or regulatory exclusivities from challenges by companies seeking to market generic versions of one or more of our product candidates; and
- the success of the commercialization of one or more of our product candidates.

Future capital requirements will also depend on the extent to which we acquire or invest in additional complementary businesses, products and technologies, but we currently have no commitments or agreements relating to any of these types of transactions.

In order to carry out our business plan and implement our strategy, we anticipate that we will need to obtain additional financing from time to time and may choose to raise additional funds through strategic collaborations, licensing arrangements, public or private equity or debt financing, bank lines of credit, asset sales, government grants, or other arrangements. We cannot be sure that any additional funding, if needed, will be available on terms favorable to us or at all. Furthermore, any additional equity or equity-related financing may be dilutive to our stockholders, and debt or equity financing, if available, may subject us to restrictive covenants and significant interest costs. If we obtain funding through a strategic collaboration or licensing arrangement, we may be required to relinquish our rights to certain of our product candidates or marketing territories.

Our inability to raise capital when needed would harm our business, financial condition and results of operations, and could cause our stock value to decline or require that we wind down our operations altogether.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish proprietary rights.

Until such time, if ever, as we can generate substantial product revenue, we expect to finance our cash needs through a combination of equity offerings, debt financings, grants and license and development agreements in connection with any collaborations. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a stockholder. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

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

We intend to become a listed and traded public company. As a public company, we will incur significant legal, accounting and other expenses under the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, as well as rules subsequently implemented by the SEC, and the rules of any stock exchange on which we become listed. These rules impose various requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and appropriate corporate governance practices. Our management and other personnel have devoted and will continue to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations increase our legal and financial compliance costs and make some activities more time-consuming and costly. For example, these rules and regulations make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. As a result, it may be more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

The Sarbanes-Oxley Act requires, among other things, that we maintain effective internal controls for financial reporting and disclosure controls and procedures. As a result, we are required to periodically perform an evaluation of our internal controls over financial reporting to allow management to report on the effectiveness of those controls, as required by Section 404 of the Sarbanes-Oxley Act. Additionally, our independent auditors are required to perform a similar evaluation and report on the effectiveness of our internal controls over financial reporting. These efforts to comply with Section 404 and related regulations have required, and continue to require, the commitment of significant financial and managerial resources. While we anticipate maintaining the integrity of our internal controls over financial reporting and all other aspects of Section 404, we cannot be certain that a material weakness will not be identified when we test the effectiveness of our control systems in the future. If a material weakness is identified, we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources, costly litigation or a loss of public confidence in our internal controls, which could have an adverse effect on the market price of our stock.

Compliance with the Sarbanes-Oxley Act of 2002 will require substantial financial and management resources and may increase the time and costs of completing an acquisition.

A business that we identify as a potential acquisition target may not be in compliance with the provisions of the Sarbanes-Oxley Act regarding the adequacy of internal controls. The development of the internal controls of any such entity to achieve compliance with the Sarbanes-Oxley Act may increase the time and costs necessary to complete any such acquisition. Furthermore, any failure to implement required new or improved controls, or difficulties encountered in the implementation of adequate controls over our financial processes and reporting in the future, could harm our operating results or cause us to fail to meet our reporting obligations. Inferior internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our securities.

We are an "emerging growth company" and we cannot be certain if the reduced disclosure requirements applicable to emerging growth companies will make our securities less attractive to investors.

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups (JOBS) Act. We will remain an "emerging growth company" for up to five years. However, if our non-convertible debt issued within a three-year period or revenues exceeds $1 billion, or the market value of our equity shares that are held by non-affiliates exceeds $700 million on the last day of the second fiscal quarter of any given fiscal year, we would cease to be an emerging growth company as of the following fiscal year. As an emerging growth company, we are not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, we have reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and we are exempt from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

Further, Section 102(b)(1) of the JOBS Act exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies (that is, those that have not had a Securities Act registration statement declared effective or do not have a class of securities registered under the Exchange Act) are required to comply with the new or revised financial accounting standards. The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies, but any such an election to opt out is irrevocable. We have elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an emerging growth company, will not adopt the new or revised standard until the time private companies are required to adopt the new or revised standard. This may make comparison of our financial statements with another public company, which is neither an emerging growth company nor an emerging growth company, which has opted out of using the extended transition period, difficult or impossible because of the potential differences in accounting standards used.

Our results of operations and liquidity needs could be materially negatively affected by market fluctuations and economic downturn.

Our results of operations could be materially negatively affected by economic conditions generally, both in the US and elsewhere around the world. Continuing concerns over inflation, energy costs, geopolitical issues, the availability and cost of credit, the US mortgage market and residential real estate market in the US have contributed to increased volatility and diminished expectations for the economy and the markets going forward. These factors, combined with volatile oil prices, declining business and consumer confidence and increased unemployment, have precipitated an economic recession and fears of a possible depression. Domestic and international equity markets continue to experience heightened volatility and turmoil. These events and the continuing market upheavals may have an adverse effect on us. In the event of a continuing market downturn, our results of operations could be adversely affected by those factors in many ways, including making it more difficult for us to raise funds if necessary, and our stock price may further decline.

Our ability to use our pre-change NOLs and other pre-change tax attributes to offset post-change taxable income or taxes may be subject to limitation.

We may, from time to time, carry net operating loss carryforwards ("NOLs") as deferred tax assets on our balance sheet. Under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, if a corporation undergoes an "ownership change" (generally defined as a greater than 50-percentage- point cumulative change (by value) in the equity ownership of certain stockholders over a rolling three-year period), the corporation's ability to use its pre-change NOLs and other pre-change tax attributes to offset its post-change taxable income or taxes may be limited. We may experience ownership changes in the future as a result of shifts in our stock ownership, some of which changes are outside our control. As a result, our ability to use our pre-change NOLs and other pre-change tax attributes to offset post-change taxable income or taxes may be subject to limitation.

Risks Relating to Securities Markets and Investment in Our Stock

Our stock may be subject to substantial price and volume fluctuations due to a number of factors, many of which are beyond our control and may prevent our stockholders from reselling our common stock at a profit.

The market prices for securities of biotechnology and pharmaceutical companies have historically been highly volatile, and the market has from time to time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies.

Once listed and trading, the market price of our common stock is likely to be highly volatile and may fluctuate substantially due to many factors, including:

- announcements concerning the progress of our efforts to obtain regulatory approval for and commercialize our product candidates or any future product candidate, including any requests we receive from the FDA for additional studies or data that result in delays in obtaining regulatory approval or launching these product candidates, if approved;
- market conditions in the pharmaceutical and biotechnology sectors or the economy as a whole;
- price and volume fluctuations in the overall stock market;
- the failure of one or more of our product candidates or any future product candidate, if approved, to achieve commercial success;
- announcements of the introduction of new products by us or our competitors;
- developments concerning product development results or intellectual property rights of others;
- litigation or public concern about the safety of our potential products;
- actual fluctuations in our quarterly operating results, and concerns by investors that such fluctuations may occur in the future;
- deviations in our operating results from the estimates of securities analysts or other analyst comments;
- additions or departures of key personnel;
- health care reform legislation, including measures directed at controlling the pricing of pharmaceutical products, and third-party coverage and reimbursement policies;
- developments concerning current or future strategic collaborations; and
- discussion of us or our stock price by the financial and scientific press and in online investor communities.

Fortress controls a voting majority of our common stock.

Pursuant to the terms of the Class A Preferred Stock held by Fortress, Fortress is entitled to cast, for each share of Class A Preferred held by Fortress, the number of votes that is equal to one and one-tenth (1.1) times a fraction, the numerator of which is the sum of (A) the shares of outstanding common stock and (B) the whole shares of Common Stock into which the shares of outstanding Class A Common Stock and the Class A Preferred Stock are convertible and the denominator of which is the number of shares of outstanding Class A Preferred Stock. Accordingly, Fortress is able to control or significantly influence all matters requiring approval by our stockholders, including the election of directors and the approval of mergers or other business combination transactions. The interests of Fortress may not always coincide with the interests of other stockholders, and Fortress may take actions that advance its own interests and are contrary to the desires of our other stockholders. Moreover, this concentration of voting power may delay, prevent or deter a change in control of us even when such a change may be in the best interests of all stockholders, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of Mustang or our assets, and might affect the prevailing market price of our common stock.

Fortress has the right to receive a significant grant of shares of our common stock annually which will result in the dilution of your holdings of common stock upon each grant, which could reduce their value. City of Hope has anti-dilution protection that could result in the dilution of your holding.

Under the terms of the Second Amended and Restated Founders Agreement (See Item 7. Certain Relationships and Related Transactions, and Director Independence), which became effective July 22, 2016, Fortress will receive a grant of shares of our common stock equal to two and one-half percent (2.5%) of the gross amount of any equity or debt financing. Additionally, the Class A Preferred Stock, as a class, will receive an annual dividend on March 13 th, payable in shares of Common Stock in an amount equal to two and one-half percent (2.5%) of our fully-diluted outstanding capital stock as of the business day immediately prior to March 13th of such year. Fortress currently owns all outstanding shares of Class A Preferred Stock. These share issuances to Fortress and any other holder of Class A Preferred Stock will dilute your holdings in our common stock and, if the value of Mustang has not grown proportionately over the prior year, would result in a reduction in the value of your shares. The Second Amended and Restated Founders Agreement has a term of 15 years and renews automatically for subsequent one-year periods unless terminated by Fortress or upon a Change in Control (as defined in the Second Amended and Restated Founders Agreement).

The Class A Common Stock held by the City of Hope has anti-dilution protection that gives them the right to additional shares of stock under certain circumstances. The amount of shares received by COH will vary depending on the triggering event. If any shares are required to be issued to COH, your holdings in our common stock will be diluted and result in a reduction in the value of your shares.

We might have received better terms from unaffiliated third parties than the terms we receive in our agreements with Fortress.

The agreements we have entered into with Fortress include a Management Services Agreement and the Founders Agreement. While we believe the terms of these agreements are reasonable, they might not reflect terms that would have resulted from arm's-length negotiations between unaffiliated third parties. The terms of the agreements relate to, among other things, payment of a royalty on product sales and the provision of employment and transition services. We might have received better terms from third parties because, among other things, third parties might have competed with each other to win our business.

The dual roles of our officers and directors who also serve in similar roles with Fortress could create a conflict of interest and will require careful monitoring by our independent directors.

We share some directors with Fortress, and in addition, under the Management Services Agreement, we will also share some officers with Fortress. This could create conflicts of interest between the two companies in the future. While we believe that the Founders Agreement and the Management Services Agreement were negotiated by independent parties on both sides on arm's length terms, and the fiduciary duties of both parties were thereby satisfied, in the future situations may arise under the operation of both agreements that may create a conflict of interest. We will have to be diligent to ensure that any such situation is resolved by independent parties. In particular, under the Management Services Agreement, Fortress and its affiliates are free to pursue opportunities which could potentially be of interest to Mustang, and they are not required to notify Mustang prior to pursuing such opportunities. Any such conflict of interest or pursuit by Fortress of a corporate opportunity independent of Mustang could expose us to claims by our investors and creditors and could harm our results of operations.

We may become involved in securities class action litigation that could divert management's attention and harm our business.

The stock markets have from time to time experienced significant price and volume fluctuations that have affected the market prices for the common stock of biotechnology and pharmaceutical companies. These broad market fluctuations may cause the market price of our stock to decline. In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because biotechnology and biopharmaceutical companies have experienced significant stock price volatility in recent years. We may become involved in this type of litigation in the future. Litigation often is expensive and diverts management's attention and resources, which could adversely affect our business.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate and executive office is located at 2 Gansevoort Street, 9th Floor, New York, NY 10014. We are not currently under a lease agreement at 2 Gansevoort Street. We believe that our existing facilities are adequate to meet our current requirements. We do not own any real property.

Item 3. Legal Proceedings

Otherwise as disclosed below, we are not involved in any litigation that we believe could have a material adverse effect on our financial position or results of operations. There is no action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of our executive officers, threatened against or affecting our company or our officers or directors in their capacities as such.

On January 15, 2016, Dr. Winson Tang ("Plaintiff") filed a Complaint against the Company in the Superior Court of the State of California, County of Los Angeles. Winson Tang v. Lindsay Rosenwald et al, Case No. BC607346. As amended, the complaint alleges that Dr. Tang was a third-party beneficiary of the Company's Exclusive License Agreement with COH and should be declared the owner of 15% of the Company's outstanding shares. After the Company and other defendants demurred, the Court sustained the demurrer and dismissed all claims without prejudice on September 13, 2016. Dr. Tang filed his second amended complaint on October 11, 2016, and the court again sustained the demurrer without prejudice, except for a claim for declaratory relief against the Company. Subsequently, Dr. Tang agreed to narrow his claims and drop certain defendants from the case. Dr. Tang filed his third amended complaint on January 17, 2017, alleging one claim for declaratory relief against the Company and two claims for breach of contract against certain other Defendants. Defendants filed their answer on February 23, 2017, denying Tan has any rights to recovery. The parties are proceeding with discovery, and the case is set for trial on November 6, 2017.

As of December 31, 2016, the Company has not accrued any losses in connection with this litigation as the Company believes that Plaintiff's claims are without merit and intends to vigorously defend this lawsuit. Even in the event of an adverse determination, Fortress and the Company intend to satisfy any judgment from sources other than newly issued shares of the Company to prevent dilution.

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

There is no established public trading market in our common stock. Our securities are not listed for trading on any national securities exchange nor are bid or asked quotations reported in any over-the-counter quotation service.

Equity Compensation Plans

We expect that in the future we will file a registration statement on Form S-8 under the Securities Act registering the common stock issued, issuable or reserved for issuance under our 2016 Plan. That registration statement will become effective immediately upon filing, and shares covered by that registration statement will thereupon be eligible for sale in the public markets, subject to grant of the underlying awards, vesting provisions and Rule 144 limitations applicable to our affiliates.

Holders

As of December 31, 2016 there were 18.7 million shares of capital stock outstanding, including vested warrants, which includes 1.0 million shares of Class A Common Stock outstanding, 250,000 shares of Class A Preferred Stock outstanding, and 15.1 million shares of common stock outstanding, which were held by approximately 488 record stockholders.

Dividends

We have never paid cash dividends on any of our capital stock and currently intend to retain our future earnings, if any, to fund the development and growth of our business.

Stock Not Registered Under the Securities Act; Rule 144 Eligibility

Our common stock has not been registered under the Securities Act. Accordingly, the shares of common stock issued and outstanding may not be resold absent registration under the Securities Act and applicable state securities laws or an available exemption thereunder.

Rule 144

Shares of our common stock that are restricted securities will be eligible for resale in compliance with Rule 144 ("Rule 144") or Rule 701 ("Rule 701") of the Securities Act, subject to the requirements described below. "Restricted Securities," as defined under Rule 144, were issued and sold by us in reliance on exemptions from the registration requirements of the Securities Act. These shares may be sold in the public market only if registered or if they qualify for an exemption from registration, such as Rule 144 or Rule 701. Below is a summary of the requirements for sales of our common stock pursuant to Rule 144, as in effect on the date of this Form 10-K.

Affiliates

Affiliates will be able to sell their shares under Rule 144 beginning 90 days after the effectiveness of our Form 10, subject to all other requirements of Rule 144. In general, under Rule 144, an affiliate would be entitled to sell within any three-month period a number of shares that does not exceed one percent of the number of shares of our common stock then outstanding. Sales under Rule 144 are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Persons who may be deemed to be our affiliates generally include individuals or entities that control, or are controlled by, or are under common control with, us and may include our directors and officers, as well as our significant stockholders.

Non-Affiliates

For a person who has not been deemed to have been one of our affiliates at any time during the 90 days preceding a sale, sales of our shares of common stock held longer than six months, but less than one year, will be subject only to the current public information requirement and can be sold under Rule 144 beginning 90 days after the effectiveness of our Form 10. A person who is not deemed to have been one of our affiliates at any time during the 90 days preceding a sale, and who has beneficially owned the shares proposed to be sold for at least one year, is entitled to sell the shares without complying with the manner of sale, public information, volume limitation or notice provisions of Rule 144 upon the effectiveness of our Form 10.

Rule 701

Rule 701 under the Securities Act, as in effect on the date of this Form 10-K, permits resale of shares in reliance upon Rule 144 but without compliance with certain restrictions of Rule 144, including the holding period requirement. Most of our employees, executive officers, directors or consultants who purchased shares under a written compensatory plan or contract may be entitled to rely on the resale provisions of Rule 701, but all holders of Rule 701 shares are required to wait until 90 days after the effective date of our Form 10 before selling their shares under Rule 701.

Securities Authorized for Issuance under Equity Compensation Plans

Subject to adjustment as provided in the 2016 Plan, the aggregate number of shares of our common stock reserved and available for issuance pursuant to awards granted under the 2016 Plan is 2,000,000.

Recent Sales of Unregistered Securities.

In September 2016, we entered into a Placement Agent Agreement with National Securities, Inc. ("NSC") relating to a private placement of Common Stock ("NSC Private Placement"). Pursuant to the Placement Agent Agreement, we agreed to pay the Placement Agent a cash fee of 10% of the gross proceeds from the offering and granted a warrant exercisable for shares of Common Stock equal to 10% of the aggregate number of shares of Common Stock sold in the offering (the "Placement Agent Warrants"). In addition, we adopted a form of unit purchase agreement for investors. The Common Stock and Warrants were sold in units, with each unit consisting of 10,000 shares of our Common Stock, and Warrants exercisable for 2,500 shares of Common Stock at an exercise price of $8.50 per share. The purchase price was $65,000 per Unit. The warrants have a five-year term and are only exercisable for cash.

As of December 31, 2016, we received gross proceeds of $39.1 million, before expenses, in connection with the NSC Private Placement, NSC received a fee of $3.9 million or approximately 10% of the gross proceeds as well as warrants equal to 10% of the common shares issued. We issued 6,014,874 unregistered shares of Common Stock and 1,503,717 warrants in connection with this transaction. In addition, the placement agent received 601,486 warrants or approximately 10% of the shares issued. The shares of Common Stock and Warrants were issued under an exemption from the Securities Act, provided by Regulation D promulgated thereunder.

In October 2016, we issued a warrant to NSC Biotech Venture Fund I to purchase 138,462 shares of Common Stock. The per share exercise price of the warrant is $0.0001 or par value of our shares and expires 10 years after the issuance date. The warrant was granted in connection the $3.6 million outstanding note to NSC Biotech Venture Fund I which we repaid in December of 2016.

In the final closing of the NSC Private Placement in January 2017, we issued 8,536,774 shares of common shares and warrants to purchase 2,134,193 shares of Common Stock to accredited investors, for aggregate gross proceeds of $55.5 million. Pursuant to the terms of the private placement, we paid a cash fee of $5.5 million and issued a warrant to purchase 853,667 shares of common shares to the NSC, who acted as the placement agent.

We expect to use the net proceeds from the above transaction primarily for general corporate purposes, which may include financing our growth, developing new or existing product candidates, and funding capital expenditures, acquisitions and investments.

Description of Registrant's Securities.

The following description summarizes the material terms of Mustang capital stock as of the date of this Form 10-K. Because it is only a summary, it does not contain all the information that may be important to you. For a complete description of our capital stock, you should refer to our certificate of incorporation and our bylaws.

The authorized capital stock of Mustang consists of (i) 50,000,000 shares of Common Stock, of which 1,000,000 have been designated as Class A Common Stock and the remainder are undesignated Common Stock and (ii) 2,000,000 shares of Preferred Stock, of which 250,000 have been designated as Class A Preferred Stock and the remainder are undesignated preferred stock. Only our 49,000,000 shares of undesignated common stock are being registered hereby.

The description of our Class A Common Stock in this item is for information purposes only. All of the Class A Common Stock has been issued to City of Hope. Class A Common Stock is identical to common stock other than as to voting rights, the election of directors for a definite period, and conversion rights. On any matter presented to our stockholders for their action or consideration at any meeting of our stockholders (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Class A Common Stock will be entitled to cast for each share of Class A Common Stock held by such holder as of the record date for determining stockholders entitled to vote on such matter, the number of votes that is equal to the number of shares of common stock into which the shares of Class A Common Stock are convertible into. Each share of Class A Common Stock is convertible, at the option of the holder, into one fully paid and nonassessable share of common stock, subject to certain adjustments. For a period of ten years from its issuance, the holders of the Class A Common Stock have the right to appoint one member of the board of directors of Mustang; to date, the holders of Class A Common Stock have not yet appointed such director.

The description of our undesignated Preferred Stock in this item is for information purposes only. The undesignated Preferred Stock may be issued from time to time in one or more series. Mustang Bio's Board of Directors is authorized to determine or alter the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions, if any), the redemption price or prices, the liquidation preferences and other designations, powers, preferences and relative, participating, optional or other special rights, if any, and the qualifications, limitations and restrictions granted to or imposed upon any wholly unissued series of Preferred Stock, and to fix the number of shares of any series of Preferred Stock (but not below the number of shares of any such series then outstanding).

The description of our Class A Preferred Stock in this item is for information purposes only. 250,000 shares of the Class A Preferred Stock have been issued to Fortress. Class A Preferred Stock is identical to common stock other than as to voting rights, conversion rights and the PIK Dividend right (as described below). On any matter presented to our stockholders for their action or consideration at any meeting of our stockholders (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Class A Preferred Stock will be entitled to cast for each share of Class A Preferred Stock held by such holder as of the record date for determining stockholders entitled to vote on such matter, the number of votes that is equal to one and one-tenth (1.1) times a fraction, the numerator of which is the sum of (A) the shares of outstanding Common Stock and (B) the whole shares of Common Stock in to which the shares of outstanding Class A Common Stock and the Class A Preferred Stock are convertible and the denominator of which is the number of shares of outstanding Class A Preferred Stock. Thus, the Class A Preferred Stock will at all times constitute a voting majority. Each share of Class A Preferred Stock is convertible, at the option of the holder, into one fully paid and nonassessable share of common stock, subject to certain adjustments.

The holders of the outstanding shares of Class A Preferred Stock shall receive on each March 13 (each a "PIK Dividend Payment Date") after the original issuance date of the Class A Preferred Stock until the date all outstanding Class A Preferred Stock is converted into Common Stock or redeemed (and the purchase price is paid in full), pro rata per share dividends paid in additional fully paid and nonassessable shares of Common Stock (such dividend being herein called "PIK Dividends") such that the aggregate number of shares of Common Stock issued pursuant to such PIK Dividend is equal to two and one-half percent (2.5%) of the Corporation's fully-diluted outstanding capitalization on the date that is one (1) business day prior to any PIK Dividend Payment Date ("PIK Record Date"). In the event the Class A Preferred Stock converts into Common Stock, the holders shall receive all PIK Dividends accrued through the date of such conversion.

If Mustang Bio at any time effects a subdivision of the outstanding common stock (or other capital stock or securities at the time issuable upon conversion of the Class A Common Stock or Class A Preferred Stock) by any stock split, stock dividend, recapitalization or otherwise, the applicable Conversion Ratio in effect immediately before that subdivision will be proportionately decreased so that the number of shares of common stock (or other capital stock or securities at the time issuable upon conversion of the Class A Common Stock or Class A Preferred Stock) issuable on conversion of each share of Class A Common Stock or Class A Preferred Stock will be increased in proportion to such increase in the aggregate number of shares of common stock (or other capital stock or securities at the time issuable upon conversion of the Class A Common Stock or Class A Preferred Stock) outstanding. If Mustang Bio at any time combines the outstanding shares of common stock, the applicable Conversion Ratio in effect immediately before the combination will be proportionately increased so that the number of shares of common stock (or other capital stock or securities at the time issuable upon conversion of the Class A Common Stock or Class A Preferred Stock) issuable on conversion of each share of Class A Common Stock or Class A Preferred Stock will be decreased in proportion to such decrease in the aggregate number of shares of common stock (or other capital stock or securities at the time issuable upon conversion of the Class A Common Stock or Class A Preferred Stock) outstanding. Additionally, if any reorganization, recapitalization, reclassification, consolidation or merger involving Mustang Bio occurs in which the common stock (but not the Class A Common Stock or Class A Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction involving the subdivision or combination of the common stock), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Class A Common Stock and Class A Preferred Stock becomes convertible into the kind and amount of securities, cash or other property which such Class A Common Stockholder or Class A Preferred Stockholder would have been entitled to receive had he or she converted the Class A Shares or Class A Preferred Shares immediately before said transaction. In such case, appropriate adjustment (as determined in good faith by the Board of Directors of Mustang Bio) will be made in the application of the provisions of Mustang Bio's Certificate of Incorporation, as amended, relating the subdivision or combination of the common stock with respect to the rights and interests thereafter of the holders of the Class A Common Stock and Class A Preferred Stock, such that the provisions set forth in of Mustang Bio's Amended and Restated Certificate of Incorporation relating to the subdivision or combination of the common stock (including the provisions with respect to changes in and other adjustments of the applicable Conversion Ratio) will thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Class A Common Stock and Class A Preferred Stock.

Other features of our capital stock include:

- *Dividend Rights*. The holders of outstanding shares of our capital stock, including Common Stock, Class A Common Stock and Class A Preferred Stock, are entitled to receive dividends out of funds legally available at the times and in the amounts that our board of directors may determine; provided, however, that no dividend or other distribution shall be paid, or declared and set apart for payment (other than dividends payable solely in capital stock on the capital stock of Mustang) on the shares of Common Stock until all PIK Dividends on the Class A Preferred Stock shall have been paid or declared and set apart for payment. All dividends are non-cumulative.

- *Voting Rights*. The holders of our Common Stock are entitled to one vote for each share of Common Stock held on all matters submitted to a vote of the stockholders, including the election of directors, except as to the Class A Directors during the Class A Director Period. Our certificate of incorporation and bylaws do not provide for cumulative voting rights.

- *No Preemptive or Similar Rights.* The holders of our Common Stock have no preemptive, conversion, or subscription rights, and there are no redemption or sinking fund provisions applicable to our Common Stock.

- *Right to Receive Liquidation Distributions.* Upon our liquidation, dissolution, or winding-up, the assets legally available for distribution to our stockholders would be distributable ratably among the holders of our common stock, including Class A Common Stock, outstanding at that time after payment of other claims of creditors, if any.

- *Fully Paid and Non-Assessable.* All of the outstanding shares of our capital stock, including Common Stock, Class A Common Stock and Class A Preferred Stock, are, and the shares of our Common Stock to be issued pursuant to this offering will be, duly issued, fully paid and non-assessable.

Item 6. Selected Financial Data

The following Statements of Operations data for the years ended December 31, 2016, and from March 13, 2015 (inception) to December 31, 2015, and Balance Sheet data as of December 31, 2016 and 2015, as set forth below are derived from our audited financial statements. This financial data should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Item 8. Financial Statements and Supplementary Data" contained elsewhere in this annual report on Form 10-K.

	For the year ended December 31, 2016	For the period from March 13, 2015 (inception) to December 31, 2015
Operating expenses:		
Research and development	$ 2,468	$ 1,707
Research and development – licenses acquired	6,079	2,337
General and administrative	2,816	254
Total operating expenses	11,363	4,298
Loss from operations	11,363	4,298
Other income (expense)		
Interest income	16	-
Interest expense - related party	(253)	(168)
Interest expense	(895)	-
Change in fair value of derivative warrant liabilities	(159)	-
Total other expense	(1,291)	(168)
Net Loss	**$ (12,654)**	**$ (4,466)**

Financial Condition:

	December 31,	
	2016	2015
Cash and cash equivalents	$ 27,499	$ -
Total assets	$ 27,499	$ -
Current liabilities	$ 3,223	$ 4,129
Stockholders' equity	$ 24,276	$ (4,129)

Item 7. Management's Discussion and Analysis of the Results of Operations

Forward-Looking Statements

Statements in the following discussion and throughout this Form 10-K that are not historical in nature are "forward-looking statements." You can identify forward-looking statements by the use of words such as "expect," "anticipate," "estimate," "may," "will," "should," "intend," "believe," and similar expressions. Although we believe the expectations reflected in these forward-looking statements are reasonable, such statements are inherently subject to risk and we can give no assurances that our expectations will prove to be correct. Actual results could differ from those described in this Form 10-K because of numerous factors, many of which are beyond our control. These factors include, without limitation, those described under Item 1A "Risk Factors." We undertake no obligation to update these forward-looking statements to reflect events or circumstances after the date of this Form 10-K or to reflect actual outcomes. Please see "Forward Looking Statements" at the beginning of this Form 10-K.

The following discussion of our financial condition and results of operations should be read in conjunction with our financial statements and the related notes thereto and other financial information appearing elsewhere in this Form 10-K. We undertake no obligation to update any forward looking statements in the discussion of our financial condition and results of operations to reflect events or circumstances after the date of this Form 10-K or to reflect actual outcomes.

Overview

We are a clinical-stage biopharmaceutical company focused on the development and commercialization of novel cancer immunotherapy products designed to utilize the power of the patient's own immune system to eliminate cancer cells. We aim to acquire rights to these technologies by licensing or otherwise acquiring an ownership interest in the technologies, funding their research and development and eventually either out-licensing or bringing the technologies to market. Currently we are developing our proprietary Chimeric Antigen Receptor (CAR) engineered T cells (CAR -T) technology, which we licensed from Dr. Stephen Forman's laboratory at the City of Hope National Medical Center (COH). CAR-T uses the patient's own T cells to engage and destroy specific tumors. The process involves selecting specific T-cell subtypes, genetically engineering them to express chimeric antigen T cell receptors and placing them back in the patient where they recognize and destroy cancer cells.

Our exclusive license and sponsored research agreement with Dr. Stephen Forman's laboratory at the COH encompasses specific chimeric T cell constructions and enabling process technologies including linker technology improvements. This agreement covers the discovery, manufacturing and clinical development of novel CAR-T cells along with specified rights to any and all inventions.

We are currently in Phase 1 trials treating glioblastoma patients. Dr. Forman's laboratory has developed a proprietary engineered CAR-T cells targeting Interleukin13 Receptor a2 or MB-101, which is overexpressed on the surface of glioblastoma cells. On December 29, 2016 an article in the New England Journal of Medicine reported that a patient enrolled in the Phase 1 glioblastoma trial treated with MB-101 achieved a complete response.

We have filed another IND for the treatment of patients with acute myeloid leukemia (AML). Dr. Forman's laboratory has developed a proprietary CAR-based targeting of CD123, which is overexpressed on the surface of many cells giving rise to hematologic malignancies, using engineered T cells for treatment of AML.

Additionally, under our sponsored preclinical research agreement with COH, the COH is developing additional CAR-T cell constructions targeting a number of tumor associated antigens specific for the variety of solid and hematological malignancies. The effectiveness of certain of these additional CAR-T cell constructs already has been demonstrated in preclinical studies with mouse xenograft models of specific human tumors. Under the sponsored research agreement, we have the right to license newly developed CAR-T constructs. We intend to further pursue preclinical development to validate and seek to establish the proprietary nature of the most promising CAR-T approaches coming out of the sponsored research program and, if successful, we would license and take forward into clinical studies.

To date, we have not received approval for the sale of our product candidates in any market and, therefore, have not generated any product sales from our product candidates. In addition, we have incurred substantial operating losses since our inception, and expect to continue to incur significant operating losses for the foreseeable future and may never become profitable. As of December 31, 2016, we have an accumulated deficit of $17.1 million.

In a private placement offering, which commenced September 30, 2016 and expired on January 31, 2017, we have raised gross proceeds of $94.6 million cumulatively in six separate closings. We paid National Securities Corporation ("NSC") a cash fee totaling $9.5 million and issued to them approximately 601,500 warrants to purchase our common stock, for their services as placement agent. Fortress owns 56.6% of National Holding Inc., the parent of NSC.

We are a majority controlled subsidiary of Fortress.

Mustang Bio, Inc. was incorporated in Delaware on March 13, 2015. Our executive offices are located at 2 Gansevoort Street, 9th Floor, New York, NY 10014. Our telephone number is (781) 652-4500 and our email address is ir@Mustangbio.com.

Critical Accounting Policies and Use of Estimates

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our financial statements. On an ongoing basis, we evaluate our estimates and judgments, including those related to accrued expenses and stock-based compensation. We base our estimates on historical experience, known trends and events and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our significant accounting policies are described in the notes to our financial statements appearing elsewhere in this Form 10-K.

Results of Operations

Comparison of the Year Ended December 31, 2016 and from March 13, 2015 (inception) to December 31, 2015

	For the year ended December 31, 2016	For the period from March 13, 2015 (inception) to December 31, 2015	Change $	Change %
Operating expenses:				
Research and development	$ 2,468	$ 1,707	$ 761	45%
Research and development – licenses acquired	6,079	2,337	3,742	160%
General and administrative	2,816	254	2,562	1009%
Total operating expenses	11,363	4,298	7,065	164%
Loss from operations	11,363	4,298	7,065	164%
Other income (expense)				
Interest income	16	-	16	100%
Interest expense - related party	(253)	(168)	(85)	51%
Interest expense	(895)	-	(895)	100%
Change in fair value of derivative warrant liabilities	(159)	-	(159)	100%
Total other expense	(1,291)	(168)	(1,123)	668%
Net Loss	**$ (12,654)**	**$ (4,466)**	**$ (8,188)**	183%

Research and Development Expenses

Research and development expenses primarily consist of personnel related expenses, including salaries, benefits, travel, and other related expenses, stock-based compensation, payments made to third parties for license and milestone costs related to in-licensed products and technology, payments made to third party contract research organizations for preclinical and clinical studies, investigative sites for clinical trials, consultants, the cost of acquiring and manufacturing clinical trial materials, costs associated with regulatory filings, laboratory costs and other supplies.

For the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, research and development expenses were approximately $2.5 million and $1.7 million, respectively. For the year ended December 31, 2016, $2.0 million relates to the quarterly expense related to our sponsored research agreement with COH and $250,000 of expense is related to our Management Services Agreement ("MSA") with Fortress. For the period March 13, 2015 (inception) through December 31, 2015, $1.5 million related to our sponsored research arrangement with the COH for the development of CAR-T and approximately $188,000 of expenses in connection with the MSA with Fortress.

For the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, research and development expenses - licenses acquired were approximately $6.1 million and $2.3 million, respectively. For the year ended December 31, 2016, approximately $1.7 million relates to 293,588 shares of our common stock issuable to the City of Hope in connection with our Original License agreement, which provided for COH maintaining a 10% ownership position up to a third party raise equal to net proceeds of $10.0 million and $4.4 million relates to the stock dividend to Fortress, in connection with their ownership of our Class A preferred stock, of 767,264 shares of our common stock representing 2.5% of the our fully diluted outstanding shares on the anniversary date of our formation. For the period March 13, 2015 (inception) through December 31, 2015, $2.0 million relates to an upfront fee in the acquisition of the exclusive license with COH, to acquire CAR-T, approximately $147,000 relates to the issuance of 1.0 million Class A shares of our common stock valued at $147,000 or $0.147 per share (also to City of Hope), and approximately $190,000 of expenses in connection with the Fortress annual equity fee.

We expect our research and development activities to increase as we develop our existing product candidates and potentially acquire new product candidates, reflecting increasing costs associated with the following:

- employee-related expenses, which include salaries and benefits, and rent expense;
- license fees and milestone payments related to in-licensed products and technology;
- expenses incurred under agreements with contract research organizations, investigative sites and consultants that conduct our clinical trials and our preclinical activities;
- the cost of acquiring and manufacturing clinical trial materials; and
- costs associated with non-clinical activities, and regulatory approvals.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries and related expenses, including stock-based compensation, for executives and other administrative personnel, recruitment expenses, professional fees and other corporate expenses, including investor relations, legal activities including patent fees, and facilities-related expenses.

For the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, general and administrative expenses were approximately $2.8 million and $254,000, respectively. For the year ended December 31, 2016, these fees consist of $1.3 million of legal fees, $0.9 million related to the issuance of founder shares, $290,000 of professional fees and $250,000 of expense in connection with the MSA with Fortress. For the period March 13, 2015 (inception) through December 31, 2015, general and administrative expenses were primarily related to $188,000 of expense in connection with the MSA with Fortress and approximately $66,000 for professional fees, primarily in connection with the acquisition and maintenance of our license.

We anticipate general and administrative expenses will increase in future periods, reflecting continued and increasing costs associated with:

- support of our expanded research and development activities;
- stock compensation granted to key employees and non-employees;
- support of business development activities; and
- increased professional fees and other costs associated with the regulatory requirements and increased compliance associated with being a public reporting company.

Other Income (Expenses)

Other income (expenses) consists primarily of interest expenses, interest income and the change in fair value of derivative warrant liabilities. Interest expense - related party was approximately $253,000 and $168,000 for the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, respectively. Interest expense, which represents interest on the NSC note, which was fully paid down before year-end, was approximately $895,000 and nil for the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, respectively. Change in fair value of derivative warrants was an expense of approximately $159,000 and nil for the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, respectively.

Liquidity and Capital Resources

We have incurred substantial operating losses since our inception and expect to continue to incur significant operating losses for the foreseeable future and may never become profitable. As of December 31, 2016, we had an accumulated deficit of $17.1 million.

In February 2015, Fortress closed a private placement of a promissory note for $10 million through National Securities Corporation (the “NSC Note”). Fortress used the proceeds from the NSC Note to acquire medical technologies, products and for activities related to the formation of its subsidiaries. The NSC Note matures 36 months after issuance, provided that during the first 24 months, Fortress can extend the maturity date by six months. No principal amount will be due for the first 24 months after issuance (or the first 30 months after issuance if the maturity date is extended). Thereafter, the NSC Note will be repaid at the rate of 1/12 of the principal amount per month for a period of 12 months. Interest on the NSC Note is 8%, payable quarterly during the first 24 months after issuance (or the first 30 months after issuance if the NSC Note is extended) and monthly during the last 12 months. National Securities Corporation (“NSC”), a wholly owned subsidiary of National Holdings, Inc., acted as the sole placement agent for the NSC Note.

Fortress used some of the proceeds from the NSC Note to acquire our COH license agreement, by transferring this indebtedness to us. Since the NSC Note allows Fortress to transfer a portion of the proceeds from the NSC Note to us, on July 5, 2016 we executed an identical NSC Note of $3.6 million in favor of NSC, representing a transfer of Fortress indebtedness. Further, in accordance with the terms of the NSC Note, we issued a warrant to NSC equal to twenty-five percent (25%) of the amount of NSC Note proceeds we received from Fortress divided by the lowest price at which we next sold common stock. The warrant issued has a term of 10 years and an exercise price equal to the par value of our common stock.

Our Intercompany Working Capital Promissory Note (“Fortress Note”), was approximately $320,000 at December 31, 2016. We have recorded interest expense of $253,000 and $168,000 related to this note in interest expense - due related party in our Statements of Operations for the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, respectively. On July 5, 2016, Fortress transferred $3.6 million of our indebtedness, with a debt discount related to our pro rata share of Fortress’ debt issuance costs of approximately $129,000, under our Fortress Note to NSC Note.

In addition, on September 30, 2016, we received gross proceeds of $12.4 million, before commissions and expenses of $1.4 million, in a private placement of shares and warrants. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a purchase price of $65,000 per unit. We issued 1,914,833 unregistered shares of Common Stock and 478,708 Warrants in this Offering. The Placement Agent received 191,483 Placement Agent Warrants.

On October 25, 2016, the Company closed a second round of financing totaling gross proceeds of $7.1 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $700,000 or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 1,090,580 unregistered shares of Common Stock and 272,645 warrants in connection with this transaction. In addition, the placement agent received 109,058 warrants or approximately 10% of the shares issued.

On November 30, 2016, the Company closed a third round of financing totaling gross proceeds of $12.4 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $1.2 million or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 1,900,215 unregistered shares of Common Stock and 475,053 warrants in connection with this transaction. In addition, the placement agent received 190,021 warrants or approximately 10% of the shares issued.

On December 12, 2016, the Company closed a fourth round of financing totaling gross proceeds of $3.1 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $310,000 or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 477,000 unregistered shares of Common Stock and 119,250 warrants in connection with this transaction. In addition, the placement agent received 47,700 warrants or approximately 10% of the shares issued.

On December 29, 2016, the Company closed a fifth round of financing totaling gross proceeds of $4.1 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $410,000 or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 632,246 unregistered shares of Common Stock and 158,062 warrants in connection with this transaction. In addition, the placement agent received 63,224 warrants or approximately 10% of the shares issued.

We expect to use the net proceeds from the above transaction primarily for general corporate purposes, which may include financing our growth, developing new or existing product candidates, and funding capital expenditures, acquisitions and investments. We currently anticipate that our cash balances at December 31, 2016, are sufficient to fund its anticipated operating cash requirements for approximately the next 12 months.

Cash Flows for the Year Ended December 31, 2016 and from March 13, 2015 (inception) to December 31, 2015

($ in thousands)	**For the year ended December 31, 2016**	**For the period from March 13, 2015 (inception) to December 31, 2015**
Statement of cash flows data:		
Total cash (used in)/provided by:		
Operating activities	$ (4,129)	$ (1,571)
Investing activities	-	(2,000)
Financing activities	31,628	3,571
Net increase in cash and cash equivalents	$ 27,499	$ -

Operating Activities

Net cash used in operating activities was $4.1 million for the year ended December 31, 2016, compared to $1.6 million for the period from March 13, 2015 (inception) to December 31, 2015. Net cash used in operating activities during the year ended December 31, 2016 was primarily due to approximately $12.7 million in net loss, partially offset by approximately $4.4 million of common shares issuable for Founder shares, $1.7 million related to the issuance of Class A common shares for license expenses, approximately $862,000 related to the issuance of common shares – Founders Agreement, approximately $763,000 in debt discount amortization, and approximately $663,000 of increase in operating liabilities. Net cash used in operating activities during the period from March 13, 2015 (inception) to December 31, 2015 was primarily due to a $4.5 million in net loss, partially offset by $2.0 million related to the acquired licenses and approximately $558,000 of increase in operating liabilities.

Investing Activities

There was no cash from investing activities for the year ended December 31, 2016. Net Cash used in investing activities was $2.0 million for the period from March 13, 2015 (inception) to December 31, 2015, representing the acquisition costs of acquired licenses.

Financing Activities

Net Cash provided by financing activities was $31.6 million for the year ended December 31, 2016, compared to $3.6 million for the period from March 13, 2015 (inception) to December 31, 2015. The issuance of common stock provided $35.0 million, net of fees, for the year ended December 31, 2016. The proceeds from Fortress Note were $2.0 million. During the year ended December 31, 2016, the $3.6 million NSC Note was paid off in full and the Fortress Note was paid down to approximately $320,000.

Contractual Obligations and Commitments

The following table reflects a summary of our estimates of future material contractual obligations as of December 31, 2016. Future events could cause actual payments to differ from these estimates.

	Total	Less than 1 year	1 – 3 years	3 – 5 years	More than 5 years
Contractual obligations:					
Notes payable and interest – related party (1)	$ 733,000	$ 733,000	—	—	—
Annual license fees and sponsored research (2)	6,680,000	2,060,000	4,620,000	—	—
Total contractual obligations	$ 7,413,000	$ 2,793,000	$ 4,620,000	$ —	$ —

(1) – Relates to interest and expenses due to Fortress
(2) – Relates to COH sponsored research arrangements and annual license fee

Recently Issued Accounting Pronouncements

See Note 2 to our Financial Statements

Off-Balance Sheet Arrangements

We are not party to any off-balance sheet transactions. We have no guarantees or obligations other than those which arise out of normal business operations.

Item 7A. Quantitative and Qualitative Disclosures About Market Risks

Market risk represents the risk of loss that may result from the change in value of financial instruments due to fluctuations in their market price. Market risk is inherent in all financial instruments. Market risk may be exacerbated in times of trading illiquidity when market participants refrain from transacting in normal quantities and/or at normal bid-offer spreads. Our exposure to market risk is directly related to derivatives, debt and equity linked instruments related to our financing activities.

Our assets and liabilities are denominated in U.S. dollars. Consequently, we have not considered it necessary to use foreign currency contracts or other derivative instruments to manage changes in currency rates. We do not now, nor do we plan to, use derivative financial instruments for speculative or trading purposes. However, these circumstances might change.

The primary quantifiable market risk associated with our financial instruments is sensitivity to changes in interest rates. Interest rate risk represents the potential loss from adverse changes in market interest rates. We use an interest rate sensitivity simulation to assess our interest rate risk exposure. For purposes of presenting the possible earnings effect of a hypothetical, adverse change in interest rates over the 12-month period from our reporting date, we assume that all interest rate sensitive financial instruments will be impacted by a hypothetical, immediate 100 basis point increase in interest rates as of the beginning of the period. The sensitivity is based upon the hypothetical assumption that all relevant types of interest rates that affect our results would increase instantaneously, simultaneously and to the same degree. We do not believe that our cash and equivalents have significant risk of default or illiquidity.

The sensitivity analyses of the interest rate sensitive financial instruments are hypothetical and should be used with caution. Changes in fair value based on a 1% or 2% variation in an estimate generally cannot be extrapolated because the relationship of the change in the estimate to the change in fair value may not be linear. Also, the effect of a variation in a particular estimate on the fair value of financial instruments is calculated independent of changes in any other estimate; in practice, changes in one factor may result in changes in another factor, which might magnify or counteract the sensitivities. In addition, the sensitivity analyses do not consider any action that we may take to mitigate the impact of any adverse changes in the key estimates.

Based on our analysis, as of December 31, 2016, the effect of a 100+/- basis point change in interest rates on the value of our financial instruments and the resultant effect on our net loss are considered immaterial.

Item 8. Financial Statements and Supplementary Data.

The information required by this Item is set forth in the consolidated financial statements and notes thereto beginning at page F-1 of this Annual Report on Form 10-K.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

Not applicable.

Item 9A. Controls and Procedures.

Disclosure Controls and Procedures

Controls and Procedures

Disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) are designed only to provide reasonable assurance that they will meet their objectives. Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness, as of December 31, 2015, of the design and operation of our disclosure controls and procedures, as such term is defined in Exchange Act Rules 13a-15(e) and 15d-15(e). Based on this evaluation, our principal executive officer and principal financial officer have concluded that, as of such date, our disclosure controls and procedures are effective to ensure that information required to be disclosed by us in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Internal Control over Financial Reporting

Management's Report on Internal Control over Financial Reporting.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Internal control over financial reporting refers to the process designed by, or under the supervision of, our principal executive officer and principal financial officer, and effected by our Board of Directors, management and other personnel, 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, and includes those policies and procedures that:

(1) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;

(2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that our receipts and expenditures are being made only in accordance with authorization of our management and directors; and

(3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisitions, use or disposition of our assets that could have a material effect on the financial statements.

Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2016. In making the assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework (2013).*

Based on our assessment, our management has concluded that, as of December 31, 2016, our internal controls over financial reporting were effective based upon those criteria.

Changes in Internal Controls over Financial Reporting.

There were no changes in our internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2017 Annual Meeting of Stockholders.

Item 11. Executive Compensation

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2017 Annual Meeting of Stockholders.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2017 Annual Meeting of Stockholders.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2017 Annual Meeting of Stockholders.

Item 14. Principal Accounting Fees and Services.

The information required by this Item is incorporated herein by reference from our Proxy Statement for our 2017 Annual Meeting of Stockholders.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) Financial Statements.

The following financial statements are filed as part of this Form 10-K:

(b) Exhibits.

Exhibit No.	Description
3.1	Amended and Restated Certificate of Incorporation of Mustang Bio, Inc. (formerly Mustang Therapeutics, Inc.), dated July 26, 2016. *
3.2	Bylaws of Mustang Bio, Inc. *
4.1	Specimen certificates evidencing shares of common stock, Class A common stock and Class A preferred stock. *
4.2	Form of warrant agreement. *
10.1	Second Amended and Restated Founders Agreement between Fortress Biotech, Inc. and Mustang Bio, Inc., dated July 26, 2016. *
10.2	Management Services Agreement between Fortress Biotech, Inc. and Mustang Bio, Inc., dated March 13, 2015. *
10.3	Future Advance Promissory Note to Fortress Biotech, Inc., dated May 5, 2016. *
10.4	Promissory Note to NSC Biotech Venture Fund I, LLC, dated July 5, 2016. *
10.5	Common Stock Warrant issued by Mustang Bio, Inc. to NSC Biotech Venture Fund I, LLC, dated July 5, 2016. *
10.6	License Agreement by and between Mustang Bio, Inc. and City of Hope, dated March 17, 2015. #
10.7	Sponsored Research Agreement by and between Mustang Bio, Inc. and City of Hope, dated March 17, 2015. *
10.8	Mustang Bio, Inc. 2016 Incentive Plan. †*
10.9	Non-Employee Directors Compensation Plan. †*
10.10	Agreement with Chord Advisors, LLC, dated April 8, 2016. *
10.11	Agreement with Caribe BioAdvisors, LLC, dated January 1, 2017.
10.12	Exclusive License Agreement with The Regents of the University of California, dated March 17, 2017. ^
10.13	Exclusive License Agreement – IV/ICV with City of Hope, dated February 17, 2017. ^
10.14	Amended and Restated Exclusive License Agreement – CD123 with City of Hope, dated February 17, 2017. ^
10.15	Amended and Restated Exclusive License Agreement – IL-13 with City of Hope, dated February 17, 2017. ^
10.16	Amended and Restated Exclusive License Agreement – Spacer with City of Hope, dated February 17, 2017. ^
24.1	Power of Attorney (included on signature page).
31.1	Certification of Chairman and Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Interim Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chairman and Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Interim Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following financial information from Mustang Bio, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2016, formatted in Extensible Business Reporting Language (XBRL): (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statements of Operations, (iii) the Condensed Consolidated Statement of Stockholders' Equity, (iv) the Condensed Consolidated Statements of Cash Flows, and (v) Notes to the Condensed Consolidated (filed herewith).

Confidential treatment has been granted with respect to omitted portions of this exhibit.
^ Confidential treatment has been requested with respect to omitted portions of this exhibit.
† Indicates management contract or compensatory plan or arrangement.
* Previously Filed.

Item 16. Form 10-K Summary.

None.

INDEX TO FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

Board of Directors and Stockholders
Mustang Bio, Inc.
New York, New York

We have audited the accompanying balance sheet of Mustang Bio, Inc. as of December 31, 2016 and the related statements of operations, stockholders' equity (deficit), and cash flows for the year ended December 31, 2016. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States) and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, 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. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of Mustang Bio, Inc. at December 31, 2016, and the results of its operations and its cash flows for the year ended December 31, 2016**,** in conformity with accounting principles generally accepted in the United States of America.

/s/ BDO USA, LLP

Boston, Massachusetts
March 30, 2017

Report of Independent Registered Public Accounting Firm
To the Board of Directors and Stockholders of
Mustang Bio, Inc.
New York, NY

We have audited the accompanying balance sheet of **Mustang Bio, Inc.** (the "Company") as of December 31, 2015, and the related statements of operations, stockholders' deficit, and cash flows for the period from March 13, 2015 (inception) through December 31, 2015. The Company's management is responsible for these financial statements. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of**Mustang Bio, Inc.** as of December 31, 2015, and the results of its operations and cash flows for the period from March 13, 2015 (inception) through December 31, 2015, in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has incurred recurring losses from operations, and is dependent on additional financing to fund operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are described in Note 1 to the financial statements. The financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

/s/ Mayer Hoffman McCann P.C.

Orange County, California
July 27, 2016

MUSTANG BIO, INC.
BALANCE SHEETS
($ in thousands, except per share amounts)

	December 31, 2016	December 31, 2015
ASSETS		
Current Assets:		
Cash	$ 27,499	$ -
Total current assets	27,499	-
Total Assets	**$ 27,499**	**$ -**
LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)		
Current Liabilities:		
Accounts payable and accrued expenses	$ 683	$ 15
Common shares issuable liability	1,682	-
Accrued expenses - related party	125	375
Accrued interest - related party	413	168
Notes payable - related party	320	3,571
Total current liabilities	3,223	4,129
Total Liabilities	**3,223**	**4,129**
Commitments and Contingencies		
Stockholders' Equity (Deficit)		
Preferred stock ($0.0001 par value), 2,000,000 shares authorized, 250,000 and 0 shares of Class A preferred stock issued and outstanding as of December 31, 2016 and December 31, 2015, respectively	-	-
Common Stock ($0.0001 par value), 50,000,000 shares authorized		
Class A common shares, 1,000,000 shares issued and outstanding as of December 31, 2016 and December 31, 2015, respectively	-	-
Class B common shares, 0 and 7,000,000 shares issued and outstanding as of December 31, 2016 and December 31, 2015, respectively	-	1
Common shares, 15,165,244 and 2,000,000 shares issued and outstanding as of December 31, 2016 and December 31, 2015, respectively	2	-
Common stock issuable, 767,264 and 250,000 shares as of December 31, 2016 and December 31, 2015, respectively	4,396	190
Additional paid-in capital	36,998	146
Accumulated deficit	(17,120)	(4,466)
Total Stockholders' Equity (Deficit)	**24,276**	**(4,129)**
Total Liabilities and Stockholders' Equity	**$ 27,499**	**$ -**

The accompanying notes are an integral part of these financial statements.

MUSTANG BIO, INC.
STATEMENTS OF OPERATIONS
($ in thousands, except per share amounts)

	For the year ended December 31, 2016	For the period from March 13, 2015 (inception) to December 31, 2015
Operating expenses:		
Research and development	$ 2,468	$ 1,707
Research and development – licenses acquired	6,079	2,337
General and administrative	2,816	254
Total operating expenses	11,363	4,298
Loss from operations	11,363	4,298
Other income (expense)		
Interest income	16	-
Interest expense - related party	(253)	(168)
Interest expense	(895)	-
Change in fair value of derivative warrant liabilities	(159)	-
Total other expense	(1,291)	(168)
Net Loss	**$ (12,654)**	**$ (4,466)**
Net loss per common share outstanding, basic and diluted	$ (1.15)	$ (0.45)
Weighted average number of common shares outstanding, basic and diluted	11,026,666	9,993,197

The accompanying notes are an integral part of these financial statements.

MUSTANG BIO, INC.
STATEMENTS OF STOCKHOLDERS' EQUITY (DEFICIT)
($ in thousands, except per share amounts)

	Class A Preferred Stock		Class A Common Shares		Class B Common Shares		Common Shares		Common Stock	Additional Paid-in	Accumulated	Total Stockholders'
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Issuable	Capital	Deficit	Equity (Deficit)
Issuance of Class B common shares to Fortress on March 13, 2015	-	$ -	-	$ -	7,000,000	$ 1	-	$ -	$ -	$ (1)	$ -	$ -
Issuance of common shares to Fortress on March 13, 2015	-	-	-	-	-	-	2,000,000	-	-	-	-	-
Issuance of Class A common shares for license expenses	-	-	1,000,000	-	-	-	-	-	-	147	-	147
Common stock issuable - Founders Agreement	-	-	-	-	-	-	-	-	190	-	-	190
Net loss	-	-	-	-	-	-	-	-	-	-	(4,466)	(4,466)
Balances at December 31, 2015	**-**	**$ -**	**1,000,000**	**$ -**	**7,000,000**	**$ 1**	**2,000,000**	**$ -**	**$ 190**	**$ 146**	**$ (4,466)**	**$ (4,129)**
Issuance of common shares - Founders Agreement	-	-	-	-	250,000	-	150,370	-	(190)	1,052	-	862
Common stock issuable – Founders Agreement	-	-	-	-	-	-	-	-	4,396	-	-	4,396
Issuance of common shares and warrants for cash	-	-	-	-	-	-	6,014,874	1	-	39,097	-	39,098
Offering cost	-	-	-	-	-	-	-	-	-	(4,090)	-	(4,090)
Issuance of warrants - NSC Note										793		793
Exchange of Class A preferred stock and common stock (see Note 8)	250,000	-	-	-	(7,250,000)	(1)	7,000,000	1	-	-	-	-
Net loss	-	-	-	-	-	-	-	-	-	-	(12,654)	(12,654)
Balances at December 31, 2016	**250,000**	**$ -**	**1,000,000**	**$ -**	**-**	**$ -**	**15,165,244**	**$ 2**	**$ 4,396**	**$ 36,998**	**$ (17,120)**	**$ 24,276**

The accompanying notes are an integral part of these financial statements.

MUSTANG BIO, INC.
STATEMENTS OF CASH FLOWS
($ in thousands)

	For the year ended December 31, 2016	For the period from March 13, 2015 (inception) to December 31, 2015
Cash flows from operating activities:		
Net loss	$ (12,654)	$ (4,466)
Common shares issuable for license acquired	1,682	147
Research and development-licenses acquired, expensed	-	2,000
Issuance of common shares - Founders Agreement	862	-
Common shares issuable for Founders Agreement	4,396	190
Debt discount amortization	763	-
Change in fair value of derivative warrant liabilities	159	-
Adjustments to reconcile net loss to net cash used in operating activities:		
Changes in operating assets and liabilities:		
Accounts payable and accrued expenses	668	15
Accrued expenses - related party	(250)	375
Accrued interest - related party	245	168
Net cash used in operating activities	(4,129)	(1,571)
Cash Flows from Investing Activities:		
Purchase of research and development licenses	-	(2,000)
Net cash used in investing activities	-	(2,000)
Cash Flows from Financing Activities:		
Proceeds from Fortress Note	2,221	3,571
Payment of Fortress Note	(2,001)	-
Payment of NSC Note	(3,600)	-
Proceeds from issuance of common stock and warrants, net of offering cost of $4,090 and $0, respectively	35,008	-
Net cash provided by financing activities	31,628	3,571
Net change in cash	27,499	-
Cash, beginning of the period	-	-
Cash, end of the period	**$ 27,499**	**$ -**
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 140	$ -
Supplemental disclosure of noncash investing and financing activities:		
Issuance of common shares - Founders Agreement	$ 190	$ 1
Warrant liability associated with NCS Note	$ 793	$ -
Exchange of Class A preferred stock and common stock	$ 1	$ -
Transfer from Fortress of NSC Note, net of discount of $129 and $0, respectively	3,471	-

The accompanying notes are an integral part of these financial statements.

Note 1 — Organization, Plan of Business Operations

Mustang Bio, Inc. (the "Company" or "Mustang") was incorporated in Delaware on March 13, 2015, as a majority-owned subsidiary of Fortress Biotech, Inc. ("Fortress" or "Parent") and commenced its principal operations on March 13, 2015. Mustang was formed as a clinical-stage biopharmaceutical company focused on the acquisition, development and commercialization of novel cancer immunotherapy products designed to utilize the power of the patient's own immune system to eliminate cancer cells. The Company may acquire rights to these technologies by licensing the rights or otherwise acquiring an ownership interest in the technologies, funding their research and development and eventually either out-licensing or bringing the technologies to market.

Chimeric Antigen Receptor (CAR) engineered T-cells (CAR-T) technology

In March 2015, Mustang entered into an exclusive license and sponsored research agreement with the City of Hope National Medical Center ("COH"), collectively referred to as "COH Agreements", to acquire CAR-T. CAR-T uses the patient's own T-cells to engage and destroy specific tumors. The process involves selecting specific T-cell subtypes, genetically engineering them to express chimeric antigen T cell receptors and placing them back in the patient where they recognize and destroy cancer cells. The exclusive license agreement covers the discovery, manufacture and clinical development of novel CAR-T along with specified rights to any and all inventions.

On February 17, 2017, the Company and COH amended and restated the Original Agreement in connection with the covered patents by entering into three separate amended and restated exclusive license agreements, one relating to CD123, one relating to IL-13 and one relating to the spacer technology, that amended the Original Agreement in certain other respects, and collectively replace the Original Agreement in its entirety. The total potential consideration payable to COH by the Company, in equity or cash, did not, in the aggregate, change materially from the Original Agreement.

Note 2 — Significant Accounting Policies

Basis of Presentation

The Company's financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). The Company has no subsidiaries.

The financial statements may not be indicative of future performance and may not reflect what the Company's results of operations, financial position, and cash flows would have been had Mustang operated as an independent entity. Certain estimates have been made to provide financial statements for stand-alone reporting purposes. All inter-company transactions between Fortress and Mustang are classified as due to related party in the financial statements. The Company believes that the assumptions underlying the financial statements are reasonable.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers all short-term investments with an original maturity of three months or less when purchased to be cash equivalents. There were no cash equivalents at December 31, 2016 and 2015.

Research and Development Costs

Research and development costs are expensed as incurred. Advance payments for goods and services that will be used in future research and development activities are expensed when the activity has been performed or when the goods have been received rather than when the payment is made. Upfront and milestone payments due to third parties that perform research and development services on the Company's behalf will be expensed as services are rendered or when the milestone is achieved.

Research and development costs primarily consist of personnel related expenses, including salaries, benefits, travel, and other related expenses, stock-based compensation, payments made to third parties for license and milestone costs related to in-licensed products and technology, payments made to third party contract research organizations for preclinical and clinical studies, investigative sites for clinical trials, consultants, the cost of acquiring and manufacturing clinical trial materials, costs associated with regulatory filings, laboratory costs and other supplies.

Costs incurred in obtaining technology licenses are charged to research and development expense if the technology licensed has not reached commercial feasibility and has no alternative future use. The licenses purchased by the Company require substantial completion of research and development, regulatory and marketing approval efforts in order to reach commercial feasibility and has no alternative future use. Accordingly, the total purchase price for the licenses acquired is reflected as research and development – licenses acquired on the Company's Statements of Operations.

Annual Equity Fee

Prior to the July 2016 amendment to the Founder's Agreement, Fortress was entitled to an annual fee on each anniversary date equal to 2.5% of the fully diluted outstanding equity of the Company, payable in Mustang Class B Common Stock ("Annual Equity Fee"). The annual equity fee was part of consideration payable for formation of the Company and identification of certain assets.

The Company recorded the Annual Equity Fee in connection with the Founders Agreement with Mustang as contingent consideration. Contingent consideration is recorded when probable and reasonably estimable. The Company's future share prices cannot be estimated due to the nature of its assets and the Company's stage of development. Due to these uncertainties, the Company concluded that it could not reasonably estimate the contingent consideration until shares were actually issued on March 13, 2016. Because the issuance of shares on March 13, 2016 occurred prior to the issuance of the December 31, 2015 financial statements, the Company recorded approximately $190,000 in research and development - licenses acquired during the period from March 13, 2015 (inception) through December 31, 2015. Pursuant to the terms of the Mustang Founders Agreement, as amended in July 2016, this equity fee is no longer payable.

Annual Stock Dividend

In July 2016, in connection with the Amended and Restated Articles of Incorporation, the Company issued 250,000 Class A preferred shares to Fortress. The Class A preferred shares entitle the holder to a stock dividend equal to 2.5% of the fully diluted outstanding equity of the Company.

The Company recorded the Annual Stock Dividend due Fortress as contingent consideration. Contingent consideration is recorded when probable and reasonably estimable. The Company's future share prices cannot be estimated due to the nature of its assets and the Company's stage of development. Due to these uncertainties, the Company concluded that it could not reasonably estimate the contingent consideration until shares were actually issued on March 13, 2017. Because the issuance of shares on March 13, 2017 occurred prior to the issuance of the December 31, 2016 financial statements, the Company recorded approximately $4.4 million in research and development - licenses acquired for the year ended December 31, 2016.

Fair Value Measurement

The Company follows accounting guidance on fair value measurements for financial assets and liabilities measured at fair value on a recurring basis. Under the accounting guidance, fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. 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 a liability.

The accounting guidance requires fair value measurements be classified and disclosed in one of the following three categories:

Level 1: Quoted prices in active markets for identical assets or liabilities.

Level 2: Observable inputs other than Level 1 prices, for similar assets or liabilities that are directly or indirectly observable in the marketplace.

Level 3: Unobservable inputs which are supported by little or no market activity and that are financial instruments whose values are determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant judgment or estimation.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. Assets and liabilities measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. The Company's assessment of the significance of a particular input to the fair value measurement in its entirety requires management to make judgments and consider factors specific to the asset or liability.

Valuation of Warrant Related to NSC Note

In accordance with ASC 815, the Company classified the fair value of the warrant ("Contingently Issuable Warrants") that may have been granted in connection with the NSC Note transferred to the Company in various tranches from July 5, 2016 to October 25, 2016 as a derivative liability as there was a potential that the Company would not have a sufficient number of authorized common shares available to settle this instrument. The Company valued these Contingently Issuable Warrants using an option pricing model (which approximates intrinsic value) with estimates for an expected dividend yield, a risk-free interest rate, and expected volatility together with management's estimate of the probability of issuance of the Contingently Issuable Warrants. At each reporting period, as long as the Contingently Issuable Warrants were potentially issuable and there was a potential for an insufficient number of authorized shares available to settle the Contingently Issuable Warrants, the Contingently Issuable Warrants should be revalued and any difference from the previous valuation date would be recognized as a change in fair value in the Company's Statement of Operations.

Reclassified Equity Contracts

The Company accounts for potential shares that can be converted to common stock and if converted, will be in excess of authorized shares, as a liability that is recorded on the balance sheet (at fair value) only until the authorized number of shares is increased (at which time the whole liability will be re-measured, with changes in value included in other income/(expense), and then reclassified to additional paid-in capital). The value of the liability was computed by valuing the securities that management believed were most likely to be converted. This liability is revalued at each reporting date with any change in value included in other income / (expense) until such time as enough shares are authorized to cover all potentially convertible instruments.

Income Taxes

For purposes of these financial statements, the Company's income tax expense and deferred tax balances have been recorded as if it filed tax returns on a stand-alone basis separate from Fortress.

Deferred tax assets and liabilities are determined based on the difference between the financial statement and tax bases of assets and liabilities measured at the enacted tax rates in effect for the year in which these items are expected to reverse. Deferred tax assets are reduced by valuation allowances if, based on the consideration of all available evidence, it is more likely than not that some portion or all of the deferred tax asset will not be realized.

Net Loss per Share

Net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Since dividends are declared, paid and set aside among the holders of shares of common stock and Class A Common Stock pro-rata on an as-if-converted basis, the two-class method of computing net loss per share is not required. Diluted net loss per share does not reflect the effect of shares of common stock to be issued upon the exercise of warrants or outstanding Class A preferred shares, as their inclusion would be anti-dilutive. There are 2,243,664 warrants outstanding and 250,000 Class A preferred shares outstanding as of December 31, 2016 and none outstanding as of December 31, 2015, respectively which are excluded from the computations of net loss per share.

Stock-Based Compensation Expenses

The Company expenses stock-based compensation to employees over the requisite service period based on the estimated grant-date fair value of the awards and forfeiture rates. For stock-based compensation awards to non-employees, the Company re-measures the fair value of the non-employee awards at each reporting period prior to vesting and finally at the vesting date of the award. Changes in the estimated fair value of these non-employee awards are recognized as stock-based compensation expense in the period of change.

Recently Issued Accounting Standards

In January 2017, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2017-04, *Intangibles - Goodwill and Other* (Topic 350): Simplifying the Test for Goodwill Impairment ("ASU 2017-04"), which eliminates the second step of the previous FASB guidance for testing goodwill for impairment and is intended to reduce cost and complexity of goodwill impairment testing. The amendments in this ASU modify the concept of impairment from the condition that exists when the carrying amount of goodwill exceeds its implied fair value to the condition that exists when the carrying amount of a reporting unit exceeds its fair value. After determining if the carrying amount of a reporting unit exceeds its fair value, the entity should take an impairment charge of the same amount to the goodwill for that reporting unit, not to exceed the total goodwill amount for that reporting unit. This eliminates the second step of calculating the implied fair value of goodwill by assigning the fair value of a reporting unit to all of its assets and liabilities as if that reporting unit had been acquired in a business combination. ASU 2017-04 is effective for annual periods beginning after December 15, 2019, including interim periods within those annual periods. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently evaluating the impact of adopting the new guidance on its financial statements.

In January 2017, FASB issued ASU 2017-01, "*Business Combinations (Topic 805) Clarifying the Definition of a Business*". The amendments in this Update is to clarify the definition of a business with the objective of adding guidance to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The definition of a business affects many areas of accounting including acquisitions, disposals, goodwill, and consolidation. The guidance is effective for annual periods beginning after December 15, 2017, including interim periods within those periods. The Company is currently evaluating the impact of adopting this guidance.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows - Classification of Certain Cash Receipts and Cash Payments*, which addresses eight specific cash flow issues with the objective of reducing the existing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The standard is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. Early adoption is permitted, including adoption in an interim period. The Company is currently in the process of evaluating the impact of this new pronouncement on its statements of cash flows.

In April 2016, the FASB issued ASU 2016-10, *Revenue from Contracts with Customer* ("ASU 2016-10"). The new guidance is an update to ASC 606 and provides clarity on: identifying performance obligations and licensing implementation. For public companies, ASU 2016-10 is effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2016. The Company is currently evaluating the impact that ASU 2016-10 will have on its financial statements.

In March 2016, the FASB issued ASU 2016-09 *Compensation-Stock Compensation (Topic 718), Improvements to Employee Share-Based Payment Accounting* ("ASU 2016-09") . Under ASU 2016-09, companies will no longer record excess tax benefits and certain tax deficiencies in additional paid-in capital ("APIC"). Instead, they will record all excess tax benefits and tax deficiencies as income tax expense or benefit in the income statement and the APIC pools will be eliminated. In addition, ASU 2016-09 eliminates the requirement that excess tax benefits be realized before companies can recognize them. ASU 2016-09 also requires companies to present excess tax benefits as an operating activity on the statement of cash flows rather than as a financing activity. Furthermore, ASU 2016-09 will increase the amount an employer can withhold to cover income taxes on awards and still qualify for the exception to liability classification for shares used to satisfy the employer's statutory income tax withholding obligation. An employer with a statutory income tax withholding obligation will now be allowed to withhold shares with a fair value up to the amount of taxes owed using the maximum statutory tax rate in the employee's applicable jurisdiction(s). ASU 2016-09 requires a company to classify the cash paid to a tax authority when shares are withheld to satisfy its statutory income tax withholding obligation as a financing activity on the statement of cash flows. Under current GAAP, it was not specified how these cash flows should be classified. In addition, companies will now have to elect whether to account for forfeitures on share-based payments by (1) recognizing forfeitures of awards as they occur or (2) estimating the number of awards expected to be forfeited and adjusting the estimate when it is likely to change, as is currently required. The Amendments of this ASU are effective for reporting periods beginning after December 15, 2016, with early adoption permitted but all of the guidance must be adopted in the same period. The Company is currently assessing the impact the adoption of ASU 2016-09 will have on its financial statements.

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)* which supersedes FASB Accounting Standards Codification ("ASC") Topic 840, *Leases (Topic 840)* and provides principles for the recognition, measurement, presentation and disclosure of leases for both lessees and lessors. The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight-line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than twelve months regardless of classification. Leases with a term of twelve months or less will be accounted for similar to existing guidance for operating leases. The standard is effective for annual and interim periods beginning after December 15, 2018, with early adoption permitted upon issuance. The Company is currently evaluating the method of adoption and the impact of adopting ASU 2016-02 on its financial statements. When adopted, the Company does not expect this guidance to have a material impact on its financial statements.

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*. ASU 2016-01 requires equity investments to be measured at fair value with changes in fair value recognized in net income; simplifies the impairment assessment of equity investments without readily determinable fair values by requiring a qualitative assessment to identify impairment; eliminates the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost on the balance sheet; requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; requires an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments; requires separate presentation of financial assets and financial liabilities by measurement category and form of financial assets on the balance sheet or the accompanying notes to the financial statements and clarifies that an entity should evaluate the need for a valuation allowance on a deferred tax asset related to available-for-sale securities in combination with the entity's other deferred tax assets. ASU 2016-01 is effective for financial statements issued for fiscal years beginning after December 15, 2017, and interim periods within those fiscal years. The Company is currently evaluating the impact that ASU 2016-01 will have on its balance sheet or financial statement disclosures. When adopted, the Company does not expect this guidance to have a material impact on its financial statements.

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes* ("ASU 2015-17"). ASU 2015-17 requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position. ASU 2015-17 is effective for financial statements issued for fiscal years beginning after December 15, 2016, and interim periods within those fiscal years. The Company is currently evaluating the impact that ASU 2015-17 will have on its balance sheet or financial statement disclosures. When adopted, the Company does not expect this guidance to have a material impact on its financial statements.

Recently Adopted Accounting Pronouncements

In November 2015, the FASB issued ASU 2015-17, *Balance Sheet Classification of Deferred Taxes*, which requires that deferred tax liabilities and assets be classified as noncurrent in a classified statement of financial position to simplify the presentation of deferred income taxes. The standard is effective prospectively for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2017, with early adoption permitted. As of December 31, 2016, the Company elected to early adopt the pronouncement on a prospective basis. Adoption of this amendment did not have an effect on the Company's financial position or results of operations, and prior periods were not retrospectively adjusted.

In April 2015, the FASB issued ASU 2015-03, *Simplifying the Presentation of Debt Issuance Costs*("ASU 2015-03"), which requires debt issuance costs to be presented in the balance sheet as a direct deduction from the carrying value of the associated debt liability, consistent with the presentation of a debt discount. ASU 2015-03 is effective for the interim and annual periods ending after December 15, 2015, with early adoption permitted. The Company adopted ASU 2015-03 on March 31, 2015. The adoption did not have an impact on the financial statements or related disclosures.

In August 2014, the FASB issued ASU 2014-15, *Presentation of Financial Statements-Going Concern* ("ASU 2014-15"), which defines management's responsibility to assess an entity's ability to continue as a going concern, and to provide related footnote disclosures if there is substantial doubt about its ability to continue as a going concern. ASU 2014-15 is effective for annual reporting periods ending after December 15, 2016, with early adoption permitted. The Company adopted ASU 2014-15 in the fourth quarter of 2016 and its adoption did not have an impact on the financial statements or related disclosures.

Note 3 – COH Agreements

The CAR-T Agreements

City of Hope

On March 17, 2015, the Company entered into an exclusive license agreement with COH to acquire intellectual property rights pertaining to CAR-T (the "Original Agreement"). Pursuant to the agreement, the Company paid COH an upfront fee of $2.0 million, in April 2015 (included in research and development-licenses acquired expen*ses* on the Statements of Operations), and granted COH 1,000,000 shares of Mustang's Class A Common Stock, representing 10% ownership of Mustang, as of such date. The Company valued the stock grant to COH utilizing a discounted cash flow model to determine the weighted market value of invested capital, discounted by a lack of marketability of 44.8% and a weighted average cost of capital of 30%, resulting in a $0.147 value per share or approximately $147,000 and is included in *research and development-licenses acquired expenses* on the Statements of Operations.

In February 2017, COH was granted 293,588 additional shares of the Company's Common Stock, the shares were valued utilizing a weighted market model at approximately $5.73 per share or approximately $1.7 million as of October 2016, the effective date of the grant. The price per share was derived by utilizing the Option Pricing Method for allocating the enterprise value to the differing security holders, using a volatility of 77.0%, no discount for lack of marketability and a risk free rate of return of 1.93%. This additional grant was made pursuant to the terms of the agreement, which maintained COH ownership at 10% until the Company raised net proceeds of $10.0 million from third party investors. At December 31, 2016, since the Company did not have sufficient authorized Class A Common Shares available to issue this grant it was recorded on the balance sheet as a current liability in common share issuable. In February 2017, COH executed a waiver and acknowledgement agreement permitting issuance of the COH Anti-Dilution Shares in the form of Mustang Common Stock rather than Class A Common Stock as originally required, and such shares were issued.

In addition, the Company entered into a sponsored research agreement with COH in which the Company will fund continued research in the amount of $2.0 million per year, payable in four equal installments, over the next five years. For the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, the Company recorded $2.0 million and $1.5 million, respectively, in research and development expenses on the Statements of Operation.

In December 2016, the Company entered into two consulting agreements, one with two City of Hope scientists, whereby effective January 1, 2017, in exchange for services provided to the Company each consultant shall be paid $60,000 per year, paid quarterly, through January 31, 2019. Further each consultant has agreed to serve on our Scientific Advisory Board on an as needed basis, and will receive additional compensation for those services. In addition, for services provided during the fourth quarter of 2016, pursuant to the terms of the agreement each consultant earned $60,000, which was paid in the first quarter of 2017. As of December 31, 2016, the City of Hope owns 1,000,000 Class A common shares representing approximately 6.1% of ownership and has the right to appoint a director to our Board of Directors. At December 30, 2015 the City of Hope owned approximately 10% of the Company.

Fortress

From March 13, 2015 (inception) through December 31, 2015, in accordance with the Original Founders Agreement, the Company issued 250,000 shares of Common Stock to Fortress at $0.147 per share or $36,750 in connection with the equity fee payable to Fortress under the original Founders Agreement. This amount was recorded in research and development licenses acquired expenses on the Statement of Operations for the period from March 13, 2015 (inception) through December 31, 2015. For the period ended December 31, 2016 the Company recorded in research and development licenses acquired expenses on the Statement of Operations $4.4 million or 767,264 shares of common stock at $5.73 in connection with the stock dividend payable in to Fortress pursuant to the terms of the Class A preferred shares.

Note 4 – Related Party Agreements

Founders Agreement and Management Services Agreement with Fortress

Effective March 13, 2015, the Company entered a Founders Agreement with Fortress, which was amended and restated on May 17, 2016 and again on July 26, 2016 (the "Mustang Founders Agreement"). The Mustang Founders Agreement provides that, in exchange for the time and capital expended in the formation of Mustang and the identification of specific assets the acquisition of which result in the formation of a viable emerging growth life science company, Fortress loaned $2.0 million, representing the up-front fee required to acquire the Company's license agreement with COH. The Mustang Founders Agreement has a term of 15 years, which upon expiration automatically renews for successive one-year periods unless terminated by Fortress and the Company or a Change in Control (as defined in the Mustang Founders Agreement) occurs. Concurrently with the second amendment on July 26, 2016, to the Mustang Founders Agreement, Fortress entered into an Exchange Agreement whereby Fortress exchanged its 7.25 million Class B Common shares for 7.0 million common shares and 250,000 Class A Preferred shares. Class A Preferred Stock is identical to common stock other than as to voting rights, conversion rights and the PIK Dividend right (as described below). Each share of Class A Preferred Stock will be entitled to vote the number of votes that is equal to one and one-tenth (1.1) times a fraction, the numerator of which is the sum of (A) the shares of outstanding Mustang common stock and (B) the whole shares of Mustang common stock into which the shares of outstanding Class A Common Stock and Class A Preferred Stock are convertible and the denominator of which is the number of shares of outstanding Class A Preferred Stock. Thus, the Class A Preferred Stock will at all times constitute a voting majority. Each share of Class A Preferred Stock is convertible, at Fortress' option, into one fully paid and nonassessable share of Mustang common stock, subject to certain adjustments. As holders of Class A Preferred Stock, Fortress will receive on each March 13 (each a "PIK Dividend Payment Date") until the date all outstanding Class A Preferred Stock is converted into common stock or redeemed (and the purchase price is paid in full), pro rata per share dividends paid in additional fully paid and nonassessable shares of common stock ("PIK Dividends") such that the aggregate number of shares of common stock issued pursuant to such PIK Dividend is equal to two and one-half percent (2.5%) of Mustang's fully-diluted outstanding capitalization on the date that is one (1) business day prior to any PIK Dividend Payment Date.

As additional consideration under the Mustang Founders Agreement, Mustang will also: (i) pay an equity fee in shares of common stock, payable within five (5) business days of the closing of any equity or debt financing for Mustang or any of its respective subsidiaries that occurs after the effective date of the Mustang Founders Agreement and ending on the date when Fortress no longer has majority voting control in the Company's voting equity, equal to two and one-half (2.5%) of the gross amount of any such equity or debt financing; and (ii) pay a cash fee equal to four and one-half percent (4.5%) of the Company's annual net sales, payable on an annual basis, within ninety (90) days of the end of each calendar year. In the event of a Change in Control, the Company will pay a one-time change in control fee equal to five (5x) times the product of (A) net sales for the twelve (12) months immediately preceding the change in control and (B) four and one-half percent (4.5%).

On March 13, 2016, pursuant to the then in effect Mustang Founders Agreement, on the anniversary date of the Founders' Agreement, the Company issued 250,000 shares of its Class B Common Stock to Fortress representing 2.5% of the fully diluted outstanding shares of the Company. Pursuant to the terms of the Mustang Founders Agreement, as amended in July 2016, this equity fee is no longer payable.

Effective as of March 13, 2015, the Company entered into a Management Services Agreement (the "MSA") with Fortress. Pursuant to the terms of the MSA, for a period of five years, Fortress will render advisory and consulting services to the Company. Services provided under the MSA may include, without limitation, (i) advice and assistance concerning any and all aspects of the Company's operations, clinical trials, financial planning and strategic transactions and financings and (ii) conducting relations on behalf of the Company with accountants, attorneys, financial advisors and other professionals (collectively, the "Services"). The Company is obligated to utilize clinical research services, medical education, communication and marketing services and investor relations/public relation services of companies or individuals designated by Fortress, provided those services are offered at market prices. However, the Company is not obligated to take or act upon any advice rendered from Fortress and Fortress shall not be liable for any of its actions or inactions based upon their advice. Fortress and its affiliates, including all members of the Company's Board of Directors, have been contractually exempt from fiduciary duties to the Company relating to corporate opportunities. In consideration for the Services, the Company will pay Fortress an annual consulting fee of $0.5 million (the "Annual Consulting Fee"), payable in advance in equal quarterly installments on the first business day of each calendar quarter in each year, provided, however, that such Annual Consulting Fee shall be increased to $1.0 million for each calendar year in which the Company has net assets in excess of $100 million at the beginning of the calendar year. For the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, the Company recorded approximately $500,000 and $375,000, respectively, as expense related to this agreement.

Consulting Agreement with Chord Advisors, LLC ("Chord")

On April 8, 2016, the Company entered into a full service consulting agreement with Chord to provide advisory accounting services to the Company. Under the terms of the agreement, the Company paid Chord up to $5,000 per month to perform back office accounting functions, accounting analysis and financial reporting prior to the Company's filing of its Registration Statement on Form 10 on July 27, 2016, and $7,500 per month following that date. Either party upon 30-days written notice can terminate the agreement. In addition to these services, Mr. Horin, a Managing Partner of Chord, serves as the Company's Interim Chief Financial Officer. Chord also provides advisory accounting services to Fortress under a separate agreement. For the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, the Company recognized approximately $48,000 and nil, respectively, in general and administrative expenses on the Statements of Operations, related to this agreement.

Fortress Note

The Company has a working capital promissory note with Fortress (see Note 5).

NSC Note and Financings

In September 2016, Fortress acquired through a tender offer 56.6% of National Holdings, Inc. ("National" or "NHLD"). The Company holds a $3.6 million note in favor of NSC Biotech Venture Fund I, LLC for which National Securities, Inc. ("NSC") a subsidiary of National received a 10% placement fee upon issuance of the Note to Fortress (see Note 5).

In September 2016, the Company entered into a Placement Agent Agreement with National in connection with financing in which the Company agreed to pay NSC a cash fee of 10.0% of the gross proceeds and warrants equal to 25% of the total offering (see Note 8). For the year ended December 31, 2016 the Company paid NSC $3.6 million and issued warrants for 601,486 shares.

Note 5 - Notes Payable

Fortress Note

In 2015, the Company and Fortress entered into an Intercompany Working Capital Promissory Note ("Fortress Note"), in which Fortress agreed to provide a working capital line of credit to the Company from inception through a third party financing. The Fortress Note is due on demand and accrues interest of 8% per year, with interest due and principal due upon demand. This line of credit can be pre-paid at any time in cash or through Fortress' indebtedness to NSC Biotech Venture Fund I, LLC ("NSC Note") or other similar indebtedness.

At December 31, 2016, the Fortress Note was approximately $320,000 and was recorded as note payable - related party on the Balance Sheets. The Company recognized approximately $253,000 and $168,000 in interest expense at 8% on the Statements of Operations for the year ended December 31, 2016 and for the period from March 13, 2015 (inception) to December 31, 2015, respectively. The Fortress Note was paid in full during the first quarter of 2017.

NSC Note

In March 2015, Fortress closed a private placement of a promissory note for $10 million through National Securities Corporation ("NSC"). Fortress used the proceeds from the NSC Note to acquire medical technologies and products. The note matures in 36 months, provided that during the first 24 months Fortress can extend the maturity date by six months. No principal amount will be due for the first 24 months (or the first 30 months if the maturity date is extended). Thereafter, the note will be repaid at the rate of 1/12 of the principal amount per month for a period of 12 months. Interest on the note is 8% payable quarterly during the first 24 months (or the first 30 months if the note is extended) and monthly during the last 12 months. NSC, is a wholly owned subsidiary of National Holdings, Inc., acted as the sole placement agent for the NSC Note.

The NSC Note was amended and restated on July 29, 2015, to provide that any time a Fortress Company receives from Fortress any proceeds from the NSC Note, Fortress may, in its sole discretion, cause the Fortress Company to issue to NSC Biotech Venture Fund I LLC a new promissory note (the "Amended NSC Note") on identical terms as the NSC Note (giving effect to the passage of time with respect to maturity). The Amended NSC Note will equal the dollar amount of the Fortress Company's share of the NSC Note and reduce the Fortress' obligations under the NSC Note by such amount. Fortress will guarantee the Amended NSC Note until the Company completes an initial public offering.

If the Company has an initial public offering and raises sufficient equity capital so that it has cash equal to five times the amount of the portion of the proceeds of the NSC Note transferred to it, then NSC will receive a warrant to purchase the Company's stock equal to 25% of the outstanding note divided by the lowest price the Company sells its equity in its first third party financing. The warrants issued will have a term of 10 years and an exercise price equal to the par value of the Company's common stock.

On July 5, 2016, Fortress transferred $3.6 million of the Company's indebtedness, with a debt discount related to the Company's pro rata share of Fortress' debt issuance costs of approximately $129,000, under the Fortress Note to its NSC Note as well as a contingently issuable warrant equal to 25% of the transferred indebtedness. For the year ended December 31, 2016, the Company recorded costs of approximately $763,000 related to the amortization of the debt discount and approximately $140,000 of interest expense at 8%, both recorded in interest expense on the Statements of Operations. The effective interest rate of the NSC Note approximates 23.1%. The detachable Warrant issued in connection with NSC Note in the amount of approximately $634,000 was recorded as a debt discount based on its fair value (see Note 6).

Pursuant to the terms of the Company's $3.6 million Amended NSC Note, upon the closing of the Company's second round of financing on October 25, 2016, the Company issued to National warrants for 138,462 relating to its aggregate gross proceeds from its third party offerings exceeding five times the value of the debt. Upon the issuance of the warrant Fortress was removed as the guarantor on the note. In December 2016, the NSC Note was fully paid off.

The following table summarizes NSC Note activities for the year ended December 31, 2016 ($ in thousands).

	NSC Note Payable	Discount	NSC Note Payable, Net
January 1, 2016 balance	$ -	$ -	$ -
Proceeds from issuance of NSC Note	3,600	(129)	3,471
Issuance of warrants in conjunction with NSC debt	-	(634)	(634)
Amortization of debt discount	-	192	192
Payoff of note	(3,600)	571	(3,029)
December 31, 2016 balance	$ -	$ -	$ -

Note 6 - Fair Value Measurement

Financial instruments measured at fair value are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

The following table sets forth the changes in the estimated fair value for our Level 3 classified derivative contingently issuable warrant liability ($ in thousands):

	Contingently Issuable Warrants
Fair value, January 1, 2016	**$ -**
Warrant liability associated with NCS debt	634
Change in fair value	159
Issuance of 138,462 warrants with a par value strike price	(793)
Fair value, December 31, 2016	**$ -**

If the Company has an initial public offering and raises sufficient equity capital so that it has cash equal to five times the amount of the portion of the proceeds of the NSC Note transferred to it, then NSC will receive a warrant to purchase the Company's stock equal to 25% of the outstanding note divided by the lowest price the Company sells its equity in its first third party financing. The warrants issued will have a term of 10 years and an exercise price equal to the par value of the Company's common stock. In accordance with ASC 815, the Company classifies the fair value of the warrant that may have been granted in connection with the NSC Note transferred to the Company as a derivative liability as there was a potential that the Company would not have a sufficient number of authorized common shares available to settle this instrument. The Company valued this warrant using a Black-Scholes model and used estimates for an expected dividend yield, a risk-free interest rate, and expected volatility together with management's estimate of the probability of issuance of the warrant. At each reporting period, as long as the warrant was potentially issuable and there was a potential for an insufficient number of authorized shares available to settle the warrant, the warrant was revalued and any difference from the previous valuation date would be recognized as a change in fair value in the Company's Statements of Operations.

In the fourth quarter of 2016, due to the financings described in Note 8, sufficient equity capital was raised so that the Company had cash equal to five times the amount of the portion of the proceeds of the NSC Note transferred to it. The Company issued 138,462 warrants with an exercise price of par value and a ten year term.

The Company's liability for common shares issuable liability was measured using significant unobservable (Level 3) inputs.

The following table represents the activity for the Company's liability for common shares issuable for the year ended December 31, 2016 ($ in thousands):

	Year Ended December 31, 2016
Beginning Balance	$ -
Liabilities reclassified	1,682
Change in value of liabilities reclassified	-
Liabilities reclassified to equity	-
Ending Balance	$ 1,682

Note 7 – Commitments and Contingencies

Leases

The Company is not a party to any leases for office space or equipment.

Litigation

On January 15, 2016, Dr. Winson Tang ("Plaintiff") filed a Complaint against the Company in the Superior Court of the State of California, County of Los Angeles. Winson Tang v. Lindsay Rosenwald et al, Case No. BC607346. As amended, the complaint alleges that Dr. Tang was a third-party beneficiary of the Company's Exclusive License Agreement with COH and should be declared the owner of 15% of the Company's outstanding shares. After the Company and other defendants demurred, the Court sustained the demurrer and dismissed all claims without prejudice on September 13, 2016. Dr. Tang filed his second amended complaint on October 11, 2016, and the court again sustained the demurrer without prejudice, except for a claim for declaratory relief against the Company. Subsequently, Dr. Tang agreed to narrow his claims and drop certain defendants from the case. Dr. Tang filed his third amended complaint on January 17, 2017, alleging one claim for declaratory relief against the Company and two claims for breach of contract against certain other Defendants. Defendants filed their answer on February 23, 2017, denying Tan has any rights to recovery. The parties are proceeding with discovery, and the case is set for trial on November 6, 2017.

As of December 31, 2016, the Company has not accrued any losses in connection with this litigation as the Company believes that Plaintiff's claims are without merit and intends to vigorously defend this lawsuit. Even in the event of an adverse determination, Fortress and the Company intend to satisfy any judgment from sources other than newly issued shares of the Company to prevent dilution.

Note 8 — Stockholders' Equity (Deficit)

Common Stock

The Company, in accordance with its certificate of incorporation, as amended in July 2016, which was retroactively applied, is authorized to issue 50,000,000 common shares with a par value of $0.0001 per share, of which 1,000,000 shares are designated as "Class A Common Stock" and 15,000,000 shares are designated as "Class B Common Stock".

In connection with the Company's formation, Fortress subscribed for 7,000,000 shares of the Class B Common Stock and 2,000,000 shares of the Company's Common Stock, pursuant to the Founders Agreement. Fortress paid the par value of $900 in 2016. The fair value of the Company's common shares approximated par value as no licenses had been transferred at that time. Dividends, if and when declared, are to be distributed pro-rata to the Class A, B and Common Stock holders.

The holders of Common Stock are entitled to one vote per share of Common Stock held. The holders of Class A Common Stock are entitled to the number of votes equal to the number of whole shares of Common Stock into which the shares of Class A Common Stock held by such holder are convertible and for a period of ten years from its issuance, the holders of the Class A Common Stock have the right to appoint one member of the board of directors of Mustang; to date, the holders of Class A Common Stock have not yet appointed such director.

The Class B Common Stockholders are entitled, for each share of Class B Common Stock held, to a number of votes equal to 1.1 times a fraction, the numerator of which is the sum of (A) the shares of outstanding Common Stock and (B) the whole shares of Common Stock into which the shares of outstanding Class A Common Stock and the Class B Common Stock are convertible and the denominator of which is the number of shares of outstanding Class B common shares.

Pursuant to the Founders Agreement, on March 13, 2016 the Company issued 250,000 shares of Class B Common Stock to Fortress, which equaled 2.5% of the fully diluted outstanding equity of Mustang at the time of issuance for the annual equity fee (see Note 4).

Class A Common Shares

On March 17, 2015, the Company entered into an exclusive license agreement with COH to acquire intellectual property rights pertaining to CAR-T. Pursuant to the agreement, the Company paid COH an upfront fee of $2.0 million, in April 2015 (included in *research and development-licenses acquired expenses* on the Statements of Operations), and granted 1,000,000 shares of Mustang's Class A Common Stock, representing 10% ownership of Mustang, as of such date. As of December 31, 2016, the City of Hope owns 1,000,000 Class A common shares.

Exchange of Class B Common Shares and Class A Preferred Shares

In accordance with the amended and restated certificate of incorporation filed on July 27, 2016, the Company issued 250,000 shares of Class A Preferred Stock, 7.0 million common shares and cancelled 7.2 million Class B common shares. This exchange was recorded as an equity transaction and therefore no gain or loss was recorded.

Offerings and Issuances of Common Stock and Warrants

In September 2016, the Company entered into a Placement Agent Agreement with NSC relating to the Company's offering of shares of Common Stock in a private placement. Pursuant to the Placement Agent Agreement, the Company agreed to pay the Placement Agent a cash fee of 10.0% of the gross proceeds from the offering and granted a warrant exercisable for shares of Common Stock equal to 10% of the aggregate number of shares of Common Stock sold in the offering (the "Placement Agent Warrants"). In addition, the Company and the investors entered into a unit purchase agreement (the "Unit Purchase Agreement"). The Common Stock and Warrants were sold in units, with each unit consisting of 10,000 shares of the Company's Common Stock, and Warrants exercisable for 2,500 shares of Common Stock at an exercise price of $8.50 per share. The purchase price was $65,000 per Unit. The warrants have a five-year term and are only exercisable for cash.

On September 30, 2016, the Company had an initial closing in which the Company issued 1,914,833 unregistered shares of Common Stock and 478,708 Warrants. NSC received 191,483 Placement Agent Warrants. For the year ended December 31, 2016, the Company received gross proceeds of $12.4 million, before commissions and expenses of $1.4 million, in the offering of which $1.3 million was the fee paid to NSC.

On October 25, 2016, the Company closed a second round of financing totaling gross proceeds of $7.1 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $710,000 or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 1,090,580 unregistered shares of Common Stock and 272,645 warrants in connection with this transaction. In addition, the placement agent received 109,058 warrants or approximately 10% of the shares issued.

On November 30, 2016, the Company closed a third round of financing totaling gross proceeds of $12.4 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $1.2 million or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 1,900,215 unregistered shares of Common Stock and 475,053 warrants in connection with this transaction. In addition, the placement agent received 190,021 warrants or approximately 10% of the shares issued.

On December 12, 2016, the Company closed a fourth round of financing totaling gross proceeds of $3.1 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $310,000 or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 477,000 unregistered shares of Common Stock and 119,250 warrants in connection with this transaction. In addition, the placement agent received 47,700 warrants or approximately 10% of the shares issued.

On December 29, 2016, the Company closed a fifth round of financing totaling gross proceeds of $4.1 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $410,000 or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 632,246 unregistered shares of Common Stock and 158,062 warrants in connection with this transaction. In addition, the placement agent received 63,224 warrants or approximately 10% of the shares issued.

Pursuant to the Founders Agreement, the Company issued 150,370 shares to Fortress, representing 2.5% of the aggregate number of shares of common stock issued in the offerings noted above. For the year ended December 31, 2016, the Company recorded expense of approximately $862,000, related to this issuance (based upon the fair value of common shares on the date of issuance), which is included in general and administrative expenses in the Company's Statements of Operations.

Class A Preferred Shares

Pursuant to the Company's Amended and Restated Articles of Incorporation, filed on July 26, 2016, Class B Common Stock was eliminated and 2,000,000 shares of Preferred Stock were authorized, of which 250,000 have been designated as Class A Preferred Stock and the remainder are undesignated preferred stock. The Class A Preferred Stock is identical to undesignated Common Stock other than as to voting rights, conversion rights, and the PIK Dividend right (as described below). The undesignated Preferred Stock may be issued from time to time in one or more series. The Company's Board of Directors is authorized to determine or alter the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions, if any), the redemption price or prices, the liquidation preferences and other designations, powers, preferences and relative, participating, optional or other special rights, if any, and the qualifications, limitations and restrictions granted to or imposed upon any wholly unissued series of Preferred Stock, and to fix the number of shares of any series of Preferred Stock (but not below the number of shares of any such series then outstanding).

The holders of the outstanding shares of Class A Preferred Stock shall receive on each March 13 (each a "PIK Dividend Payment Date") after the original issuance date of the Class A Preferred Stock until the date all outstanding Class A Preferred Stock is converted into Common Stock or redeemed (and the purchase price is paid in full), pro rata per share dividends paid in additional fully paid and nonassessable shares of Common Stock (such dividend being herein called "PIK Dividends") such that the aggregate number of shares of Common Stock issued pursuant to such PIK Dividend is equal to 2.5% of the Corporation's fully-diluted outstanding capitalization on the date that is one business day prior to any PIK Dividend Payment Date ("PIK Record Date"). In the event the Class A Preferred Stock converts into Common Stock, the holders shall receive all PIK Dividends accrued through the date of such conversion. No dividend or other distribution shall be paid, or declared and set apart for payment (other than dividends payable solely in capital stock on the capital stock of the Company) on the shares of Common Stock until all PIK Dividends on the Class A Preferred Stock shall have been paid or declared and set apart for payment. All dividends are non-cumulative.

On any matter presented to the stockholders of the Company for their action or consideration at any meeting of stockholders of the Company (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Class A Preferred Stock shall be entitled to cast for each share of Class A Preferred Stock held by such holder as of the record date for determining stockholders entitled to vote on such matter, the number of votes that is equal to one and one-tenth (1.1) times a fraction, the numerator of which is the sum of (A) the number of shares of outstanding Common Stock and (B) the whole shares of Common Stock in to which the shares of outstanding Class A Common Stock and the Class A Preferred Stock are convertible, and the denominator of which is number of shares of outstanding Class A Preferred Stock (the "Class A Preferred Stock Ratio"). Thus, the Class A Preferred Stock will at all times constitute a voting majority.

Each share of Class A Preferred Stock is convertible, at the option of the holder, into one fully paid and nonassessable share of Common Stock (the "Conversion Ratio"), subject to certain adjustments. If the Company, at any time effects a subdivision or combination of the outstanding Common Stock (by any stock split, stock dividend, recapitalization, reverse stock split or otherwise), the applicable Conversion Ratio in effect immediately before that subdivision is proportionately decreased or increased, as applicable, so that the number of shares of Common Stock issuable on conversion of each share of Class A Preferred Stock shall be increased or decreased, a applicable, in proportion to such increase or decrease in the aggregate number of shares of Common Stock outstanding. Additionally, if any reorganization, recapitalization, reclassification, consolidation or merger involving the Company occurs in which the Common Stock (but not the Class A Preferred Stock) is converted into or exchanged for securities, cash or other property, then each share of Class A Preferred Stock becomes convertible into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Company issuable upon conversion of one share of the Class A Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction.

Warrants

A summary of warrant activities for year ended December 31, 2016 is presented below:

	Warrants	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in years)
Outstanding as of January 1, 2016	-	$ -	-
Granted	2,243,664	7.98	-
Outstanding as of December 31, 2016	2,243,664	$ 7.98	5.16

Upon the exercise of warrants, the Company will issue new shares of Common Stock.

Note 9 – Income Taxes

For financial reporting purposes, the Company calculated income tax provision and deferred income tax balances as if it was a separate entity and had filed its own separate tax return under Sub-chapter C of the Internal Revenue Code.

A reconciliation of the statutory U.S. federal rate to the Company's effective tax rate is as follows:

	For the years ended December 31,	
	2016	2015
Statutory federal income tax rate	35%	35%
State taxes, net of federal tax benefit	13%	5%
Non-deductible items	(3)%	(2)%
Credits	-	1%
Rate change	1%	-
Other	1%	-
Change in valuation allowance	(47)%	(39)%
Income taxes provision (benefit)	-	-

The components of the net deferred tax asset as of December 31, 2016 and 2015 are the following ($ in thousands):

	As of December 31,	
	2016	2015
Deferred tax assets:		
Net operating loss carryovers	$ 3,310	$ 893
Stock compensation and other	301	-
Change in warrant liability	76	-
Amortization of license	3,848	815
Start up costs	13	-
Tax credits	89	38
Total deferred tax assets	7,637	1,746
Less valuation allowance	(7,637)	(1,746)
Deferred tax assets, net of valuation allowance	$ -	$ -

The Company has determined, based upon available evidence, that it is more likely than not that the net deferred tax asset will not be realized and, accordingly, has provided a full valuation allowance against its net deferred tax asset. A valuation allowance of approximately $7.6 million and $1.7 million, respectively, was recorded for the year ended December 31, 2016 and the period from March 13, 2015 (inception) through December 31, 2015.

As of December 31, 2016, the Company had federal and state net operating loss carryforwards of approximately $7.3 million and $13.5 million, respectively. The federal and state net operating loss carryforwards will begin to expire, if not utilized, by 2035 and 2025, respectively. Utilization of the net operating loss carryforward may be subject to an annual limitation due to the ownership change limitations provided by Section 382 of the Internal Revenue Code of 1986, as amended and similar state provisions.

There are no significant items determined to be unrecognized tax benefits taken or expected to be taken in a tax return, in accordance with ASC 740 "Income Taxes" ("ASC 740"), which clarifies the accounting for uncertainty in income taxes recognized in the financial statements, that have been recorded on the Company's financial statements for the period ended December 31, 2016. The Company does not anticipate a material change to unrecognized tax benefits in the next twelve months.

Additionally, ASC 740 provides guidance on the recognition of interest and penalties related to income taxes. There were no interest or penalties related to income taxes that have been accrued or recognized as of and for the period ended December 31, 2016.

The federal and state tax returns for the periods ended December 31, 2016 and 2015 are currently open for examination under the applicable federal and state income tax statues of limitations.

Note 10 – Quarterly Financial Date (unaudited)

(in thousands, except per share data)	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2016				
Total Revenue	$ -	$ -	$ -	$ -
Operating expenses	$ 822	$ 1,040	$ 1,670	$ 7,831
Other income/(expense)	$ (81)	$ (93)	$ (200)	$ (917)
Net loss	$ (903)	$ (1,133)	$ (1,870)	$ (8,748)
Basic and diluted net loss per common share	$ (0.09)	$ (0.11)	$ (0.19)	$ (0.64)
2015				
Total Revenue	$ -	$ -	$ -	$ -
Operating expenses	$ 2,260	$ 537	$ 658	$ 843
Other income/(expense)	$ -	$ (42)	$ (58)	$ (68)
Net loss	$ (2,260)	$ (579)	$ (716)	$ (911)
Basic and diluted net loss per common share	$ (0.23)	$ (0.06)	$ (0.07)	$ (0.09)

Note 11 – Subsequent Events

Private Placement Financing

On January 31, 2017, the Company closed the final round of financing totaling gross proceeds of $55.5 million, before expenses, in a private placement of shares and warrants for which NSC was the placement agent and received a fee of $5.5 million or approximately 10% of the gross proceeds. The financing involved the sale of units, each consisting of 10,000 shares of common stock and a warrant exercisable for 2,500 shares of common stock at an exercise price of $8.50 per share, for a total price of $65,000 per unit. The warrants have a five-year term and are only exercisable for cash. The Company issued 8,536,774 unregistered shares of Common Stock and 2,134,193 warrants in connection with this transaction. In addition, the placement agent received 853,667 warrants or approximately 10% of the shares issued.

COH Issuance of Shares

In February 2017, the Company issued 293,588 shares of the Company's Common stock valued at $5.73 per share or $1.7 million. This grant was made pursuant to the Amended License Agreement, which provides for the issuance of the additional shares in the Company's Common Stock rather than Class A common shares. The issuance of the shares was effective October 2016.

City of Hope Agreements

On February 17, 2017, the Company and COH amended and restated the Original Agreement in connection with the covered patents by entering into three separate amended and restated exclusive license agreements, one relating to CD123, one relating to IL-13 and one relating to the spacer technology, that amended the Original Agreement in certain other respects, and collectively replace the Original Agreement in its entirety. The total potential consideration payable to COH by the Company, in equity or cash, did not, in the aggregate, change materially from the Original Agreement.

A&R CD123 License

On February 17, 2017, the Company entered into an Amended and Restated Exclusive License Agreement with COH to acquire intellectual property rights pertaining to CD123 patent rights (the "A&R CD123 License"). Pursuant to the A&R CD123 License, the Company and COH acknowledge that an upfront fee has already been paid under the Original Agreement. In addition, an annual maintenance fee will continue to apply. COH is eligible to receive milestone payments totaling approximately $14.5 million upon and subject to the achievement of certain milestones. Royalty payments in the mid-single digits are due on net sales of licensed products. The Company is obligated to pay COH a percentage of certain revenues received in connection with a sublicense in the mid-teens to mid-thirties, depending on the timing of the sublicense in the development of any product. In addition, equity grants made under the Original Agreement were acknowledged, and the anti-dilution provisions of the Original Agreement were carried forward.

A&R IL-13 License

On February 17, 2017, the Company entered into an Amended and Restated Exclusive License Agreement with COH to acquire intellectual property rights pertaining to IL-13 patent rights (the "A&R IL-13 License"). Pursuant to the A&R IL-13 License, the Company and COH acknowledge that an upfront fee has already been paid under the Original Agreement. In addition, an annual maintenance fee will continue to apply. COH is eligible to receive milestone payments totaling approximately $14.5 million upon and subject to the achievement of certain milestones. Royalty payments in the mid-single digits are due on net sales of licensed products. The Company is obligated to pay COH a percentage of certain revenues received in connection with a sublicense in the mid-teens to mid-thirties, depending on the timing of the sublicense in the development of any product. In addition, equity grants made under the Original Agreement were acknowledged, and the anti-dilution provisions of the Original Agreement were carried forward.

A&R Spacer License

On February 17, 2017, the Company entered into an Amended and Restated Exclusive License Agreement with COH to acquire intellectual property rights pertaining to Spacer patent rights (the "A&R Spacer License"). Pursuant to the A&R Spacer License, the Company and COH acknowledged that an upfront fee has already been paid under the Original Agreement. In addition, an annual maintenance fee will continue to apply. No royalties are due if the Spacer technology is used in conjunction with a CD123 CAR or an IL-13 CAR, and royalty payments in the low single digits are due on net sales of licensed products if the Spacer technology is used in conjunction with other intellectual property. The Company is obligated to pay COH a percentage of certain revenues received in connection with a sublicense in the mid-thirties. In addition, equity grants made under the Original Agreement were acknowledged, and the anti-dilution provisions of the Original Agreement were carried forward.

IV/ICV Agreement

On February 17, 2017, the Company entered into an exclusive license agreement (the "IV/ICV Agreement") with COH to acquire intellectual property rights in patent applications related to the intraventricular and intracerebroventricular methods of delivering T cells that express CARs. Pursuant to the IV/ICV Agreement, the Company will pay COH an upfront fee of $125,000 within 30 days of the Effective Date, in addition to an annual maintenance fee. COH is eligible to receive a milestone payments totaling approximately $125,000, upon and subject to the achievement of a milestone. Royalty payments in the low single digits are due on net sales of license products and license services.

License with University of California

On March 17, 2017 the Company entered into an exclusive license agreement with the Regents of the University of California ("UCLA License") to acquire intellectual property rights in patent applications related to the engineered anti-prostatestem cell antigen antibodies for cancer targeting and detection. Pursuant to the Agreement, the Company will pay UCLA an upfront fee of $200,000 within 30 days of March 17, 2017 in addition to an annual maintenance fee. Additional payments are due for the achievement of certain development milestones as well as royalty payments in the mid-single digits are due on net sales of licensed products

Related Party Transactions

Advisory Agreement with Caribe BioAdvisors, LLC

As of December 30, 2016, the Board of the Company by unanimous written consent, approved and authorized the execution of an advisory agreement dated January 1, 2017 (the "Advisory Agreement") with Caribe BioAdvisors, LLC (the "Advisor"), owned by Michael S. Weiss ("Mr. Weiss"), the Chairman of the Board, to provide the board advisory services of Mr. Weiss as Chairman of the Board. Pursuant to the Advisory Agreement, the Advisor will be paid an annual cash fee of $60,000, in addition to any and all annual equity incentive grants paid to members of the Board.

Issuance to Shares to Fortress

On March 13, 2017, the Company issued to Fortress 767,264 shares of common stock at $5.73 per share representing the stock dividend payable in connection with the ownership of Class A preferred shares (see Note 3).

SIGNATURES

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this Form 10-K to be signed on its behalf by the undersigned, thereunto duly authorized.

Mustang Bio, Inc.

By: /s/ Michael S. Weiss
Name: Michael S. Weiss
Title: Executive Chairman and Chief Executive Officer

March 30, 2017

POWER OF ATTORNEY

We, the undersigned directors and/or executive officers of Mustang Bio, Inc., hereby severally constitute and appoint Michael S. Weiss, acting singly, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her in any and all capacities, to sign this Form 10-K and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing necessary or appropriate to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby approving, ratifying and confirming all that said attorney-in-fact and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Form 10-K 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
/s/ Michael S. Weiss Michael S. Weiss	Executive Chairman of the Board and Chief Executive Officer	March 30, 2017
* David J. Horin	Interim Chief Financial Officer	March 30, 2017
* Lindsay A. Rosenwald, M.D.	Director	March 30, 2017
* Neil Herskowitz	Director	March 30, 2017

Index to Exhibits

Exhibit No.	Description
10.11	Agreement with Caribe BioAdvisors, LLC, dated January 1, 2017.
10.12	Exclusive License Agreement with The Regents of the University of California, dated March 17, 2017. ^
10.13	Exclusive License Agreement – IV/ICV with City of Hope, dated February 17, 2017. ^
10.14	Amended and Restated Exclusive License Agreement – CD123 with City of Hope, dated February 17, 2017. ^
10.15	Amended and Restated Exclusive License Agreement – IL-13 with City of Hope, dated February 17, 2017. ^
10.16	Amended and Restated Exclusive License Agreement – Spacer with City of Hope, dated February 17, 2017. ^
24.1	Power of Attorney (included on signature page).
31.1	Certification of Chairman and Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Interim Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chairman and Chief Executive Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Interim Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following financial information from Mustang Bio, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2016, formatted in Extensible Business Reporting Language (XBRL): (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statements of Operations, (iii) the Condensed Consolidated Statement of Stockholders' Equity, (iv) the Condensed Consolidated Statements of Cash Flows, and (v) Notes to the Condensed Consolidated (filed herewith).

^ Confidential treatment has been requested with respect to omitted portions of this exhibit.

BOARD ADVISORY SERVICES AGREEMENT

THIS BOARD ADVISORY SERVICES AGREEMENT (this "Agreement") is made as of January 1, 2017, by and between Mustang Biotech, Inc., a Delaware corporation (the "Company"), and Caribe BioAdvisors, LLC, a Puerto Rico limited liability company (the "Advisor" and individually a "Party" or collectively the "Parties").

WHEREAS, on the terms and subject to the conditions contained in this Agreement, the Company desires to obtain certain board advisory services from the Advisor, and the Advisor has agreed to perform such board advisory services;

WHEREAS, this Agreement has been approved by the Company's Board of Directors (the "Board").

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

1. Board Advisory Services.

1.1 Approval and Authority. Where not required by applicable law or regulation, the Advisor shall not require the prior approval of the Board to perform its duties under this Agreement. Notwithstanding the foregoing, the Advisor shall not have the authority to bind the Company, and nothing contained herein shall be construed to create an agency relationship between the Company and the Advisor.

1.1 Services.

1.1.1 Scope. Subject to any limitations imposed by applicable law or regulation, the Advisor shall render or cause to be rendered board advisory services to the Company, which services may include, without limitation, participation on the Board of the Company in the capacity of Chairman of the Board by one of Advisor's employees and related advice and assistance by Advisor and its employees (collectively, the "Services"). The Advisor shall provide and devote to the performance of this Agreement such employees, Affiliates and agents of the Advisor as the Advisor shall deem appropriate to the furnishing of the Services hereunder, which employees (other than Mr. Weiss) shall be billed separately (quarterly in arrears) at the hourly rates designated on Schedule 1.1.1. Such billings shall not exceed $10,000 per year without prior authorization of the Company. "Affiliate" means a person or entity that controls, is controlled by or is under common control with a party, but only for so long as such control exists. For the purposes of the definition of Affiliate, the word "control" (including, with correlative meaning, the terms "controlled by" or "under common control with") means the actual power, either directly or indirectly through one or more intermediaries, to direct the management and policies of such person or entity, whether by the ownership of at least 50% of the voting stock of such entity, or by contract or otherwise.

1.1.2 Board Services. The Company hereby requests and Advisor hereby agrees to provide Mr. Weiss to serve as Chairman of the Board of the Company. In order to enable Advisor to provide Mr. Weiss, one of its employees, to deliver the requested Services as Chairman of the Board of the Company, the Company agrees to use its best efforts to cause Michael S. Weiss, to be elected as a member of the Company's Board, and to be selected as Chairman of the Board, throughout the Term and shall include him in the slate for election as a director at every stockholders meeting during the Term at which his term as a director would otherwise expire.

1.2 Non-exclusivity, Freedom to Pursue Opportunities and Limitation on Liability.

1.2.1 Non Exclusivity. The Advisor shall devote such time and efforts to the performance of Services contemplated hereby as the Advisor deems reasonably necessary or appropriate; provided, however, that no minimum number of hours is required to be devoted by the Advisor on a weekly, monthly, annual or other basis. The Company acknowledges that the Services are not exclusive to the Company and that the Advisor will render similar Services to other persons and entities.

1.2.2 Freedom to Pursue Opportunities. In recognition that the Advisor and its Affiliates currently have, and will in the future have or will consider working with or investing in numerous companies with respect to which the Advisor or its Affiliates may serve as an advisor, a director, officer or in some other capacity, and in recognition that the Advisor and its Affiliates have a myriad of duties to these other companies and their shareholders, and in anticipation that the Company and the Advisor (or one or more Affiliates or clients of the Advisor) may engage in the same or similar activities or lines of business and have an interest in the same areas of corporate opportunities, and in recognition of the benefits to be derived by the Company hereunder and in recognition of the difficulties that may confront any Advisor who desires and endeavors fully to satisfy such Advisor's duties in determining the full scope of such duties in any particular situation, the provisions of this Section 1.2.2 are set forth to regulate, define and guide the conduct of certain affairs of the Company as they may involve the Advisor.

Except as the Advisor may otherwise agree in writing after the date hereof:

(i) the Advisor will have the right: (A) to directly or indirectly engage in any business including, without limitation, any business activities or lines of business that are the same as or similar to those pursued by, or competitive with, any of the Company's, (B) to directly or indirectly do business with any client or customer of the Company, (C) to take any other action that the Advisor believes in good faith is necessary to or appropriate to fulfill its obligations as described in the first sentence of this Section 1.2.2, and (D) not to present potential transactions, matters or business opportunities to the Company, and to pursue, directly or indirectly, any such opportunity for itself, and to direct any such opportunity to another person.

(ii) the Advisor and its officers, employees, partners, members, other clients, Affiliates and other associated entities will have no duty (contractual or otherwise) to communicate or present any corporate opportunities to the Company or to refrain from any action specified in Section 1.2.2(i), and the Company on its own behalf and on behalf of its Affiliates, hereby renounces and waives any right to require the Advisor or any of its Affiliates to act in a manner inconsistent with the provisions of this Section 1.2.2.

(iii) Neither the Advisor nor any officer, director, employee, partner, member, stockholder, Affiliate or associated entity thereof will be liable to the Company for breach of any duty (contractual or otherwise) by reason of any activities or omissions of the types referred to in this Section 1.2.2 or of any such person's participation therein.

2. Term. The Advisor shall provide the Services set forth in Section 1 above from the date hereof until the earlier of (a) termination of this Agreement by mutual agreement of the Advisor and the Company and (b) the date on which Advisor is no longer a member of the Board of the Company (such period, the "Term"). If this Agreement is terminated as a result of (i) the Board not nominating Advisor for reelection to the Board or (ii) the shareholders not voting to reelect Advisor to the Board, then any outstanding but unvested equity grants shall immediately vest.

No termination of this Agreement, whether pursuant to this Section 2 or otherwise, will affect the Company's duty to pay any Management Fee (as defined herein in Section 3) accrued, or to reimburse any cost or expense incurred pursuant to Section 4 hereof, prior to the effective date of such termination. Upon termination of this Agreement, the Advisor's right to receive any further Management Fee or reimbursement for costs and expenses that have not accrued or been incurred to the date of termination shall cease and terminate. Additionally, the obligations of the Company under Section 4 (Expenses), Section 7 (Indemnification), the provisions of Section 1.2.2 above (whether in respect of or relating to Services rendered prior to termination of this Agreement or in respect of or relating to any Services provided after termination of this Agreement) and the provisions of Section 14 (Governing Law) will also survive any termination of this Agreement to the maximum extent permitted under applicable law.

3. Compensation.

3.1 Commencing on the date hereof, in consideration of the board advisory and consulting services to be rendered, the Company will pay to the Advisor an annual consulting fee in cash in the aggregate amount equal to $60,000 (the "Annual Consulting Fee"), payable in advance in equal quarterly installments within twenty (20) business days of the beginning of each calendar quarter in each year. In addition, Advisor shall receive any and all annual equity incentive grants paid to other members of the Board of Directors, as, if and when paid to the other Board members.

3.2 Any payment pursuant to this Section 3 shall be made either (i) in cash by wire transfer(s) of immediately available funds to or among one or more accounts as designated from time-to-time by the Advisor to the Company in writing or (ii) by corporate check delivered by U.S. mail or overnight delivery service.

4. Expenses. Actual and direct out-of-pocket expenses reasonably incurred by the Advisor and its personnel in performing the Services shall be reimbursed to the Advisor by the Company upon the delivery to the Company of an invoice, receipt or such other supporting data as the Company reasonably shall require. The Company shall reimburse the Advisor by wire transfer of immediately available funds or by corporate check for any amount paid by the Advisor, which shall be in addition to any other amount payable to the Advisor under this Agreement.

5. Reserved.

6. Decisions and Authority of the Advisor.

6.1 No Liability. In no event will the Advisor or any of its Affiliates be liable to the Company for any indirect, special, incidental or consequential damages, including, without limitation, lost profits or savings, whether or not such damages are foreseeable, or for any third party claims (whether based in contract, tort or otherwise), relating to the Services to be provided by the Advisor hereunder. The Company reserves the right to make all decisions with regard to any matter upon which the Advisor has rendered advice and consultation, and there shall be no liability of the Advisor for any such advice accepted by the Company pursuant to the provisions of this Agreement. The Advisor will not be liable for any mistakes of fact, errors of judgment or losses sustained by the Company or for any acts or omissions of any kind (including acts or omissions of the Advisor), except to the extent caused by intentional misconduct of the Advisor as finally determined by a court of competent jurisdiction. In such case, the Advisor's liability shall be limited to direct damages not to exceed the total fees paid to Advisor for the Services provided to the Company through the date of any claim.

6.2 Independent Contractor. The Advisor shall act solely as an independent contractor and shall have complete charge of its respective personnel engaged in the performance of the Services under this Agreement. Neither the Advisor nor its officers, employees or agents will be considered employees or agents of the Company or any of its respective subsidiaries as a result of this Agreement. As an independent contractor, the Advisor shall have authority only to act as an advisor to the Company and shall have no authority to enter into any agreement or to make any representation, commitment or warranty binding upon the Company or to obtain or incur any right, obligation or liability on behalf of the Company. Nothing contained in this Agreement shall result in the Advisor or any of its partners or members or any of their Affiliates, investment Advisors, investment advisors or partners being a partner of or joint venturer with the Company.

7. Indemnification.

7.1 Indemnification. The Company shall (i) indemnify the Advisor and its respective Affiliates, directors, officers, employees and agents (collectively, the "Indemnified Party"), to the fullest extent permitted by law, from and against any and all actions, causes of action, suits, claims, liabilities, losses, damages and costs and expenses in connection therewith, including without limitation reasonable attorneys' fees and expenses ("Indemnified Liabilities") to which the Indemnified Party may become subject, directly or indirectly caused by, related to or arising out of the Services or any other advice or Services contemplated by this Agreement or the engagement of the Advisor pursuant to, and the performance by such Advisor of the Services contemplated by, this Agreement, and (ii) promptly reimburse the Indemnified Party for Indemnified Liabilities as incurred, in connection with the investigation of, preparation for or defense of any pending or threatened claim or any action or proceeding arising therefrom, whether or not such Indemnified Party is a party and whether or not such claim, action or proceeding is initiated or brought by or on behalf of the Company or Advisor and whether or not resulting in any liability. If and to the extent that the foregoing undertaking may be unenforceable for any reason, the Company hereby agrees to make the maximum contribution to the payment and satisfaction of each of the Indemnified Liabilities that is permissible under applicable law.

7.2 Limitations on Indemnity; Restrictions on Liability. The Company shall not be liable under the indemnification contained in Section 7.1 hereof with respect to the Indemnified Party to the extent that such Indemnified Liabilities are found in a final non-appealable judgment by a court of competent jurisdiction to have resulted directly from the Indemnified Party's willful misconduct. The Company further agrees that no Indemnified Party shall have any liability (whether direct or indirect, in contract, tort or otherwise) to the Company, holders of its securities or its creditors related to or arising out of the engagement of the Advisor pursuant to, or the performance by the Advisor of the Services contemplated by, this Agreement.

8. Notices. All notices, demands, or other communications to be given or delivered under or by reason of the provisions of this Agreement shall be in writing and shall be deemed to have been given or made when (i) delivered personally to the recipient, (ii) telecopied to the recipient (with a hard copy sent to the recipient by reputable overnight courier service (charges prepaid)) if telecopied before 5:00 p.m. Eastern Standard Time on a business day, and otherwise on the next business day, (iii) one (1) business day after being sent to the recipient by reputable overnight courier service (charges prepaid) or (iv) received via electronic mail by the recipient if received via electronic mail before 5:00 p.m. Eastern Standard Time on a business day, and otherwise on the next business day after such receipt. Such notices, demands and other communications shall be sent to the address for such recipient indicated below or to such other address or to the attention of such other person as the recipient party has specified by prior written notice to the sending party.

Notices to the Advisor

Caribe Plaza
25 Avenida Ponce de Leon, Suite 1201
San Juan, Puerto Rico 00901
Attn: Michael S. Weiss
e-mail: msw@caribebio.com

Notices to the Company:

2 Gansevoort Street,
9th Floor
New York, NY 10014
Attention: Robyn Hunter
e-mail: rhunter@fortressbio.com

9. Severability. If any term, provision, covenant or restriction of this Agreement is held by a court of competent jurisdiction to be invalid, illegal, void or unenforceable, the remainder of the terms, provisions, covenants and restrictions set forth herein shall remain in full force and effect and shall in no way be affected, impaired or invalidated, and the Parties hereto shall use their best efforts to find and employ an alternative means to achieve the same or substantially the same result as that contemplated by such term, provision, covenant or restriction. It is hereby stipulated and declared to be the intention of the Parties that they would have executed the remaining terms, provisions, covenants and restrictions without including any such terms, provisions, covenants and restrictions which may be hereafter declared invalid, illegal, void or unenforceable.

10. Entire Agreement. This Agreement contains the entire understanding of the Parties with respect to the subject matter hereof and supersedes any prior communication or agreement with respect thereto.

11. Counterparts. This Agreement may be executed in multiple counterparts, and any Party may execute any such counterpart, each of which when executed and delivered will thereby be deemed to be an original and all of which counterparts taken together will constitute one and the same instrument. The delivery of this Agreement may be effected by means of an exchange of facsimile or portable document format (.pdf) signatures.

12. Amendments and Waiver. No amendment or waiver of any term, provision or condition of this Agreement will be effective, unless in writing and executed by both the Company and the Advisor. No waiver on any one occasion will extend to, effect or be construed as a waiver of any right or remedy on any future occasion. No course of dealing of any person nor any delay or omission in exercising any right or remedy will constitute an amendment of this Agreement or a waiver of any right or remedy of any Party hereto.

13. Successors and Assigns. All covenants and agreements contained in this Agreement by or on behalf of any of the Parties hereto will bind and inure to the benefit of the respective successors and assigns of the Parties hereto whether so expressed or not. Neither the Company nor the Advisor may assign its rights or delegate its obligations hereunder without the prior written consent of the other Party, which consent shall not be unreasonably withheld; provided, that the Advisor may assign this Agreement to any of its Affiliates.

14. Governing Law. This Agreement shall be governed by and construed in accordance with the substantive laws of the state of Delaware, without giving effect to any choice of law or conflict of law provision or rule that would cause the application of the laws of any jurisdiction other than the state of Delaware.

15. Waiver of Jury Trial. To the extent not prohibited by applicable law which cannot be waived, each of the Parties hereto hereby waives, and covenants that it will not assert (whether as plaintiff, defendant or otherwise), any right to trial by jury in any forum in respect of any issue, claim, demand, cause of action, action, suit or proceeding arising out of or based upon this Agreement or the subject matter hereof, in each case whether now existing or hereafter arising and whether in contract or tort or otherwise. Any of the Parties hereto may file an original counterpart or a copy of this Agreement with any court as written evidence of the consent of each of the Parties hereto to the waiver of its right to trial by jury.

16. No Strict Construction. The Parties hereto have participated jointly in the negotiation and drafting of this Agreement. In the event an ambiguity or question of intent or interpretation arises, this Agreement will be construed as if drafted jointly by the Parties hereto, and no presumption or burden of proof will arise favoring or disfavoring any Party by virtue of the authorship of any of the provisions of this Agreement.

17. Headings; Interpretation. The headings in this Agreement are for convenience and reference only and shall not limit or otherwise affect the meaning hereof. The use of the word "including" in this Agreement will be by way of example rather than by limitation.

* * * * * *

IN WITNESS WHEREOF, the Parties hereto have executed this Advisory Services Agreement as of the date first written above.

CARIBE BIOADVISORS, LLC

By: /s/ Michael S. Weiss
Name: Michael S. Weiss
Title: Chief Executive Officer

MUSTANG BIOTECH, INC.

By: /s/ Robyn M. Hunter
Name: Robyn M. Hunter
Title: Treasurer & Secretary

Schedule 1.1.1

Assistant - $50

Junior Associate - $75

Associate - $100

Senior Associate - $150

CONFIDENTIAL TREATMENT REQUESTED. Confidential portions of this document have been redacted and have been separately filed with the Commission.

Exhibit 10.12

EXCLUSIVE LICENSE AGREEMENT

BETWEEN

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

AND

MUSTANG BIO, INC.

FOR

UCLA Case No. * : "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*"

AND

UCLA Case No. * : "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*"

*Confidential material redacted and filed separately with the Commission.

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EXCLUSIVE LICENSE AGREEMENT

THIS EXCLUSIVE LICENSE AGREEMENT AND THE ATTACHED APPENDICES A, B, C, AND D (collectively, the " **Agreement**") is made and is effective as of March 17, 2017 (the "**Effective Date")** between **THE REGENTS OF THE UNIVERSITY OF CALIFORNIA** ("**The Regents**"), a California corporation having its corporate offices located at 1111 Franklin Street, Oakland, California 94607-5200, acting through The Technology Development Group of the University of California, Los Angeles, located at **10889 Wilshire Boulevard, Suite 920, Los Angeles, CA 90095-7191** , and **MUSTANG BIO, INC.** ("**Licensee**"), a Delaware corporation having a principal place of business at **2 Gansevoort, 9th Floor, New York, NY 10014.**

RECITALS

WHEREAS, certain invention(s), generally characterized as

1. UCLA Case No. * : "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*"; and

2. UCLA Case No. * : "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*"

(the "**Inventions**") were made in the course of research at the University of California, Los Angeles by Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, ("**Inventors**"), and are claimed in Regents' Patent Rights, as defined below;

WHEREAS, the Inventors are employees of The Regents and as such are obligated to assign their right, title and interest in and to the Inventions to The Regents;

WHEREAS, UCLA Case Nos. * and * were developed with United States Government funds, and The Regents has elected title thereto and granted royalty-free nonexclusive licenses to the United States Government on March 6, 2009 and March 5, 2010, respectively, as required under 35 U.S.C. §200-212;

WHEREAS, Licensee is a "**small business concern**" as defined in 15 U.S.C. §§632; and

WHEREAS, The Regents wishes that Regents' Patent Rights be developed and utilized to the fullest extent so that the benefits can be enjoyed by the general public.

The parties agree as follows:

1. DEFINITIONS

1.1 "**Affiliate**" means any business entity in which Licensee owns or controls, directly or indirectly, at least fifty percent (50%) of the outstanding stock or other voting rights entitled to elect directors. In any country where the local law does not permit foreign equity participation of at least fifty percent (50%), then "**Affiliate**" means any business entity in which Licensee owns or controls, directly or indirectly, the maximum percentage of outstanding stock or voting rights that is permitted by local law.

*Confidential material redacted and filed separately with the Commission.

1.2 "**BLA**" means a biologics license application submitted to the FDA prior to marketing a pharmaceutical product as required under the United States Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or the substantive equivalent of such BLA as required by a given Regulatory Authority outside the United States prior to marketing and selling a pharmaceutical product in such Regulatory Authority's country.

1.3 "**Combination Product**" means a product which comprises (a) a Licensed Product (the "**Licensed Product Component**"), and (b) at least one other pharmacologically active ingredient, which, if administered or used independently of the Licensed Product, would have a therapeutic effect (the "**Non-Licensed Product Component**"). Combination Products are also Licensed Products and therefore references to Licensed Products in the definitions in this Agreement (such as in the definition of Net Sales, Final Sales, etc.) also refer to Combination Products.

1.4 "**Commercialization**" has the meaning set forth in Paragraph 6.1 of this Agreement.

1.5 "**Commercially Reasonable Efforts**" means, with respect to the efforts to be expended pertaining to the commercialization of a Licensed Product, those diligent, reasonable, good faith efforts to accomplish such objective as such party would normally use to accomplish a similar objective under similar circumstances. For the avoidance of doubt, "Commercially Reasonable Efforts" shall not include (a) halting commercialization of, or otherwise shelving, a Licensed Product for the purpose of pursuing another of Licensee's (or Sublicensee's as the case may be) products not covered by Regents' Patent Rights or (b) discontinuing all development, manufacturing, marketing and selling of such Licensed Product for a period of greater than twenty-four (24) months.

1.6 **"Covered"** means that the use, manufacture, sale, offer for sale, development, commercialization or importation of the subject matter in question by an unlicensed entity would infringe a Valid Claim of a Patent Right; provided that infringement of any Valid Claim of a pending patent application shall be determined as if such Valid Claim were issued or granted.

1.7 "**Customer**" means any individual or entity that receives Licensed Products or Licensed Methods, provided however, that Licensee or Sublicensee shall be deemed a Customer only if it receives Licensed Products or Licensed Methods that are not intended for further sale, transfer, lease, exchange or other disposition.

1.8 "**FDA**" means the United States Food and Drug Administration or any successor entity thereto.

1.9 "**Field of Use**" *.

1.10 "**Final Sale**" means any sale, transfer, lease, exchange or other disposition or provision of a Licensed Product and/or a Licensed Method to a Customer by Licensee or a Sublicensee. A Final Sale will be deemed to have occurred upon the earliest to occur of the following (as applicable): (a) the transfer of title to such Licensed Product and/or Licensed Method to a Customer, (b) the shipment of such Licensed Product to a Customer, (c) the provision of a Licensed Method to a Customer, (d) the provision of an invoice for such Licensed Product or Licensed Method to a Customer, or (e) payment by the Customer for Licensed Products or Licensed Methods. Exchange of Licensed Products between Licensee and a Sublicensee is not a Final Sale if the Licensed Product is intended for further sale, transfer, lease, exchange or other disposition, in which case the Final Sale will be deemed to have occurred upon sale, transfer, lease, exchange or other disposition or provision of Licensed Product by Licensee or Sublicensee to a Customer. In addition, none of the following shall constitute a Final Sale (and no royalty shall be owing hereunder with respect to any of the following): (x) transfer by Licensee or a Sublicensee of Licensed Product at no cost solely for use in, or for purposes of, a clinical study, clinical trial, or as a free sample in product promotion; and (y) use by Licensee, its Affiliates or Sublicensees of Product for their internal research purposes.

*Confidential material redacted and filed separately with the Commission.

1.11 "**First Commercial Sale**" means the first sale of any Licensed Product by Licensee or a Sublicensee, following approval of its marketing by the appropriate governmental agency for the country in which the sale is to be made. When governmental approval is not required, "First Commercial Sale" means the first sale in that country.

1.12 "**IND**" means an investigational new drug application submitted to the FDA prior to the commencement of human clinical testing of a pharmaceutical product as required under the United States Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or the substantive equivalent of such IND application as required by a given Regulatory Authority outside the United States prior to commencing clinical testing of a pharmaceutical product in human subjects in such Regulatory Authority's country.

1.13 "**Joint Venture**" means any separate entity established pursuant to an agreement between a third party and Licensee and/or a Sublicensee, in which the separate entity manufactures, uses, purchases, sells or acquires Licensed Products from Licensee or a Sublicensee.

1.14 "**Licensed Method**" means any process, service, or method Covered by a Valid Claim within Regents' Patent Rights or whose use or practice would, absent the license granted under this Agreement, constitute an infringement, inducement of infringement or contributory infringement of any Valid Claim within Regents' Patent Rights.

1.15 "**Licensed Product**" means any article, composition, apparatus, substance, chemical, or any other material Covered by a Valid Claim within Regents' Patent Rights or whose manufacture, import use, offer for sale, or sale would, absent the license granted under this Agreement, constitute an infringement, inducement of infringement or contributory infringement of any Valid Claim within Regents' Patent Rights, or any service, article, composition, apparatus, chemical, substance or any other material made, used or sold by or utilizing or practicing a Licensed Method. This definition of Licensed Product also includes a service either used by Licensee or a Sublicensee or provided by Licensee or a Sublicensee to a Customer when such service requires the use of Licensed Product or performance of a Licensed Method.

1.16 "**Minimum Annual Royalty**" has the meaning set forth in Paragraph 5.3 of this Agreement.

1.17 "**NDA**" means a new drug application submitted to the FDA prior to marketing a pharmaceutical product as required under the United States Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or the substantive equivalent of such NDA as required by a given Regulatory Authority outside the United States prior to marketing and selling a pharmaceutical product in such Regulatory Authority's country.

1.18 "**Net Sales**" means the total of the gross amount invoiced or otherwise charged (whether consisting of cash or any other forms of consideration) for all Final Sales, less the following deductions (to the extent included in and not already deducted from the gross amount invoiced or otherwise charged) to the extent reasonable and customary: (i) cash, trade or quantity discounts actually granted to Customers; (ii) sales, use, tariff, import/export duties or other excise taxes imposed on particular sales, and value added taxes ("**VAT**") to the extent that such VAT is incurred and not reimbursed, refunded, or credited under a tax authority; (iii) bad debts actually written off, as applied on a consistent basis; (iv) shipping, handling, freight, postage, insurance and transportation charges; (v) administrative fees paid to group purchasing organizations (e.g., Medicare) and government-mandated rebates; and (vi) sales returns, allowances or credits to Customers because of rejections or returns. Income taxes are not an allowed deduction under Net Sales. If Licensee, a Sublicensee, development partner or Joint Venture is a Customer, then Licensee will pay royalties on Net Sales based on the total gross amount normally charged to other Customers in arm's length transactions.

If the Licensed Product or Licensed Method is a component of a Combination Product, such Combination Product is deemed to be the Licensed Product for purposes of this Agreement.

Likewise, if Licensee or a Sublicensee receives a Licensed Product for incorporation into another product intended for sale, transfer, lease or other disposition, then, for the purposes of this Agreement, the Licensed Product is such product intended for sale, transfer, lease, or other disposition by Licensee or a Sublicensee, and such product intended for sale, transfer, lease, or other disposition by Licensee or a Sublicensee is also a Combination Product for purposes of this Agreement.

With respect to Combination Products, Net Sales means the gross amount invoiced or otherwise charged for the Final Sale by Licensee (or Sublicensee as the case may be) of such Combination Product, multiplied by a proration factor. This proration factor shall be determined as follows:

1.18a If the Licensed Product Component(s) and the Non-Licensed Product Component(s) were both sold separately from each other during one or more of the immediately preceding ten (10) years, the proration factor shall be determined by the formula [A/(A+B)], where A is the average over the past ten years of the gross selling price of the Licensed Product Component sold separately and B is the average over the past ten years of the gross selling price of the Non-Licensed Product Component(s);

1.18b If the Licensed Product Component(s) and the Non-Licensed Product Component(s) were not both sold separately from each other during one or more of the immediately preceding ten (10) years but the Licensed Product Component was sold separately during one or more of the immediately preceding ten (10) years, the proration factor shall be determined by the formula A/C, where A is the average over the past ten (10) years of the gross selling price of the Licensed Product Component sold separately, and C is the invoice price of the Combination Product.

1.18c If neither 1.18a or 1.18b applies, then the proration factor shall be determined in a consistent and equitable manner that reflects the contribution of the Licensed Product Component to the payments received from Net Sales of the Combination Product as the parties shall in good faith negotiate and agree.

With respect to 1.18(a)-(c) above, in no case will the proration factor in 1.18(a)-(c) above be less than one half (0.5).

1.19 "**Patent Action**" means the preparation, filing, prosecution and maintenance of patent applications and patents in Regents' Patent Rights. Prosecution includes, but is not limited to, reexaminations, interferences, oppositions, and any other ex parte or inter partes matters originating in a patent office.

1.20 "**Patent Costs**" means all documented out-of-pocket costs incurred by The Regents for Patent Actions.

1.21 "**Phase I Clinical Trial**" means any human clinical trial that has as its principal purpose, and that is reasonably constituted to achieve, a preliminary determination of safety in human subjects, as required under the United States Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or the substantive equivalent of such Phase I Clinical Trial as required by a given Regulatory Authority outside the United States prior to marketing and selling a Licensed Product in such Regulatory Authority's country.

1.22 "**Phase II Clinical Trial**" means any human clinical trial that has as its principal purpose, and that is reasonably constituted to achieve, a preliminary evaluation of clinical efficacy and safety, and/or to obtain an indication of the dosage regimen in human subjects, as required under the United States Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or the substantive equivalent of such Phase II Clinical Trial as required by a given Regulatory Authority outside the United States prior to marketing and selling a Licensed Product in such Regulatory Authority's country.

1.23 "**Phase III Clinical Trial**" means any human clinical trial that has as its principal purpose, and that is reasonably constituted to achieve, establishing safety and efficacy in human subjects, as required under the United States Federal Food, Drug and Cosmetic Act and the regulations promulgated thereunder, or the substantive equivalent of such Phase III Clinical Trial as required by a given Regulatory Authority outside the United States prior to marketing and selling a Licensed Product in such Regulatory Authority's country.

1.24 "**Regents' Patent Rights**" means The Regents' interest in any of the patent applications and patents listed in Appendix A (REGENTS' PATENT RIGHTS) attached to this Agreement and assigned to The Regents (UCLA Case Nos. * and *); any continuing applications thereof including divisions; but excluding continuations-in-part except to the extent of claims entirely supported in the specification and entitled to the priority date of the parent application; any patents issuing on these applications including reissues, substitutions, and patent extensions; and any corresponding foreign patents, patent applications and supplemental protection certificates; all of which will be automatically incorporated in and added to Appendix A and made a part of this Agreement.

1.25 "**Regulatory Authority**" means the FDA or its counterpart in Canada, Australia, Japan, the United Kingdom or any country within the European Union.

1.26 "**Side Deal**" means an arrangement, understanding, agreement, or transaction (collectively "**Deals**") between the Licensee and a third party Sublicensee and/or its affiliates, which Deal is not a Sublicense.

1.27 "**Sublicensee**" means any person or entity (including any Affiliate or Joint Venture) to which any of the rights granted to Licensee hereunder are sublicensed.

1.28 "**Sublicensing Income**" means income received by Licensee in consideration for a Sublicense or other agreement providing the right to negotiate or obtain a Sublicense. Sublicensing Income includes income received from Sublicensees in consideration for the sublicensed Regents' Patent Rights in the form of e.g. license issue fees, milestone payments, and certain other payments but specifically excludes: (a) royalties on the sale or distribution of Licensed Products or the practice of Licensed Methods; and (b) income received by Licensee as payment or reimbursement for research or development costs at fair market value applied to the licensed Invention and conducted by or for Licensee, including costs of materials, equipment or clinical testing.

1.29 "**Territory**" means the jurisdictions where Regents' Patent Rights exist.

1.30 **"Valid Claim**" means (i) a claim of an issued patent that has not expired or been held unenforceable or invalid by a final judgment or decision of a court or other government agency of competent jurisdiction from which no appeal has been or can be taken, and which has not been admitted to be invalid or unenforceable through reissue, disclaimer or the like, or (ii) a claim of a pending patent application that has not been abandoned or finally rejected without the possibility of appeal or re-filing. For purposes of clarity, both (i) and (ii) are Valid Claims for purposes of this Agreement.

*Confidential material redacted and filed separately with the Commission.

2. GRANT

2.1 Subject to the limitations set forth in this Agreement, The Regents hereby grants to Licensee, and Licensee hereby accepts an exclusive (even as to The Regents, subject to Paragraph 2.3) license (with rights to sublicense as further described in Paragraph 3.1) (the "**License**") under Regents' Patent Rights, in jurisdictions where Regents' Patent Rights exist, to make, have made, use, sell, offer for sale and import Licensed Products and to practice Licensed Methods in the Field of Use to the extent permitted by law. Licensee will not make, use, have made, sell, offer for sale, or import Licensed Products or practice Licensed Methods outside the Field of Use. For the avoidance of doubt, Affiliates and Joint Ventures have no rights hereunder unless granted a Sublicense.

2.2 The License is subject to all the applicable provisions of any license to the United States Government executed by The Regents and is subject to any overriding obligations to the United States Federal Government under 35 U.S.C. §§200-212, applicable governmental implementing regulations, and the U.S. Government sponsored research agreement or other guidelines.

2.3 The Regents expressly reserves the right to: (a) use Regents' Patent Rights and associated technology for educational and research purposes, clinical research, (b) publicly disclose research results, (c) use Regents' Patent Rights and associated technology to offer and perform clinical diagnostic and prognostic services, and (d) allow other non-profit institutions to use Regents' Patent Rights and associated technology for the same purposes as all of the foregoing.

If Licensee files a claim including in any way the assertion that any portion of Regents' Patent Rights is invalid or unenforceable where the filing is by Licensee, a third party on behalf of Licensee, or a third party at the written urging of, or with the deliberate assistance of, the Licensee, then, if such challenge fails, the royalty rate due hereunder will immediately double with no further notice from The Regents (any such action, a "**Patent Challenge**"). The Parties agree, however, that, notwithstanding the foregoing, the following actions or filings shall not constitute a Patent Challenge for purposes of this Agreement: (i) arguments and comments made by or on behalf of Licensee, any Affiliate thereof, or any Sublicensee in its usual course of business with respect to prosecution of Licensee's, its Affiliates', or any Sublicensees' patents or patent applications in response to communications from patent offices or Regulatory Authorities, provided that such arguments and comments are primarily directed at differentiating Licensee's, its Affiliates', or any Sublicensees' patents or patent applications as patentably distinct from the Regents' Patent Rights and not primarily aimed at questioning or contesting the validity, enforceability, patentability, priority of invention or other claim to priority, or patent term adjustment of the Regents' Patent Rights; (ii) arguments and comments made by Licensee, any Affiliate thereof, or any Sublicensee in legal proceedings in defense of Licensee's, its Affiliates', or any Sublicensees' patents or patent applications, but only if an opposing party uses Regents' Patent Rights to challenge the validity or enforceability of the defended patents or patent applications of Licensee, any Affiliate thereof, or any Sublicensee, provided that such arguments and comments are primarily directed at differentiating Licensee's, its Affiliates', or Sublicensees' patents or patent applications as patentably distinct from the Regents' Patent Rights and not primarily aimed at questioning or contesting the validity, enforceability, patentability, priority of invention or other claim to priority, or patent term adjustment of the Regents' Patent Rights; (iii) any defenses, counterclaims, or countersuits brought by a Sublicensee in response to a legal proceeding filed by or on behalf of Licensor or any licensee, sublicensee, or transferee thereof with respect to any Regents' Patent Rights against such Sublicensee with respect to an alleged or actual infringement of Regents' Patent Rights by such Sublicensee with respect to a product or service, other than a Product, not intended for use in the Field (or the use or manufacture thereof) and where such Sublicensee does not expressly question or contest the validity or enforceability of the Regents' Patent Rights with respect to any Product or any other product or service intended for use in the Field (or the use or manufacture thereof) (i.e., if such Sublicensee expressly contests the validity or enforceability of the Regents' Patent Rights with respect to any Product or other product or service intended for use in the Field (or the use or manufacture thereof) ; (iv) if a non-Affiliate third party Sublicensee withdraws, files a dismissal with prejudice, or takes any action having similar effect, with respect to any action or proceeding commenced by such Sublicensee in any patent office, Governmental Authority, or court in which it challenged the validity or enforceability of any Regents' Patent Rights within thirty (30) days after the initial filing of such action or proceeding, and delivers a copy of such withdrawal or dismissal with prejudice, or reasonable documentary evidence of any similar action having similar effect, to The Regents within such thirty (30) day period; or (v) any interference, opposition, re-examination or similar proceeding or any other legal proceeding with a patent office, Regulatory Authority, or any court in which one or more claims or allegations challenges the validity or enforceability of any Regents' Patent Rights to the extent the party instituting, maintaining, or furthering such action or proceeding is only actively engaged in the initiation, maintenance, or furthering thereof prior to the date on which such party became an Affiliate of Licensee or Sublicensee, provided, that such Affiliate files a dismissal with prejudice, or takes any action having similar effect, with respect to such action or proceeding commenced by such Affiliate within thirty (30) days after becoming an Affiliate of Licensee, and delivers a copy of such withdrawal or dismissal with prejudice, or reasonable documentary evidence of any similar action having similar effect, to The Regents within such thirty (30) day period.

3. SUBLICENSES

3.1 The Regents hereby grants to Licensee the right to sublicense the rights granted to Licensee hereunder ("**Sublicenses**"), and Licensee hereby accepts such right. All Sublicenses will: (i) be issued in writing, (ii) include an express prohibition against issuing further sublicenses under any or all of Regents' Patent Rights and (iii) to the extent applicable include all of the rights of The Regents and require the performance of obligations due to The Regents (and, if applicable, the U.S. Government under 35 U.S. C. §§201-212) contained in this Agreement. For the purposes of this Agreement, and solely as between Licensee and The Regents hereunder, operations of Sublicensees performed under the purview of their applicable Sublicenses are deemed to be the operations of Licensee, for which Licensee is responsible.

3.2 Licensee must pay to The Regents a percentage of all Sublicensing Income according to the following:

3.2a * Percent (* %) of any Sublicensing Income received under a Sublicense executed prior to *;

3.2b * Percent (* %) of any Sublicensing Income received under a Sublicense executed after the *; and

3.2c * Percent (* %) of any Sublicensing Income received under a Sublicense executed after the *.

Licensee must pay such Sublicensing Income to The Regents on or before the following dates:

- February 28 (for Sublicensing Income received by Licensee on or before the last day of the calendar quarter ending December 31 of the prior year);
- May 31 (for Sublicensing Income received by Licensee on or before the last day of the calendar quarter ending March 31);
- August 31 (for Sublicensing Income received by Licensee on or before the last day of the calendar quarter ending June 30); and
- November 30 (for Sublicensing Income received by Licensee on or before the last day of the calendar quarter ending September 30).

*Confidential material redacted and filed separately with the Commission.

3.3 On Net Sales of Licensed Products sold or disposed of by a Sublicensee, Licensee must pay to The Regents an earned royalty in accordance with Article 5 (ROYALTIES) as if these were Licensee's Net Sales. Any royalties received by Licensee in excess of royalties due to The Regents under this Paragraph 3.3 belong to Licensee.

3.4 Licensee must provide to The Regents a copy of each Sublicense within thirty (30) days of execution and is prohibited from entering into any Side Deal with a third party where such Side Deal intentionally dilutes, diverts, conceals or misrepresents the amount of consideration paid to the Licensee in consideration for a Sublicense.

3.5 Licensee will require that each Sublicensee provide Licensee with reports that are sufficiently detailed to establish all amounts due to The Regents under this Agreement. Licensee will provide a copy of all such information submitted to Licensee by Sublicensees relevant to the computation of the payments due to The Regents under this Agreement within thirty (30) days after receipt of such information from such Sublicensee.

3.6 Upon the termination of this Agreement, each agreement containing a Sublicense (a "**Sublicense Agreement**") which provides for its survival upon such termination shall survive termination, with The Regents as the Sublicensee's direct licensor, provided that:

3.6a the respective Sublicensee is not in material breach of its Sublicense Agreement, or if then in such breach, cures such breach in accordance with the Sublicense Agreement;

3.6b such Sublicensee's payment obligations with respect to its exercise of its surviving rights to the Regents' Patent Rights (but not with respect to its exercise or enjoyment of any other rights or assets) shall be the corresponding payment obligations set forth in this Agreement;

3.6c such Sublicensee delivers to The Regents, within ninety (90) days after termination of this Agreement, a license agreement, executed by such Sublicensee and proposed thereby for execution by the Regents, that (a) is consistent with the terms and conditions set forth in this Agreement with respect to The Regents' Patent Rights, as reasonably modified to be no greater in scope than the scope of the Sublicense granted to Sublicensee with respect to territory, duration/term of the Sublicense, Licensed Products, Field of Use, etc. (e.g. if the Sublicensee's Sublicense, as in effect immediately prior to such termination, included rights and obligations only with respect to a particular Licensed Product, country in the Territory, and/or indication, the license agreement shall only include rights and obligations with respect to such a particular Licensed Product, country in the Territory, and/or indication) (such a license agreement, a "**New License Agreement**"), provided that (x) such New License Agreement shall not impose any obligations on such Sublicensee in excess of those obligations of Licensee under this Agreement corresponding to such Sublicensee's rights to The Regents' Patent Rights, and The Regents shall not be entitled to impose any additional obligations on such Sublicensee as a condition to The Regents' execution of a New License Agreement therewith; and (y) The Regents shall not have any obligations or duties to such Sublicensee in excess of those obligations or duties corresponding to, and consistent with, those of The Regents set forth in this Agreement with respect to the applicable rights of such Sublicensee to the Regents' Patent Rights;

3.6d the rights of The Regents under the New License Agreement(s) will not be less than the rights of The Regents under this Agreement, including all financial consideration and other rights of The Regents, and the duties of The Regents under the New License Agreement(s) will not be greater than the duties of The Regents under this Agreement; and

3.6e The Regents shall promptly execute any New License Agreement, provided that all of the conditions thereto for the benefit of The Regents in Paragraphs (3.6a) - (3.6d) above have been materially satisfied.

Prior to any such assignment, Licensee will furnish to The Regents the completed licensee contact information form attached hereto as "**APPENDIX C**" and incorporated herein by this reference.

4. FEES

4.1 Licensee will pay to The Regents a license issue fee of ***Dollars ($ *)** within thirty (30) days after the Effective Date. This fee is non-refundable and is not an advance against royalties.

4.2 For each Licensed Product reaching the milestones indicated below, Licensee must make the following payments ("**Milestone Payments**") to The Regents within thirty (30) days of reaching such milestone. For purposes of clarity such Milestone Payments are due from Licensee irrespective of whether the associated milestone listed below was reached by Licensee itself or a third party acting on Licensee's behalf or by a Sublicensee, Joint Venture or Affiliate. Each of the Milestone Payments listed below is payable only one time, regardless of the number of times a milestone is achieved:

4.2a * Dollars ($ *) upon *;

4.2b * Dollars ($ *) upon *;

4.2c * Dollars ($ *) upon *;

4.2d * Dollars ($ *) upon *;

4.2e * Dollars ($ *) upon *;

4.2f * Dollars ($ *) upon *;

4.2g * Dollars ($ *) upon *.

4.3 Licensee must pay to The Regents the license maintenance fee ("**License Maintenance Fee**") set forth below beginning on the one-year anniversary date of the Effective Date of this Agreement and continuing annually on each anniversary date of the Effective Date.

Anniversary Date of the Agreement Effective Date	License Maintenance Fee
* and *	* Dollars ($ *)
* and *	* Dollars ($ *)
* and each subsequent anniversary date	* Dollars ($ *)

The maintenance fee will not be due and payable on any anniversary date of the Effective Date if on that date Licensee is commercially selling a Licensed Product and paying an earned royalty to The Regents on the sales of that Licensed Product. The license maintenance fees are non-refundable and are not an advance against royalties.

*Confidential material redacted and filed separately with the Commission.

5. ROYALTIES

5.1 Licensee must pay to The Regents an earned royalty at the rate of *percent (* %) of Net Sales for Net Sales less than * US Dollars ($ *) for each calendar year and * percent (* %) of Net Sales that exceed * US Dollars ($ *) for the same calendar year ("**Earned Royalty**"). This Earned Royalty will accrue for the duration of this Agreement.

5.2 Licensee must pay Earned Royalties owed to The Regents on a quarterly basis. Licensee must pay such Earned Royalties on or before the following dates:

- February 28 (for any Final Sales that took place on or before the last day of the calendar quarter ending December 31 of the prior year);
- May 31 (for any Final Sales that took place on or before the last day of the calendar quarter ending March 31);
- August 31 (for any Final Sales that took place on or before the last day of the calendar quarter ending June 30); and
- November 30 (for any Final Sales that took place on or before the last day of the calendar quarter ending September 30).

5.3 Licensee must pay to The Regents the following minimum annual royalties (referred to below as "**Minimum Annual Royalty**") during each of the following calendar years (measured relative to the calendar year in which there was a First Commercial Sale, and referred to below as "**Calendar Years after FCS**") for the life of this Agreement:

Calendar Years after FCS	Minimum Annual Royalty
*	* Dollars ($ *)
* and *	* Dollars ($ *)
* and *	* Dollars ($ *)

Licensee must pay the Minimum Annual Royalty for a given Calendar Year after FCS to The Regents on or before February 28 of such Calendar Year after FCS. The Minimum Annual Royalty for a given Calendar Year after FCS will be credited against the Earned Royalty due and owing with respect to Net Sales made during the calendar year in which such Minimum Annual Royalty was paid. By way of example, if FCS took place on February 1, 2008, the first Calendar Year After FCS would be 2009 and the Minimum Annual Royalty would be due on or before February 28, 2009.

5.4 All monies due The Regents must be paid in United States funds. With respect to sales of Licensed Products in a currency other than United States Dollars, the royalties due The Regents will first be determined in the foreign currency of the country in which the Licensed Products were sold and, second, converted into equivalent United States Funds by using the applicable conversion rates for buying and selling United States dollars for such foreign currency as published by Reuters on the final business day of the quarter in which such sales were made.

*Confidential material redacted and filed separately with the Commission.

5.5 Any tax for the account of The Regents required to be withheld by Licensee under the laws of any foreign country must be promptly paid by Licensee for and on behalf of The Regents to the appropriate governmental authority. Licensee will use its best efforts to furnish The Regents with proof of payment of any tax. Licensee is responsible for all bank transfer charges. All payments made by Licensee in fulfilment of The Regents' tax liability in any particular country will be credited against fees or royalties due The Regents for that country.

5.6 If at any time legal restrictions prevent the acquisition or prompt remittance of United States Dollars by Licensee with respect to any country where a Licensed Product is sold, Licensee shall pay royalties due to The Regents from Licensee's other sources of United States Dollars.

5.7 If any patent or any claim included in Regents' Patent Rights is held invalid or unenforceable in a final decision by a court of competent jurisdiction from which no appeal has or can be taken, all obligation to pay royalties based on that patent or claim or any claim patentably indistinct from it will cease as of the date of that final decision. Licensee will not, however, be relieved from paying any royalties that accrued before that decision or that is based on another patent or claim not involved in that decision.

5.8 No royalties will be collected or paid on Licensed Products sold to the United States Federal Government or any agency of the United States Government. Licensee and its Sublicensee will reduce the amount charged for Licensed Products distributed to the United States Government by the amount of the royalty.

5.9 For the avoidance of doubt, in no event will the provisions of this Paragraph 5.9 apply to Net Sales subject to reduction for Combination ProductIf (a) a Licensed Product is Covered by a claim of any patent(s) or patent application(s) owned, licensed, or controlled by a non-Affiliate third party (other than The Regents) in the Territory, and Licensee, an Affiliate thereof, or any Sublicensee licenses such patent(s) or patent application(s); or (b) Licensee, an Affiliate thereof, or any Sublicensee reasonably determines that it is necessary or advisable to obtain a license to any patent(s) or patent application(s) owned, licensed, or controlled by a non-Affiliate third party (other than The Regents) in order to minimize, mitigate, or avoid the risk of infringement-related litigation with respect to the manufacture, use, Commercialization or development of a Licensed Product in the Territory ("**Third Party Royalty**"), then Licensee shall be entitled to deduct* percent (* %) of the consideration actually paid to any such non-Affiliate third party for any such rights in a particular country from any payments due to The Regents under Section 5.3 of this Agreement, provided that:

(i) Prior to giving effect to the reduction contemplated by this Paragraph 5.9, the sum of such Third Party Royalty rate and the Earned Royalty rate set forth in Paragraph 5.1 is equal to, or greater than, * percent (* %);

(ii) On an ongoing basis and prior to reduction of any Earned Royalty due The Regents under this Agreement for a given calendar quarter, Licensee first provides written evidence to The Regents of Licensee's royalty obligations to such non-Affiliate third party for such calendar quarter demonstrating that such royalty obligation is in consideration for patent rights owned or controlled by such non-Affiliate third party without a license to which Licensee would infringe such non-Affiliate third party patent rights in the manufacture, use, import, offer for sale, or sale of a Licensed Product; and

(iii) Amounts payable will not be reduced, with respect to any calendar quarter, below * percent (*%) of the amounts otherwise due to The Regents with respect to such calendar quarter without such offset.

*Confidential material redacted and filed separately with the Commission.

6. DILIGENCE

6.1 Upon execution of this Agreement, Licensee must use Commercially Reasonable Efforts to earnestly and diligently (a) develop Licensed Products and Licensed Methods; (b) bring to market Licensed Products and Licensed Methods; and (c) manufacture and sell Licensed Products and Licensed Methods in quantities sufficient to meet the market demands for them (all of the foregoing collectively "**Commercialization**"). For purposes of clarity, the requirements under the foregoing subsection (b) and (c) shall continue to apply after a First Commercial Sale. The Regents agrees that the activities of Sublicensees and contractors with respect to Licensed Products shall be deemed to be performance by Licensee of its diligence obligations.

6.2 The Regents has the right and option to either terminate this Agreement or reduce Licensee's exclusive license to a nonexclusive license if Licensee fails to perform any of the terms in Paragraph 6.1 or this Paragraph 6.2. This right, if exercised by The Regents, supersedes the rights granted in Article 2 (GRANT).

6.2a Licensee will * within * (*) years of the Effective Date.

6.2b Licensee will * within * (*) years of the Effective Date.

6.2c Licensee will * within * (*) years of the Effective Date.

6.2d Licensee will * within * (*) years of the Effective Date.

6.3 Without limiting Licensee's obligations under Paragraphs 6.1 and 6.2 of this Agreement, Licensee has the sole discretion for making all decisions as to how to Commercialize any Licensed Product.

7. PATENT FILING, PROSECUTION AND MAINTENANCE

7.1 **Patent Prosecution**

7.1a Regents' Patent Rights will be held in the name of The Regents and obtained with counsel of The Regents' choice. The Regents shall control all Patent Actions and all decisions with respect to Patent Actions and will reasonably consider any comments or suggestions by Licensee with respect to Patent Actions. The Regents is entitled to take action to preserve rights and minimize costs whether or not Licensee has commented, and will use reasonable efforts to file, prosecute and maintain Regents' Patent Rights and to not allow any Regents' Patent Rights for which Licensee is licensed and is underwriting the costs of to lapse or become abandoned without Licensee's written authorization under this Article 7, except for the filing of continuations, divisionals, or the like that substitute for the lapsed application. The Regents shall have no requirement to file, prosecute, or maintain Regents' Patent Rights if Licensee is more than * (*) days overdue to pay at least * dollars ($ *) in invoiced Patent Cost obligations as set forth in this Article 7 and does not cure such breach.

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7.1b The Regents will (a) furnish the Licensee with copies of all correspondence relating to the Regents' Patent Rights from the United States Patent and Trademark Office (USPTO) and any other patent office, as well as copies of all proposed responses to such correspondence in time for Licensee to review and comment on such response; (b) give Licensee an opportunity to review the text of each patent application relating to Regents' Patent Rights before filing; (c) consult with Licensee with respect thereto; and (d) supply Licensee with a copy of the application as filed, together with notice of its filing date and serial number. The Regents shall give Licensee the opportunity to provide comments on and make requests of The Regents concerning the preparation, filing, prosecution, protection and maintenance of the Regents' Patent Rights, and shall reasonably consider such comments and requests.

7.1c Licensee has the right to request Patent Actions via a written request to The Regents ninety (90) days prior to the deadline set by the patent office in the territory such Patent Action is to take place in (a "**Patent Prosecution Request**"). The absence of a given Patent Prosecution Request by such deadline will be considered an election not to secure the patent rights associated with the specific phase of patent prosecution in such territory ("**Abandoned Patent Rights**"), and such Abandoned Patent Rights will not be part of Regents' Patent Rights and therefore not subject to this Agreement, and Licensee will have no further rights or license to them. The Regents will have the right to file patent applications at its own expense in any territory with respect to Abandoned Rights.

7.2 **Past Patent Costs**

Licensee will bear all Patent Costs incurred prior to the term of this Agreement of approximately ***Dollars ($ *)** ("**Past Patent Costs**"). Licensee must send payment for such Past Patent Costs to The Regents within thirty (30) days of Licensee's receipt of an invoice for these costs.

7.3 **Ongoing Patent Costs**

Licensee will bear all Patent Costs incurred during the term of this Agreement ("**Ongoing Patent Costs**") and shall pay in advance The Regents' patent counsel's estimated costs for undertaking a Patent Action, which estimates The Regents will share with Licensee, before The Regents authorizes its patent counsel to proceed ("**Advanced Payment**"). Fees and expenses that are due to incidentals (for example photocopy charges or long distance phone charges) are not included within such estimate unless expressly so stated, nor is Licensee's interaction with The Regents' counsel such as by phone calls, e-mails, and in person meetings. The absence of this Advanced Payment will be considered an election not to secure the patent rights associated with the specific phase of patent prosecution in such territory, and such patent application(s) and patent(s) will not be part of Regents' Patent Rights and therefore not subject to this Agreement, and Licensee will have no further rights or license to them.

7.4 **Termination of Patent Prosecution by Licensee**

7.4a Licensee may terminate its obligations with respect to any or all of Regents' Patent Rights by providing written notice to The Regents ("**Patent Termination Notice**"). Termination of Licensee's obligations with respect to such patent application or patent will be effective three (3) months after receipt of such Patent Termination Notice by The Regents. The Regents will use reasonable efforts to curtail Patent Costs chargeable to Licensee under this Agreement after this Patent Termination Notice is received by The Regents. The Regents may continue prosecution or maintenance of these application(s) or patent(s) at its sole discretion and expense, and such application(s) and patent(s) will not be part of Regents' Patent Rights and therefore not subject to this Agreement, and Licensee will have no rights or license to them.

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7.5 **Patent Extensions**

7.5a Licensee will apply for an extension of the term of any patent included within The Regents' Patent Rights, if appropriate in Licensee's reasonable discretion after discussion with The Regents, under the Drug Price Competition and Patent Term Restoration Act of 1984 and/or European, Japanese and other foreign counterparts. Licensee shall prepare all documents, and The Regents agrees to execute the documents and to take additional action as Licensee reasonably requests in connection therewith. Licensee will be liable for all documented out-of-pocket costs relating to such application.

7.5b If either party (in the case of The Regents, the licensing officer responsible for administration of this Agreement) receives notice pertaining to the infringement or potential infringement of any issued patent included with Regents' Patent Rights under the Drug Price Competition and Patent Term Restoration Act of 1984 (and/or foreign counterparts of this law) then that party shall within ten (10) days notify the other party after receipt of such notice of infringement.

8. PATENT INFRINGEMENT

8.1 In the event that The Regents (to the extent of the actual knowledge of the licensing professional responsible for the administration of this Agreement) or Licensee learns of infringement of any Regents' Patent Rights licensed under this Agreement, the knowledgeable party will provide the other with (i) written notice of such infringement and (ii) evidence of such infringement available to it (the "**Infringement Notice**"). During the period in which, and in the jurisdiction where, Licensee has exclusive rights under this Agreement, except as set forth below, neither The Regents nor Licensee will notify a third party (including the infringer) of infringement or put such third party on notice of the existence of any Regents' Patent Rights without first meeting, either in-person or by teleconference, within fifteen (15) business days of receipt of the respective Infringement Notice to discuss a reasonable plan of action (the "**Infringement Meeting**"). Notwithstanding the foregoing, in the event the Infringement Meeting does not occur within fifteen (15) business days following the date of receipt of the respective Infringement Notice, (a) Licensee shall be permitted to notify third parties (including the infringer) of such infringement and/or put such third party on notice of the existence of any Regents' Patent Rights, and (b) if Licensee provides any such notice to a third party within thirty (30) days following the date of the respective Infringement Notice, Licensee shall notify The Regents of the same at or prior to the time Licensee provides such notice to a third party. If, before the earlier of the Infringement Meeting or the expiration of the above-mentioned fifteen (15) business day period, Licensee puts such infringer on notice of the existence of any Regents' Patent Rights with respect to such infringement without first obtaining the written consent of The Regents and if a declaratory judgment action is filed by such infringer against The Regents, then Licensee's right to initiate a suit against such infringer for infringement under Paragraph 8.2 below will terminate immediately without the obligation of The Regents to provide notice to Licensee. Both The Regents and Licensee will use their diligent efforts to cooperate with each other to terminate such infringement without litigation.

8.2 Licensee shall have the exclusive, first and primary right, but not the obligation, to institute suit, prosecute and control any action or proceeding with respect to such infringement against the infringer, provided that (i) Licensee shall not institute a suit against the infringer with respect to such infringement prior to the respective Infringement Meeting unless such Infringement Meeting does not occur within fifteen (15) business days following the date of the respective Infringement Notice, and (ii) Licensee shall provide ten (10) days' prior written notice to The Regents if it is going to institute such a suit within thirty (30) days following the date of the respective Infringement Notice. Subject to Article 8.6, Licensee shall be free to enter into a settlement, consent judgment, or other voluntary disposition with respect to any such action. The Regents may voluntarily join such suit at its own expense, but may not thereafter commence suit against the infringer for the acts of infringement that are the subject of Licensee's suit or any judgment rendered in the suit. Licensee may not join The Regents in a suit initiated by Licensee without The Regents' prior written consent, such consent subject to the approval of the UC Board of Regents. The Regents will support any such request made to the UC Board of Regents, and will make best efforts to ensure a prompt response to such request.. If The Regents is joined in any litigation instituted by Licensee, then Licensee will pay any documented costs incurred by The Regents arising out of such suit, including but not limited to, any legal fees of counsel that The Regents selects and retains to represent it in the suit.

8.3 If, within one eighty (180) days following the date the Infringement Notice is received, infringing activity of potential commercial significance by the infringer has not been abated and if Licensee has not brought suit against the infringer or taken other legal action to abate such infringement, then The Regents may institute suit for patent infringement against the infringer. If The Regents institutes such suit, then Licensee may not join such suit without The Regents' consent and may not thereafter commence suit against the infringer for acts of infringement that are subject to The Regents' suit or any judgment rendered in that suit. The Regents shall not join Licensee in a suit initiated by The Regents' without Licensee's prior written consent.

8.4 Any recovery or settlement received in connection with any suit will first be shared by The Regents and Licensee equally to cover any litigation costs each incurred and next shall be paid to The Regents or Licensee to cover any litigation costs it incurred in excess of the litigation costs of the other. In any suit initiated by Licensee, any recovery in excess of litigation costs will be shared between Licensee and The Regents as follows:

The Regents will receive * percent (* %) of the recovery, except for any portion of the recovery or settlement attributable and paid as enhanced damages for willful infringement, for which The Regents will receive * percent (* %) of the recovery.

In any suit initiated by The Regents in conformity with the provisions of this Article 8, any recovery in excess of litigation costs will belong to The Regents. The Regents and Licensee agree to be bound by all final and non-appealable determinations of patent infringement, validity and enforceability (but no other issue) resolved by any adjudicated judgment in a suit brought in compliance with this Article 8 (PATENT INFRINGEMENT).

8.5 Licensee's rights under this Article 8 may be exercised by its Sublicensees to the extent provided in the applicable Sublicense Agreement.

8.6 Any agreement made by Licensee for purposes of settling litigation or other dispute shall comply with the requirements of Article 3 (SUBLICENSES) of this Agreement. No settlement, consent judgment or other voluntary disposition of any action described in this Article 8 shall (i) materially limit the scope, validity, or enforceability of patents included in the Regents' Patent Rights or (ii) admit fault or wrongdoing on the part of The Regents or Licensee, without the prior written approval of the Regents and Licensee, which, such approval not to be unreasonably withheld.

8.7 Each party will cooperate with the other in litigation proceedings instituted hereunder but at the expense of the party who initiated the suit (unless such suit is being jointly prosecuted by the parties).

8.8 Any litigation proceedings will be controlled by the party bringing the suit, except that The Regents may be represented by counsel of its choice in any suit brought by Licensee.

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9. PROGRESS AND ROYALTY REPORTS

9.1 Beginning January 31, 2018, and thereafter until the First Commercial Sale of a Licensed Product, Licensee must submit to The Regents annual progress reports summarizing Licensee's (and any Affiliates', Joint Ventures', and Sublicensees') activities related to the development and testing of all Licensed Products and the obtaining of the governmental approvals necessary for marketing.

9.2 Each progress report must include all of the following for each semi-annual period:

9.2a Summary of work completed.
9.2b Key scientific discoveries.
9.2c Summary of work in progress.
9.2d Current schedule of anticipated events or milestones.
9.2e An updated listing of any and all Sublicenses granted by Licensee or any Sublicensees.
9.2f The names and addresses of all Sublicensees, and a current and valid phone number and e-mail address for a principal point of contact at each such Sublicensee who is responsible for administering the Sublicense.
9.2g Number of company employees.

9.3 After the First Commercial Sale of each Licensed Product, Licensee must submit quarterly royalty reports to The Regents by February 28, May 31, August 31 and November 30 of each year (i.e., within sixty (60) days from the end of each calendar quarter). Licensee will state in its royalty report if it had no sales of any Licensed Product in the applicable quarter. Each royalty report must cover Licensee's and all Sublicensees' activities for most recently completed calendar quarter and shall include the completed Royalty Statement attached hereto as "**APPENDIX B**" and incorporated herein by this reference, showing:

9.3a Number of each Licensed Product sold by Licensee and any Sublicensees and the corresponding commercial name of each such Licensed Product;
9.3b Gross sales, Final Sales and Net Sales of each Licensed Product made by Licensee and any Sublicensees;
9.3c Earned Royalties payable to The Regents;
9.3d The method and currency exchange rates (if any) used to calculate the Earned Royalty based on Net Sales;
9.3e A specification of all deductions and their dollar value that were taken to arrive at Net Sales;
9.3f A list of all countries in which Licensed Products are being manufactured; and
9.3g Date of First Commercial Sale (this need only be reported in the first royalty report following such First Commercial Sale).

9.4 The Regents shall have the right to terminate this Agreement in accordance with Article 12 (TERMINATION BY THE REGENTS) if Licensee does not provide progress reports and royalty reports in accordance with this Article 9.

9.5 Because of the provisions under 35 U.S.C. §41(h), Licensee must notify The Regents if Licensee or any of its Sublicensees ceases to be a small entity (as defined by the United States Patent and Trademark Office).

10. BOOKS AND RECORDS

10.1 Licensee must keep accurate books and records necessary to verify the accuracy of payments hereunder. Licensee must preserve such books and records for at least five (5) years from the date of the royalty payment to which they pertain. Such books and records will be open, not more than once per calendar year, to examination by representatives or agents of The Regents during regular office hours to verify the accuracy of payments hereunder, provided that such accountant first enters into a nondisclosure agreement at least as restrictive as Article 30 (CONFIDENTIALITY) of this Agreement with Licensee. The auditor will be prohibited, and shall not disclose any information to The Regents other than whether (i) the payments made hereunder were not accurate and (ii) if such payments were not accurate, the amount of the inaccuracy. Licensee will pay documented fees and expenses of such audit if an underpayment of more than * percent (* %) of the total payments due The Regents within a given year under this Agreement is discovered (in each case pursuant to the final, non-appealable determination of a court of competent jurisdiction), otherwise The Regents will pay the fees and expenses of inspections. Payment owed by Licensee hereunder for underpayment of royalties will be due within thirty (30) days of the later of the termination of The Regent's audit or court determination, and payment by Licensee for any examination costs incurred by The Regents will be due within thirty (30) days from the date of The Regents' invoice. If the accountant discovers an overpayment of amounts due hereunder, Licensee may credit the amount of such overpayment against future royalty payments that may be due and payable to The Regents. All information accessed or received by an accountant in connection with this Paragraph 10.1 shall be deemed confidential information of Licensee in accordance with Article 30.

11. LIFE OF THE AGREEMENT

11.1 Unless otherwise terminated by operation of law or by acts of the parties in accordance with the terms of this Agreement, the term of this Agreement (the "**Term**") shall commence on the Effective Date recited on page one and remain in effect until there are no Valid Claims of Regents' Patent Rights.

11.2 Upon termination of this Agreement, Licensee will have no further right to make, have made, use or sell any Licensed Product except as provided in Article 14 (DISPOSITION OF LICENSED PRODUCTS ON HAND UPON TERMINATION).

11.3 Any expiration or termination of this Agreement will not affect the rights and obligations set forth in the following Articles:

Article 1	DEFINITIONS;
Paragraph 3.6	Survival of Sublicenses;
Article 10	BOOKS AND RECORDS;
Article 14	DISPOSITION OF LICENSED PRODUCTS ON HAND UPON TERMINATION;
Article 16	USE OF NAMES AND TRADEMARKS;
Article 17	LIMITED WARRANTY;
Article 18	INDEMNIFICATION;
Article 19	LIMITATION OF LIABILITY;
Article 24	FAILURE TO PERFORM;
Article 25	GOVERNING LAWS; and
Article 30	CONFIDENTIALITY.

*Confidential material redacted and filed separately with the Commission.

12. TERMINATION BY THE REGENTS

12.1 If Licensee violates or fails to perform any material term of this Agreement, then The Regents may give written notice of the default ("**Notice of Default**") to Licensee. If Licensee does not repair such default within sixty (60) days after receipt by Licensee of the Notice of Default ("**Period to Cure**"), then The Regents has the right to terminate this Agreement and the License by a second written notice ("**Notice of Termination**") to Licensee. If The Regents sends a Notice of Termination to Licensee, then this Agreement automatically terminates on the effective date of this notice. Termination does not relieve Licensee of its obligation to pay any monies owed at the time of the Termination Effective Date, and does not impair any accrued right of The Regents.

13. TERMINATION BY LICENSEE

13.1 Licensee has the right at any time to terminate this Agreement in whole or with respect to any portion of Regents' Patent Rights by giving written notice to The Regents. This notice of termination will be subject to Article 20 (NOTICES) and will be effective thirty (30) days after the effective date of the notice ("**Termination Effective Date**").

13.2 Any termination in accordance with Paragraph 13.1 does not relieve Licensee of any obligation or liability accrued prior to termination. Nor does termination rescind anything done by Licensee or any payments made to The Regents prior to the effective date of termination. Termination does not affect in any manner any rights of The Regents arising under this Agreement prior to termination.

14. DISPOSITION OF LICENSED PRODUCTS ON HAND UPON TERMINATION

14.1 Upon termination of this Agreement by Licensee, Licensee may continue to sell any previously made Licensed Products during the one hundred eighty (180) days following the Termination Effective Date.

14.2 Upon termination of this Agreement by The Regents for (i) failure to pay patent costs per the terms of this Agreement, or (ii) failure to provide progress or royalty reports in the form and at the times specified in this Agreement, Licensee may continue to sell all previously made Licensed Products during the one hundred eighty (180) days following the effective date of the Notice of Termination. Licensee will not have this right if this Agreement is terminated for any other causes.

14.3 Licensee must submit royalty reports on the sale of Licensed Products allowed under this Article 14 in accordance with Article 9 (PROGRESS AND ROYALTY REPORTS) and must pay royalties on such sales at the same rate and at the same time provided in this Agreement for royalties on sales of Licensed Products made during the term of this Agreement.

14.4 Except as set forth in this Article 14 (DISPOSITION OF LICENSED PRODUCTS ON HAND UPON TERMINATION), Licensee will not otherwise make, sell, offer for sale, or import Licensed Products after termination of this Agreement by Licensee or The Regents.

15. PATENT MARKING

15.1 Licensee shall comply with all patent marking laws applicable to Licensed Products made, used or sold under the terms of this Agreement, or their containers. Licensee shall be responsible for all monetary and legal liabilities arising from or caused by failure to abide by applicable patent marking laws.

16. USE OF NAMES AND TRADEMARKS

16.1 Licensee will not use any name, trade name, trademark or other designation of The Regents' or its employees (including contraction, abbreviation or simulation of any of the foregoing) in advertising, publicity or other promotional activity. Unless required by law, Licensee is expressly prohibited from using the name "The Regents of the University of California" or the name of any campus of the University of California in advertising, publicity, or other promotional activity, without written permission of The Regents.

17. LIMITED WARRANTY

17.1 The Regents represents and warrants that it has the lawful right to grant the licenses granted hereunder to Licensee.

17.2 This license and the associated invention are provided **WITHOUT WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED. THE REGENTS MAKES NO REPRESENTATION OR WARRANTY THAT ANY LICENSED PRODUCT WILL NOT INFRINGE ANY PATENT OR OTHER PROPRIETARY RIGHT.**

17.3 Nothing in this Agreement will be construed as:

17.3a A warranty or representation by The Regents as to the validity or scope of any Regents' Patent Rights.

17.3b A warranty or representation that anything made, used, sold or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of patents, copyrights, trademarks or any other forms of intellectual property rights or tangible property rights of third parties.

17.3c Obligating The Regents to bring or prosecute actions or suits against third parties for patent, copyright or trademark infringement except as provided in Article 8 (PATENT INFRINGEMENT).

17.3d Conferring by implication, estoppel or otherwise any license or rights under any patents of The Regents other than Regents' Patent Rights as defined herein, regardless of whether such patents are dominant or subordinate to Regents' Patent Rights.

17.3e Obligating The Regents to furnish any know-how not provided in Regents' Patent Rights.

18. INDEMNIFICATION

18.1 To the maximum extent permitted by law, Licensee will, and will require its Sublicensees to, indemnify, hold harmless and defend The Regents, The Regents' officers, employees, and agents, the sponsors of the research that led to the Invention, the inventors of the patents and patent applications in Regents' Patent Rights and their respective employers (the "**Indemnitees**")from and against any and all liability, claims, suits, losses, damages, costs, fees and expenses resulting from or arising out of exercise of this license or any Sublicense; provided, however, that Licensee and Sublicensees will have no obligations under this Paragraph 18.1 with respect to claims, demands or actions arising out of an Indemnitee's gross negligence, intentional misconduct or breach of this Agreement. Indemnification includes but is not limited to products liability. If The Regents, in its sole discretion, believes that there will be a conflict of interest or it will not otherwise be adequately represented by counsel chosen by Licensee to defend The Regents in accordance with this Paragraph 18.1, then The Regents may retain counsel of its choice to represent it, and Licensee will pay all documented expenses for such representation. Licensee's agreement to indemnify, defend, and hold harmless under this Section 18.1 is conditioned upon the Indemnitee (a) providing written notice to Licensee of any claim, demand or action arising out of the indemnified matter as soon as reasonably possible; (b) permitting Licensee (or Sublicensee, as the case may be) to assume control over the investigation of, preparation and defense against, and settlement or voluntary disposition of any such claim, demand or action; (c) assisting the Licensee (or Sublicensee, as the case may be), in the investigation, preparation, defense, and settlement or voluntary disposition of any such claim, demand or action; and (d) not compromising, settling, or entering into any voluntary disposition of any such claim, demand or action without the Licensee's (or Sublicensee's, as the case may be) prior written consent; provided, however, that, if the Indemnitee fails to promptly notify Licensee pursuant to the foregoing clause (a), Licensee (or Sublicensee, as the case may be) will only be relieved of its indemnification obligation to the extent materially prejudiced by such failure.

18.2 Licensee, at its sole cost and expense, must insure its activities in connection with the work under this Agreement and obtain, keep in force and maintain Commercial Form General Liability Insurance (contractual liability included) with limits as follows:

18.2a	Each occurrence	$ * .
18.2b	Products/completed operations aggregate	$ * .
18.2c	Personal and advertising injury	$ * .
18.2d	General aggregate	$ * .

18.3 If the above insurance is written on a claims-made form, it shall continue for * (*) years following termination or expiration of this Agreement. The insurance shall have a retroactive date of placement prior to or coinciding with the Effective Date of this Agreement.

18.4 Licensee will obtain, keep in force and maintain Worker's Compensation Insurance as legally required in the jurisdiction in which Licensee is doing business.

18.5 Licensee expressly understands, however, that the coverages and limits in Paragraph 18.2 do not in any way limit Licensee's liability or indemnification obligations. Licensee's insurance must:

18.5a State that The Regents of the University of California is endorsed as an additional insured under the coverages listed in Paragraph 18.2.

18.5b Include a provision that the coverages will be primary and will not participate with nor will be excess over any valid and collective insurance or program of self-insurance carried or maintained by The Regents.

Licensee shall provide thirty (30) days advance written notice to The Regents of any material change to the insurance required under this Agreement including but not limited to cancellation of any of its insurance coverages, nonpayment of premium, purchase of new or substitute coverages.

18.6 The Regents shall notify Licensee in writing of any claim or suit brought against The Regents in respect of which The Regents intends to invoke the provisions of this Article 18 (INDEMNIFICATION). To the extent that The Regents elect to permit Licensee authority to defend or settle such claim or suit, Licensee may not admit liability or wrongdoing on the part of The Regents without The Regents' prior express written consent. Licensee shall keep The Regents informed on a current basis of its defense of any claims under this Article 18 (INDEMNIFICATION).

*Confidential material redacted and filed separately with the Commission.

18.7 Licensee must furnish The Regents with (i) valid certificates of insurance evidencing compliance with all requirements of this Agreement and (ii) additional insured endorsements for Licensee's applicable policies of insurance naming "The Regents of the University of California" as an additional insured. Per occurrence forms, including ISO Form CG or its equivalent, are acceptable additional insured endorsement forms. Naming The Regents as an additional insured on the certificates of insurance alone shall not be considered as compliance with The Regents' insurance requirements. Licensee must furnish both such documents within thirty (30) days of the execution of the Agreement and once per year thereafter for the duration of this Agreement. The Regents has the right to terminate this Agreement in accordance with Article 12 (TERMINATION BY THE REGENTS) should Licensee fail to provide items (i) and (ii) by the dates set forth above.

19. LIMITATION OF LIABILITY

19.1 **SUBJECT TO PARAGRAPH 18.1, NEITHER PARTY WILL BE LIABLE FOR ANY LOST PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS OR SERVICES, LOST BUSINESS, ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT OR ANY INDIRECT, INCIDENTAL, CONSEQUENTIAL, PUNITIVE OR OTHER SPECIAL DAMAGES SUFFERED BY THE OTHER PARTY ARISING OUT OF OR RELATED TO THIS AGREEMENT FOR ALL CAUSES OF ACTION OF ANY KIND (INCLUDING TORT, CONTRACT, NEGLIGENCE, STRICT LIABILITY AND BREACH OF WARRANTY) EVEN IF THE REGENTS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE REGENTS WILL NOT BE LIABLE FOR ANY DIRECT DAMAGES SUFFERED BY LICENSEE, SUBLICENSEES, JOINT VENTURES, OR AFFILIATES ARISING OUT OF OR RELATED TO PATENT RIGHTS IN CONNECTION WITH THE ASSIGNMENT OR LICENSE OF SUCH PATENT RIGHTS BY THE REGENTS' INVENTORS TO THIRD PARTIES.**

20. NOTICES

20.1 Any notice, progress report, royalty report or payment (except for Advanced Payments due under this Agreement) required to be given to either party must be sent to the respective address given below and is effective: (a) on the date of delivery if delivered in person, (b) five (5) days after mailing if mailed by first-class certified mail, postage paid, or (c) on the next business day if sent by overnight delivery. Either party may change its designated address by written notice.

For Licensee:
Mustang Bio, Inc.
c/o Fortress Biotech, Inc.
2 Gansevoort, 9th Floor
New York, NY 10014
Attention: Legal Department

For The Regents:
The Regents of the University of California
University of California, Los Angeles
Technology Development Group
10889 Wilshire Boulevard, Suite 920
Los Angeles, CA 90095-7191
Attention: Sr. Director of Licensing
Ref: UCLA Case Nos. * & *

*Confidential material redacted and filed separately with the Commission.

A copy of any such notice that relates to equity, or instruments convertible into equity, issued or sold pursuant to the Agreement has will also be sent via email to: campus.investments@ucop.edu.

All Advanced Payments due under this Agreement shall be sent via wire transfer as follows. In order to ensure that funds are properly credited to your account, please reference invoice number or UC Control Number on all wire transfers.

Bank of America
100 West 33rd Street
New York, NY 10001
Attn: OTT Depository Account No. *
ABA Transit Routing Number: *
Beneficiary Name: Regents of the University of California
SWIFT Code: B of A *

20.2 Licensee shall furnish to The Regents the completed licensee contact information form attached hereto as "**APPENDIX C**" concurrent to execution of the Agreement and incorporated herein by this reference, showing:

20.2a The Progress Reports Contact (i.e. the contact responsible for ensuring that such progress reports are submitted to The Regents);

20.2b The Patent Prosecution Contact to whom patent prosecution correspondence should be sent to; and

20.2c The Financial Contact (i.e. the contact responsible for ensuring that payments are made under this Agreement to The Regents).

21. ASSIGNABILITY

21.1 **Consent to Assign**
This Agreement is binding upon and inures to the benefit of The Regents, its successors and permitted assignees. This Agreement is personal to Licensee and assignable by Licensee only with the prior written consent of The Regents; provided, however, that Licensee is permitted to assign this Agreement without the consent of The Regents if the assignment of this Agreement is to: (a) an Affiliate of Licensee; or (b) in conjunction with the transfer to a non-Affiliate third party of all or substantially all of the business or assets of Licensee to which this license relates.

Conditions of Assignment
No later than thirty (30) days following the effective date of any assignment of this Agreement all of the following terms and conditions shall be met and if they are not then this Agreement and any assignment thereof will be considered null and void with no further notice from The Regents.

(i) Licensee shall inform The Regents in writing of the identity of the proposed acquirer or successor entity and shall provide updated contact information in writing to The Regents for such acquirer or successor entity by updating and submitting in writing to The Regents Appendix C of this Agreement;

(ii) The proposed acquirer or successor entity shall agree in writing to be bound by all the terms and conditions of this Agreement as if such acquirer or successor entity were the original Licensee and a copy of such written agreement shall be provided to The Regents by Licensee or the proposed acquirer or successor entity; and

(iii) The proposed acquirer or successor entity shall provide a written statement to The Regents that they assume responsibility for any and all liabilities that arise under this Agreement on and after the effective date of the assignment of this Agreement.

22. LATE PAYMENTS

22.1 For each royalty payment or fee not received by The Regents when due, Licensee must pay to The Regents a simple interest charge of *percent (* %) per annum to be calculated from the date payment was due until it was actually received by The Regents. For purposes of clarity, this Article 22 (LATE PAYMENTS) does not limit any rights of The Regents under this Agreement arising from the failure by Licensee to make such payments when due.

23. WAIVER

23.1 The waiver of any breach of any term of this Agreement does not waive any other breach of that or any other term.

24. FAILURE TO PERFORM

24.1 If either party takes legal action against the other because of a failure of performance due under this Agreement, then the prevailing party is entitled to reasonable attorney's fees in addition to costs and necessary disbursements.

25. GOVERNING LAW

25.1 **THIS AGREEMENT IS TO BE INTERPRETED AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA**, but the scope and validity of any patent or patent application will be governed by the applicable laws of the country of the patent or patent application.

26. GOVERNMENT APPROVAL OR REGISTRATION

26.1 If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee will assume all legal obligations to do so. Licensee will notify The Regents if it becomes aware that this Agreement is subject to a United States or foreign government reporting or approval requirement. Licensee will make all necessary filings and pay all costs including fees, penalties, and all other out-of-pocket costs associated with such reporting or approval process.

*Confidential material redacted and filed separately with the Commission.

27. COMPLIANCE WITH LAWS

27.1 Licensee will comply with all applicable laws and regulations in performing its obligations hereunder and in its use, manufacture, offer for sale, sale or import of Licensed Products or practice of Licensed Methods, including, but not limited to, obtaining and maintaining all necessary governmental approvals for the commercialization of Licensed Products and Licensed Methods. Licensee will observe all applicable United States and foreign laws with respect to the transfer of Licensed Products and related technical data and the provision of services using Licensed Methods to foreign countries, including and without limitation, the International Traffic in Arms Regulations (ITAR) and the Export Administration Regulations. Licensee will manufacture Licensed Products and practice the Licensed Methods in compliance with all applicable government importation laws and regulations of a country into which Licensed Products are imported.

28. PREFERENCE FOR UNITED STATES INDUSTRY

28.1 Because this Agreement grants an exclusive right to a particular use of the Invention, Licensee must manufacture in the United States any products embodying this Invention or produced through the Invention's use to the extent required by 35 U.S.C. §§200-212.

29. FORCE MAJEURE

29.1 Except for Licensee's obligation to make any payments to The Regents hereunder, the parties shall not be responsible for any failure to perform due to the occurrence of any events beyond their reasonable control that render their performance impossible or onerous, including, but not limited to: accidents (environment, toxic spill, etc.); acts of God; biological or nuclear incidents; casualties; earthquakes; fires; floods; governmental acts; orders or restrictions; inability to obtain suitable and sufficient labor, transportation, fuel and materials; local, national or state emergency; power failure and power outages; acts of terrorism; strike; and war.

29.2 Either party to this Agreement, however, will have the right to terminate this Agreement upon thirty (30) days' prior written notice if either party is unable to fulfill its obligations under this Agreement due to any of the causes specified in Paragraph 29.1 for a continuous period of * (*) year.

30. CONFIDENTIALITY

30.1 If either party discloses confidential information to the other party, the disclosing party will designate this information as confidential by appropriate legend or instruction, and the receiving party will:

30.1a Use the same degree of care to maintain the secrecy of the confidential information as it uses to maintain the secrecy of its own information of like kind.

30.1b Use the confidential information only to accomplish the purposes of this Agreement or for audit or management purposes.

30.1c Ensure that any employees, customers, distributors and other agents to whom the confidential information is disclosed are bound to it by similar obligations of confidence and to make such disclosure only as required to accomplish the purposes of this Agreement.

*Confidential material redacted and filed separately with the Commission.

30.2 Neither party will have any confidentiality obligation with respect to the confidential information belonging to or disclosed by the other party that:

30.2a the receiving party can demonstrate by written records was previously known to it;

30.2b the receiving party lawfully obtained from sources under no obligation of confidentiality;

30.2c is or becomes publicly available other than through an act or omission of the receiving party or any of its employees;

30.2d the receiving party independently develops without the use of or reference to the confidential information as demonstrated by written records; or

30.2e is required to be disclosed under the California Public Records Act, governmental audit requirement or other requirement of law.

30.3 The provisions of this Article 30 (CONFIDENTIALITY) will continue in effect for * (*) years after expiration or termination of this Agreement.

30.4 The Regents is free to release the terms and conditions of this Agreement to any and all of the following: (i) the Inventors, (ii) employees of The Regents, (iii) individual Regents, and (iv) the non-profit sponsors of the research that led to the Invention. If such release is made, then The Regents shall give notice of the confidential nature of such information.

30.5 If a third party inquires of The Regents as to whether a license to Regents' Patent Rights is available, then The Regents may disclose the existence of this Agreement and the extent of the grant in Article 2 (GRANT) and Article 3 (SUBLICENSES) to such third party, but will not disclose the name of Licensee or any other negotiated terms or conditions of this Agreement to such third party, except where The Regents is required to release information under the California Public Records Act, a governmental audit requirement or other applicable law.

30.6 Licensee hereby grants permission for The Regents (including UCLA) to include Licensee's name, Company Logo, and a link to Licensee's website in annual reports and websites that showcase technology transfer-related stories as well as links to any publicly-available news stories about Licensee on such websites.

31. MISCELLANEOUS

31.1 The headings of the several sections are inserted for convenience of reference only and are not intended to be a part of, or to affect the meaning or interpretation of, this Agreement.

31.2 This Agreement is not binding upon the parties until it has been signed below on behalf of each party, in which event it becomes effective as of the date recited on page one.

31.3 No amendment or modification of this Agreement will be valid or binding upon the parties unless made in writing and signed by each party.

31.4 This Agreement and Appendix A (REGENTS' PATENT RIGHTS) embodies the entire understanding of the parties and supersedes all previous communications, representations or understandings, either oral or written, between the parties relating to the subject matter hereof.

31.5 If any part of this Agreement is for any reason found to be unenforceable, all other parts nevertheless remain enforceable as long as a party's rights under this Agreement are not materially affected. In lieu of the unenforceable provision, the parties will substitute or add as part of this Agreement a provision that will be as similar as possible in economic and business objectives as was intended by the unenforceable provision.

31.6 No provisions of this Agreement are intended or shall be construed to confer upon or give to any person or entity other than The Regents and the Licensee any rights, remedies or other benefits under, or by reason of, this Agreement.

31.7 In performing their respective duties under this Agreement, each of the parties will be operating as an independent contractor. Nothing contained herein will in any way constitute any association, partnership, or joint venture between the parties hereto, or be construed to evidence the intention of the parties to establish any such relationship. Neither party will have the power to bind the other party or incur obligations on the other party's behalf without the other party's prior written consent.

32. COUNTERPARTS AND EXECUTION

32.1 This Agreement may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. Facsimile, Portable Document Format (PDF) or photocopied signatures of the Parties will have the same legal validity as original signatures.

Both The Regents and Licensee have executed this Agreement in duplicate originals by their authorized officers on the dates written below:

MUSTANG BIO, INC.

By /s/ Michael S. Weiss
Signature
Name: Michael S. Weiss
Title: President & CEO
Date: March 17, 2017

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

By /s/ Emily W. Loughran
Signature
Name: Emily W. Loughran
Title: Sr. Director of Licensing
Date: March 10, 2017

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

By /s/ Amir Naiberg
Signature
Name: Amir Naiberg
Title: Assoc. Vice Chancellor and President & CEO
Date: March 13, 2017

APPENDIX A

REGENTS' PATENT RIGHTS

1) **UCLA CASE NO. * : "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*"**

Provisional Patent Application No. * entitled, "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*", filed March 20, 2006 (UCLA Case No. *) by Dr(s). Anna Wu and Robert E. Reiter, and assigned to The Regents.

EXPIRED. APPLICATION CLAIMING PRIORITY:

Patent Cooperation Treaty Application No. * entitled, "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*", filed on March 20, 2007 (UCLA Case No. *) by Drs. Anna Wu and Robert E. Reiter, and assigned to The Regents.

EXPIRED. APPLICATIONS CLAIMING PRIORITY:

Canadian Patent Application No. * entitled, "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*", filed on March 20, 2007 (UCLA Case No. *) by Drs. Anna Wu and Robert E. Reiter, and assigned to The Regents.

Japanese Patent Application No. * entitled, "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*", filed on March 20, 2007 (UCLA Case No. *) by Drs. Anna Wu and Robert E. Reiter, and assigned to The Regents.

Patent No. * in the territories of Belgium, France, Germany, Ireland, Italy, Luxembourg, Spain, Switzerland, The Netherlands, and the United Kingdom, entitled, "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*", issued on March 11, 2011 from European Patent Application No. * filed on March 20, 2007 (UCLA Case No. UCLA Case No. *) by Drs. Anna Wu and Robert E. Reiter, and assigned to The Regents.

United States Patent No. * entitled, "*Engineered Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting*", issued on January 27, 2015 from U.S. Patent Application No. * filed on March 20, 2007 (UCLA Case No. UCLA Case No. *) by Drs. Anna Wu and Robert E. Reiter, and assigned to The Regents.

2) **UCLA CASE NO. * : "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*"**

Provisional Patent Application No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", filed September 4, 2007 (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

*Confidential material redacted and filed separately with the Commission.

EXPIRED. APPLICATION CLAIMING PRIORITY:

Patent Cooperation Treaty Application No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", filed on March 20, 2007 (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

EXPIRED. APPLICATIONS CLAIMING PRIORITY:

Canadian Patent Application No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", filed on September 4, 2008 (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

European Patent Application No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", filed on September 4, 2008 (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

Hong Kong Patent Application No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", filed on September 4, 2008 (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

Japanese Patent Application No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", filed on September 4, 2008 (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

Japanese Patent Application No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", filed on September 4, 2008 (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

Japanese Patent Application No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", filed on a date to be determined (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

United States Patent No. * entitled, "*High Affinity Anti-Prostate Stem Cell Antigen (PSCA) Antibodies for Cancer Targeting and Detection*", issued on January 27, 2015 from U.S. Patent Application No. * filed on September 4, 2008 (UCLA Case No. *) by Drs. Anna Wu, Robert E. Reiter, Eric J. Lepin, James D. Marks, and Yu Zhou, and assigned to The Regents.

*Confidential material redacted and filed separately with the Commission.

APPENDIX B

ROYALTY STATEMENT

UC Control No: _____Product Name/Code(s) _____

Licensee Name: Mustang Bio, Inc.

Licensee Phone No: (781) 652-4501

Licensee Fax No: N/A

Licensee Email Address: ap@fortressbiotech.com Quarter Covered: _____

Product Name	Number of Units Sold	Unit Selling Price (US $)	Gross Sales (US $)	Final Sales (US $)	Net Sales (US $)	Royalty Rate (%)	Total Earned Royalties (US $)

Total Royalties Earned:_____

Less Minimum Annual Royalty:_____
(If Applicable)

Balance Due The REGENTS:_____

Prepared By:_____

APPENDIX C

MUSTANG BIO, INC. CONTACT INFORMATION

Licensee Name	Mustang Bio, Inc.	**UC Control No.**	
PATENT PROSECUTION CONTACT			
LAST NAME	Villacorta	TELEPHONE	(202) 295-4199
FIRST NAME	Gilberto	FAX	
TITLE	Partner	EMAIL	yvillacorta@foley.com
COMPANY NAME		Foley & Lardner LLP	
ADDRESS		Washington Harbour	
ADDRESS		3000 K Street, NW	
CITY, STATE, ZIP		Washington, DC 20007	
COUNTRY		USA	
PROGRESS REPORTS CONTACT			
LAST NAME	Gorelik	TELEPHONE	(781) 652-4532
FIRST NAME	Leonid	FAX	
TITLE	Vice President	EMAIL	lgorelik@fortressbiotech.com
COMPANY NAME		Fortress Biotech, Inc.	
ADDRESS		95 Sawyer Road, Suite 110	
ADDRESS			
CITY, STATE, ZIP		Waltham, MA 02453	
COUNTRY		USA	
FINANCIALS CONTACT			
LAST NAME	Fogg	TELEPHONE	(781) 652-4501
FIRST NAME	Laura	FAX	
TITLE	Accounts Payable Coordinator	EMAIL	ap@fortressbiotech.com
COMPANY NAME		Fortress Biotech, Inc.	
ADDRESS		95 Sawyer Road, Suite 110	
ADDRESS			
CITY, STATE, ZIP		Waltham, MA 02453	
COUNTRY		USA	

EXCLUSIVE LICENSE AGREEMENT

THIS EXCLUSIVE LICENSE AGREEMENT (the "**Agreement**") is made and entered into as of the 17th day of February, 2017 (the "**Effective Date**") by and between Mustang Bio, Inc. (f/k/a Mustang Therapeutics, Inc.), a Delaware corporation with a principal place of business at 3 Columbus Circle, New York, NY 10019 ("**Licensee**") and City of Hope, a California nonprofit public benefit corporation located at 1500 East Duarte Road, Duarte, California 91010 ("**City of Hope**" or "**COH**"). Licensee and COH are each sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**."

WHEREAS:

A. COH operates an academic research and medical center that encourages the use of its inventions, discoveries and intellectual property for the benefit of the public and COH owns or Controls (as defined below) certain Patent Rights (as defined below) useful in the Field (as defined below);

B. COH owns or Controls (as defined below) certain Patent Rights (as defined below) useful in the Field (as defined below);

C. The research may have been sponsored in part by the National Institute of Health, and as a consequence this license is subject to obligations to the United States Federal Government under 35 U.S.C. §§ 200-212 and applicable U.S. government regulations;

D. The research was sponsored in part by a grant from the California Institute for Regenerative Medicine (the "**CIRM Grant**"), and as a consequence this license is subject to applicable law and other obligations as applicable to exclusive licensees under the CIRM Grant; and

E. Licensee is a company dedicated to the commercial development and exploitation in the Field (as defined below) of products and services that incorporate one or more of the technologies described in the Patent Rights and therefore Licensee desires to obtain from COH a worldwide, exclusive license under the Patent Rights, on the terms and subject to the conditions set forth herein.

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

ARTICLE 1: DEFINITIONS

1.1 "**Affiliate**" of a Party means a Person that, directly or indirectly (through one or more intermediaries) controls, is controlled by, or is under common control with such Party. For purposes of this Section 1.1, "control" means (i) the direct or indirect ownership of 50 percent or more of the voting stock or other voting interests or interests in profits, or (ii) the ability to otherwise control or direct the decisions of board of directors or equivalent governing body thereof.

1.2 "**Business Day**" means any day, other than a Saturday, Sunday or day on which commercial banks located in Los Angeles, California, are authorized or required by law or regulation to close.

1.3 "**Change of Control**" means (i) any transaction or series of related transactions following which the holders of Licensee's capital stock immediately prior to such transaction or series of related transactions collectively are the owners of less than 50% of the outstanding equity interests of Licensee entitled to (a) vote with respect to the election of directors (or positions having a similar function) or (b) receive the proceeds upon any sale, liquidation or dissolution of Licensee, (ii) a sale, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, of all or a material portion of Licensee's interest in the Licensed Product or Licensed Service or (iii) a sale, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, of all or a material portion of Licensee's right title, or interest in its assets taken as a whole.

1.4 "**Commercially Reasonable Efforts**" means the exercise of such efforts and commitment of such resources by Licensee, directly or through one or more Sublicensees, in a diligent manner consistent with organizations in the pharmaceutical industry for a comparable development or commercialization program at a similar stage of development or commercialization. In the event that Licensee or a Sublicensee with respect to a given Licensed Product or Licensed Service, has a program or product that competes with the programs contemplated by this Agreement with respect to such Licensed Product or Licensed Service, then "Commercially Reasonable Efforts" shall also mean efforts at least comparable to those efforts and resources expended by Licensee or its Sublicensee on the competing program and/or product or service.

1.5 "**COH CAR**" means a chimeric antigen receptor that is licensed to Licensee by COH pursuant to an applicable license agreement between the Parties, including but not limited to, pursuant to that certain Amended and Restated Exclusive License Agreement between the Parties of even date herewith relating to IL-13, and that certain Amended and Restated Exclusive License Agreement between the Parties of even date herewith relating to CD123.

1.6 "**COH Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, COH to Licensee or its designees.

1.7 "**Confidential Information**" means: (i) all information and materials (of whatever kind and in whatever form or medium) disclosed by or on behalf of a Party to the other Party (or its designee) in connection with this Agreement, whether prior to or during the term of this Agreement and whether provided orally, electronically, visually, or in writing; provided that all such information and materials initially disclosed in writing or electronically shall be clearly marked as "CONFIDENTIAL" and all such materials and information initially disclosed orally shall be reduced to writing and marked as "CONFIDENTIAL" within 10 days following the date of initial oral disclosure; (ii) all copies of the information and materials described in (i) above; and (iii) the existence and each of the terms and conditions of this Agreement; provided further that Confidential Information shall not include information and materials to the extent a Party can demonstrate through its contemporaneous written records that such information and materials are or have been:

(a) known to the receiving Party, or in the public domain, at the time of its receipt by a Party, or which thereafter becomes part of the public domain other than by virtue of a breach of this Agreement or the obligations of confidentiality under this Agreement;

(b) received without an obligation of confidentiality from a Third Party having the right to disclose without restrictions such information;

(c) independently developed by or on behalf of the receiving Party without use of or reference to Confidential Information disclosed by the other Party; or

(d) released from the restrictions set forth in this Agreement by the express prior written consent of the disclosing Party.

1.8 "**Control(s)**" or "**Controlled**" means the possession by a Party, as of the Effective Date, of rights sufficient to effect the grant of rights set forth in this Agreement without violating the terms of any agreement with any Third Party.

1.9 "**Covers**" or "**Covered by**," means with reference to a particular Licensed Product or Licensed Service that the manufacture, use, sale, offering for sale, or importation of such Licensed Product or performance of such Licensed Service would, but for ownership of, or a license granted under this Agreement to, the relevant Patent Right, infringe a Valid Claim in the country in which the activity occurs.

1.10 "**Dispute**" means any controversy, claim or legal proceeding arising out of or relating to this Agreement, or the interpretation, breach, termination, or invalidity thereof.

1.11 "**Field**" means the treatment and diagnosis of all human diseases.

1.12 "**First Commercial Sale**" means, with respect to a particular Licensed Product or Licensed Service in a given country, the first arm's-length commercial sale of such Licensed Product or the first performance of such Licensed Service following Marketing Approval in such country by or under authority of Licensee or any Sublicensee to a Third Party who is not a Sublicensee.

1.13 "**GAAP**" means generally accepted accounting principles, consistently applied, as promulgated from time to time by the Financial Accounting Standards Board.

1.14 "**License Year**" means each calendar year during the term of this Agreement; except that the first License Year shall commence on the Effective Date and end on December 31 of the calendar year in which the Effective Date occurs.

1.15 "**Licensed Product**" means a product (including kits, component sets or components thereof, regardless of concentration or formulation) that: (i) is Covered by a Valid Claim, (ii) is manufactured by a process or used in a method Covered by a Valid Claim, or (iii) contains, as an active ingredient, any substance the manufacture, use, offer for sale or sale of which is Covered by a Valid Claim. By way of clarification, "Licensed Product" shall include a product manufactured in a country in which such manufacture is Covered by a Valid Claim and thereafter exported to and sold in a country in which no Valid Claim exists.

1.16 "**Licensed Service**" means any service the performance of which would, but for the license granted herein, infringe a Valid Claim.

1.17 "**Licensee Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, Licensee to COH or its designees.

1.18 "**Licensee Net Sales**" means the total gross amount invoiced by Licensee and its Affiliates (regardless of whether and when such invoices are actually paid) on the sale of Licensed Products and Licensed Services to Third Parties (including, without limitation, the provision of any product by Licensee or its Affiliates that incorporates a Licensed Product or Licensed Service but for clarity excluding documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead)), less the following items, as determined from the books and records of Licensee or its Affiliates:

(a) insurance, handling and transportation charges actually invoiced;

(b) amounts repaid, credited or allowed for rejection, return or recall;

(c) sales or other excise taxes or other governmental charges levied on or measured by the invoiced amount (including, without limitation, value added taxes);

(d) brokerage, customs and import duties or charges; and

(e) normal and customary trade and quantity discounts (including chargebacks and allowances) and rebates which relate to the Licensed Products or Licensed Services.

Sales of Licensed Products between or among Licensee, its Affiliates or its Sublicensees shall be excluded from the computation of Licensee Net Sales, except in those instances in which the purchaser is also the end-user of the Licensed Product sold. Further, transfers of reasonable quantities of Licensed Product by Licensee, any of its Affiliates or of its Sublicensee to a Third Party that is not a Sublicensee for use in the development of such Licensed Product (and not for resale) and transfers of industry standard quantities of Licensed Product for promotional purposes shall not be deemed a sale of such Licensed Product that gives rise to Licensee Net Sales for purposes of this Section 1.18.

1.19 "**Marketing Approval**" means all approvals, licenses, registrations or authorizations of any federal, state or local regulatory agency, department, bureau or other governmental entity, necessary for the manufacturing, use, storage, import, transport, marketing and sale of Licensed Products or performance of Licensed Services in a country or regulatory jurisdiction.

1.20 "**Patent Rights**" means: (i) U.S. Patent Application No. *, (ii) U.S. Patent Application No. *, (iii) patents, patent applications, continuation and divisional applications and foreign equivalents that claim the same invention(s) and priority date as the foregoing, (iv) continuation-in-part applications that repeat a substantial portion of any of the foregoing applications, (v) Letters Patent or the equivalent issued on any of the foregoing applications throughout the world, and (vi) amendments, extensions, renewals, reissues, and re-examinations of any of the foregoing. Notwithstanding the foregoing, "Patent Rights" shall only include any continuation-in-part application to the extent that claims in such continuation-in-part application are supported in the specification of the parent application, unless otherwise mutually agreed to in writing by the Parties to this Agreement.

1.21 "**Person**" means any person or entity, including any individual, trustee, corporation, partnership, trust, unincorporated organization, limited liability company, business association, firm, joint venture or governmental agency or authority.

1.22 "**Sublicensee**" means any Affiliate of Licensee or Third Party which enters into an agreement with Licensee involving the grant to such Affiliate or Third Party of any rights under the license granted to Licensee pursuant to this Agreement.

1.23 "**Sublicensee Net Sales**" means the total gross amount invoiced by Sublicensee (regardless of whether and when such invoices are actually paid) on the sale of Licensed Products and Licensed Services to Third Parties (including, without limitation, the provision of any product by Sublicensee that incorporates a Licensed Product or Licensed Service but for clarity excluding documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead)), less the following items, as determined from the books and records of Licensee, its Affiliates or its Sublicensees:

(a) insurance, handling and transportation charges actually invoiced;

(b) amounts repaid, credited or allowed for rejection, return or recall;

(c) sales or other excise taxes or other governmental charges levied on or measured by the invoiced amount (including, without limitation, value added taxes);

(d) brokerage, customs and import duties or charges; and

(e) normal and customary trade and quantity discounts (including chargebacks and allowances) and rebates which relate to the Licensed Products or Licensed Services.

Sales of Licensed Products between or among Licensee, its Affiliates or its Sublicensees shall be excluded from the computation of Sublicensee Net Sales, except in those instances in which the purchaser is also the end-user of the Licensed Product sold. Further, transfers of reasonable quantities of Licensed Product by Licensee, any of its Affiliates or of its Sublicensee to a Third Party that is not a Sublicensee for use in the development of such Licensed Product (and not for resale) and transfers of industry standard quantities of Licensed Product for promotional purposes shall not be deemed a sale of such Licensed Product that gives rise to Sublicensee Net Sales for purposes of this Section 1.23.

*Confidential material redacted and filed separately with the Commission.

1.24 "**Sublicense Revenues**" means all consideration, in whatever form, due from a Sublicensee in return for the grant of a sublicense of Licensee's rights hereunder, excluding consideration in the form of: (i) royalties received by Licensee and calculated wholly as a function of sales of Licensed Products or Licensed Services, (ii) payments or reimbursement for documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead), (iii) payment or reimbursement of reasonable patent expenses actually incurred or paid by Licensee and not otherwise reimbursed, or payment of patent expenses required to by paid by Licensee hereunder, (iv) payments for the purchase of equity in Licensee at the fair market value of such equity, (v) payments recognized as Sublicensee Net Sales under this Agreement for which a royalty is payable to COH, and (vi) payments received in connection with an arms-length sale of Licensed Products in finished dosage form to a commercial distributor of pharmaceutical products for distribution of such Licensed Products to end users; provided, that, the royalty due under this Agreement is paid with respect to Licensee Net Sales or Sublicensee Net Sales, as applicable, of such Licensed Products. By way of clarification, the principal amount of any loan or other extension of credit provided to Licensee or an Affiliate of Licensee in connection with the grant of a sublicense by Licensee that is other than an arm's-length credit relationship shall be deemed to constitute "Sublicense Revenues."

1.25 "**Territory**" means the entire world.

1.26 "**Third Party**" means a Person that is neither a Party to this Agreement nor an Affiliate of a Party.

1.27 "**Valid Claim**" means a claim of a pending patent application or an issued and unexpired patent included in the Patent Rights in a particular jurisdiction, which claim has not, in such jurisdiction, been finally rejected or been declared invalid or cancelled by the patent office or a court of competent jurisdiction in a decision that is no longer subject to appeal as a matter of right.

ARTICLE 2: DEVELOPMENT AND COMMERCIALIZATION EFFORTS

2.1 **Development and Commercialization Responsibilities**. Licensee shall have the sole right and responsibility for, and control over, all development, manufacturing and commercialization activities (including all regulatory activities) with respect to Licensed Products and Licensed Services in the Field.

2.2 **Licensee Diligence**. Licensee shall use Commercially Reasonable Efforts to develop and commercialize Licensed Products and Licensed Services in the Field, directly or through one or more Sublicensees. Without limiting the foregoing, if Licensee, directly or through one or Sublicensees, fails to use Commercially Reasonable Efforts in furtherance of the accomplishment of any one of the "**Diligence Milestones**" set forth in this Section 2.2 by the date specified (each a "**Deadline Date**") corresponding to such Diligence Milestone, COH shall have the right, on notice to Licensee, to terminate this Agreement or convert the grant of rights hereunder from exclusive to non-exclusive without any change in the other terms and conditions of this Agreement.

"**Deadline Date**"	"**Diligence Milestone**"
1. * from the Effective Date	Infusion of at least * with the first Licensed Product or Licensed Service.
2. * from the Effective Date	Submission of at least * (*) additional Investigational New Drug ("**IND**") application in connection with a Licensed Product or Licensed Service after the Effective Date by or on behalf of Licensee or a Sublicensee. For clarity, such additional IND application shall be (i) in addition to any IND application related to a Licensed Product or a Licensed Service existing as of the Effective Date, and (ii) directed to a new indication not already proposed in such IND application existing as of the Effective Date.
3. * from the Effective Date	Infusion of at least * with a Licensed Product or Licensed Service in connection with each additional IND application described in Diligence Milestone 2.

2.3 **Governance**. COH and Licensee shall each designate one individual to serve as the main point of contact for communications related to development and commercialization of Licensed Products and Licensed Services under this Agreement (each a "**Designated Representative**"). The initial Designated Representative of COH shall be George Megaw, and the initial Designated Representative of Licensee shall be Samuel W. Berry. Each Party may replace its Designated Representative at any time upon prior notice to the other Party. Licensee shall keep COH reasonably informed as to its commercial development plan and progress in the development and commercialization of Licensed Products and Licensed Services. Without limiting the foregoing, on or before January 15 and July 15 of each year during the term of this Agreement, Licensee shall provide to COH a written report setting forth, in reasonable detail, its plans, activities, and achievements with respect to the development and commercialization of Licensed Products and Licensed Services during the preceding six months (the "**Semi-Annual Report**"). Each Semi-Annual Report shall also include the COH reference number, OTL 16-126. The Designated Representatives shall meet in person twice each calendar year to present and discuss the current Semi-Annual Report at such location and date as mutually agreed. Each Party shall be responsible for all expenses incurred by its Designated Representative in the participation in such annual meetings. A copy of each Semi-Annual Report shall be provided, in addition to the persons set forth in Section 14.7, to: The Office of Technology Licensing, email: licensing@coh.org.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 3: LICENSE GRANTS

3.1 **Grant of Rights**. COH hereby grants to Licensee an exclusive royalty-bearing right and license under the Patent Rights to make, have made, use, offer for sale, sell and import Licensed Products and to perform Licensed Services, in the Field, in the Territory. The foregoing grant of rights shall be subject to: (i) the retained rights of the U.S. Government in the Patent Rights pursuant to 35 U.S.C. §§ 200-212 and applicable U.S. government regulations, (ii) the royalty-free right of COH and its Affiliates to practice the Patent Rights for educational and research uses, (iii) the right of COH and its Affiliates to publicly disclose research results, and (iv) the right of COH and its Affiliates to allow other non-profit institutions to use the Patent Rights for the same purposes as (ii) and (iii).

3.2 **No Implied Licenses**. Licensee acknowledges that the licenses granted in this Agreement are limited to the scope expressly granted and that, subject to the terms and conditions of this Agreement, all other rights under all Patent Rights and other intellectual property rights Controlled by COH are expressly reserved to COH.

3.3 **Sublicensing**. Licensee shall have the right to sublicense its rights hereunder without the consent of COH, effective on notice to COH. The terms and conditions of each sublicense of Licensee's rights hereunder shall be consistent with this Agreement. A true and complete copy of each sublicense of Licensee's rights hereunder, as well as any amendment thereto, shall be delivered to COH promptly following the effective date of each such sublicense or amendment.

3.4 **Effect of Termination on Sublicenses**.

(a) In the event that this Agreement terminates at any time for any reason, each sublicense validly granted hereunder which is in good standing as of the effective date of such termination shall continue in effect as a direct license between COH (as licensor) and Sublicensee (as licensee), provided that: (i) such sublicense, as determined by COH in its reasonable and good faith discretion, contains or imposes on COH no material obligation or liability additional to those set forth in this Agreement, (ii) the Sublicensee delivers to COH, within 30 days of the effective date of the termination of this Agreement, written acknowledgement that all payment and other obligations previously payable to Licensee under such sublicense shall thereafter be payable and due, and be paid directly to COH, and (iii) such Sublicensee (including its employees and contractors) is not at such time debarred or excluded or otherwise ineligible for participation in federally funded programs. All other sublicenses in existence as of the effective date of the termination of this Agreement which fail to satisfy the foregoing conditions shall, upon such termination, terminate.

(b) Further and in addition to the requirements of Section 3.4(a), above, the conversion of a sublicense into a direct license between COH (as licensor) and Sublicensee (as licensee) upon termination of this Agreement shall require that either [A] or [B] (but not both), below, be satisfied:

[A] On the effective date of the termination of this Agreement:

(i) the Sublicensee is not a party to a proceeding in bankruptcy or insolvency filed by or against such Sublicensee, has not made a general assignment for the benefit of its creditors, and is not in litigation with COH or any Affiliate of COH, *and*

(ii) (1) the effective royalty rate payable on Sublicensee's Net Sales of Licensed Products and Licensed Services, (2) the aggregate of other non-sale/royalty-based consideration due from Sublicensee, and (3) the other material terms and conditions of the sublicense are materially no less favorable to COH than the corresponding terms of this Agreement, *or*

[B] the terms and conditions of the sublicense had been approved by COH prior to its having been entered into by Licensee and the Sublicensee, such approval having been considered by COH expeditiously and not conditioned on the payment by Licensee of any additional consideration.

3.5 **Documentation of Licensed Services**. Licensee and its Sublicensees shall provide Licensed Services only pursuant to one or more written agreements which set forth, in reasonable detail, all consideration due to Licensee for the provision of such services. Licensee shall provide a true and complete copy of each such agreement to COH promptly following the effective date of such agreement.

ARTICLE 4: PAYMENTS

4.1 **Up-Front Payment**. Licensee shall pay to COH a one-time non-refundable license fee of $*within 30 days after the Effective Date.

4.2 **License Maintenance Fee**. On or before the tenth Business Day after the end of each License Year (excluding the first License Year ending December 31, 2016, the second License Year ending December 31, 2017, and the third License Year ending December 31, 2018), Licensee shall pay to COH a non-refundable license maintenance fee of $*. The license maintenance fee paid in a given License Year shall be applied as credit against royalties otherwise due to COH pursuant to Section 4.4, below, during the License Year in which payment was made but may not be carried over and applied as credit against royalties due in subsequent years.

4.3 **Milestone Payments**. Within 30 days after the occurrence of the milestone event "**Milestone Event**" set forth below, Licensee shall pay COH or its designee the amount indicated below:

Milestone Event	Amount Due
#1. Upon the *.	$ *

*Confidential material redacted and filed separately with the Commission.

4.4 **Royalties**.

(a) **Net Sales by Licensee and Affiliates**. Licensee shall pay to COH or its designee royalties in an amount equal to *percent of Licensee Net Sales of Licensed Products and Licensed Services. Royalties shall be paid on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims in such country Covering Licensed Product or Licensed Services.

(b) **Net Sales by Sublicensees**. Licensee shall pay to COH or its designee royalties in an amount equal to * percent of Sublicensee Net Sales of Licensed Products and Licensed Services. Royalties shall be paid on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims in such country Covering Licensed Product or Licensed Services.

4.5 **Royalty Offsets**. If, in Licensee's reasonable business judgment it is necessary to pay to a Third Party, other than a Sublicensee, consideration (whether in the form of a royalty or otherwise) for the right to make, have made, use, sell, offer for sale or import a Licensed Product or Licensed Service in a given jurisdiction, and if the aggregate royalty rates of any and all royalties payable to such Third Party licensors when combined with the royalty rate payable to COH exceeds * percent in the case of Licensee Net Sales of Licensed Products or Licensed Services, then Licensee shall have the right with respect to any period for which royalties are due (i.e. a calendar quarter or calendar year) to set off * percent of the aggregate royalties otherwise payable with respect to such period and such jurisdiction to such Third Party licensors against royalties that would otherwise be due to COH hereunder with respect to such period and jurisdiction; provided, however, that each Third Party licensor agrees to be stacked proportionally; and provided further, however, that under no circumstances shall the royalty offsets permitted in this Section 4.5 result in the reduction of the effective adjusted royalty rate and the royalty amount otherwise due to COH in any period for which payment is due and in any jurisdiction pursuant to Section 4.4 above, by more than * percent (e.g., minimum effective adjusted royalty rate for Licensed Product or Licensed Services sales shall be * percent).

4.6 **Sublicense Revenues**.

4.6.1 Licensee shall pay to COH an amount equal to * percent of all Sublicense Revenues within 30 days after payment is received from the relevant Sublicensee. If Sublicense Revenues are not in cash or cash equivalents, the percentage share payable to COH pursuant to this Section 4.6.1 shall be due, in COH's sole discretion, either in kind or in its cash equivalent.

4.6.2 In the event that Licensee sublicenses its rights hereunder solely for use by such sublicensee in connection with a chimeric antigen receptor that is, as of the Effective Date or as of the date of execution of such sublicense, a COH CAR, either directly or indirectly pursuant to an applicable license or sublicense agreement (each, a "**COH CAR License**"), Licensee shall only be required to pay to COH a percentage of sublicensing revenues pursuant to the applicable COH CAR License, if any, and shall not be required to make additional payments pursuant to Section 4.6.1 of this Agreement; provided, that the sublicensee shall only receive a license to use the rights granted hereunder in connection with the applicable COH CAR. COH will determine, for purposes of Licensee invoicing, the allocation of sublicensing revenues among this Agreement and the applicable COH CAR Licenses at a time when a payment pursuant to this Section 4.6.2 is due and shall inform Licensee in writing of the determination at such time.

*Confidential material redacted and filed separately with the Commission.

4.7 **Timing of Royalty Payments**. Royalty payments due under Section 4.4 above shall be paid annually within 60 days following the end of each License Year until the first License Year in which aggregate Licensee Net Sales and Sublicensee Net Sales reach $*. Thereafter, all royalty payments due under Section 4.4 shall be paid in quarterly installments, within 60 days following the end of each calendar quarter.

4.8 **No Deductions from Payments**. Licensee is solely responsible for payment of any fee, royalty or other payment due to any Third Party not a Sublicensee in connection with the research, development, manufacture, distribution, use, sale, import or export of a Licensed Product or Licensed Service and, except as set forth in Section 4.5 above, Licensee shall not have the right to set off any amounts paid to such a Third Party, including fee, royalty or other payment, against any amount payable to COH hereunder.

4.9 **Single Royalty**. Only a single royalty payment shall be due and payable on Licensee Net Sales and Sublicensee Net Sales of a Licensed Product or performance of a Licensed Service, regardless if such Licensed Product or Licensed Service is Covered by more than one Valid Claim.

ARTICLE 5: REPORTS, AUDITS AND FINANCIAL TERMS

5.1 **Royalty Reports**. Within 60 days after the end of each calendar quarter in which a royalty payment under Article 4 is required to be made, Licensee shall send to COH a report of Licensee Net Sales and Sublicensee Net Sales of the Licensed Products and Licensed Services for which a royalty is due, which report sets forth for such calendar quarter the following information, on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service and country-by-country basis: (i) total Licensee Net Sales and Sublicensee Net Sales, (ii) total gross sales of Licensed Products and Licensed Services, (iii) the quantity of each Licensed Products sold and Licensed Services performed, (iv) the exchange rate used to convert Licensee Net Sales and Sublicensee Net Sales from the currency in which they are earned to United States dollars; and (v) the total royalty payments due. All royalty reports shall also include the COH reference number, OTL 16-126. A copy of each royalty report shall be provided, in addition to the persons set forth in Section 14.7, to: The Office of Technology Licensing, email: otl-royalties@coh.org.

5.2 **Additional Financial Terms**.

5.2.1 **Currency**. All payments to be made under this Agreement shall be made in United States dollars, unless expressly specified to the contrary herein. Licensee Net Sales and Sublicensee Net Sales outside of the United States shall be first determined in the currency in which they are earned and shall then be converted into an amount in United States dollars. All currency conversions shall use the conversion rate reported by Reuters, Ltd. on the last Business Day of the calendar quarter for which such payment is being determined.

*Confidential material redacted and filed separately with the Commission.

5.2.2 **Payment Method**. Amounts due under this Agreement shall be paid in immediately available funds, by means of wire transfer to an account identified by COH.

5.2.3 **Withholding of Taxes**. Licensee may withhold from payments due to COH amounts for payment of any withholding tax that is required by law to be paid to any taxing authority with respect to such payments. Licensee shall provide to COH all relevant documents and correspondence, and shall also provide to COH any other cooperation or assistance on a reasonable basis as may be necessary to enable COH to claim exemption from such withholding taxes and to receive a full refund of such withholding tax or claim a foreign tax credit. Licensee shall give COH proper evidence from time to time as to the payment of such tax. The Parties shall cooperate with each other in seeking deductions under federal and state tax laws and any double taxation or other similar treaty or agreement from time to time in force.

5.2.4 **Late Payments**. Any amounts not paid on or before the date due under this Agreement are subject to interest from the date due through and including the date upon which payment is received. Interest is calculated, over the period between the date due and the date paid, at a rate equal to * percentage point (*%) over the "bank prime loan" rate, as such rate is published in the U.S. Federal Reserve Bulletin H.15 or successor thereto on the last Business Day of the applicable calendar quarter prior to the date on which such payment is due.

5.2.5 **Blocked Currency**. If, at any time, legal restrictions prevent the prompt remittance of part or all royalties with respect to any country where a Licensed Product is sold or Licensed Service provided, payment shall be made through such lawful means or methods as Licensee may determine. When, in any country, the law or regulations prohibit both the transmittal and deposit of royalties or other payments, Licensee shall continue to report all such amounts, but may suspend payment for as long as such prohibition is in effect. As soon as such prohibition ceases to be in effect, all amounts that would have been obligated to be transmitted or deposited but for the prohibition, together with accrued interested thereon, shall promptly be transmitted to COH.

5.3 **Accounts and Audit**.

5.3.1 **Records**. Licensee shall keep, and shall require in applicable sublicense agreements, that each Sublicensee keep, full, true and accurate books of account containing the particulars of its Licensee Net Sales and Sublicensee Net Sales, as applicable, and the calculation of royalties. Licensee and its Sublicensees shall each keep such books of account and the supporting data and other records at its principal place of business. Such books and records must be maintained available for examination in accordance with this Section 5.3.1 for five calendar years after the end of the calendar year to which they pertain, and otherwise as reasonably required to comply with GAAP.

5.3.2 **Appointment of Auditor**. COH may appoint an internationally- recognized independent accounting firm reasonably acceptable to Licensee to inspect the relevant books of account of Licensee and its Sublicensees to verify any reports or statements provided, or amounts paid or invoiced (as appropriate), by Licensee or its Sublicensees.

*Confidential material redacted and filed separately with the Commission.

5.3.3 **Procedures for Audit**. COH may exercise its right to have Licensee's and its Sublicensees' relevant records examined only during the five year period during which Licensee is required to maintain records, no more than once in any consecutive four calendar quarters. Licensee and its Sublicensees are required to make records available for inspection only during regular business hours, only at such place or places where such records are customarily kept, and only upon receipt of at least 15 days advance notice from COH.

5.3.4 **Audit Report**. The independent accountant will be instructed to provide to COH an audit report containing only its conclusions and methodology regarding the audit, and specifying whether the amounts paid were correct and, if incorrect, the amount of any underpayment or overpayment.

5.3.5 **Underpayment and Overpayment**. After review of the auditor's report: (i) if there is an uncontested underpayment by Licensee for all of the periods covered by such auditor's report, then Licensee shall pay to COH the full amount of that uncontested underpayment, and (ii) if there is an uncontested overpayment for such periods, then COH shall provide to Licensee a credit against future payments (such credit equal to the full amount of that overpayment), or, if Licensee is not obligated to make any future payments, then COH shall pay to Licensee the full amount of that overpayment. Contested amounts are subject to dispute resolution under Article 12. If the total amount of any such underpayment (as agreed to by Licensee or as determined under Article 12) exceeds * percent of the amount previously paid by Licensee for the period subject to audit, then Licensee shall pay the reasonable costs for the audit. Otherwise, all costs of the audit shall be paid by COH.

ARTICLE 6: LICENSEE COVENANTS

6.1 Licensee covenants and agrees that:

(a) During the period commencing on the Effective Date and ending on the third (3^{rd}) anniversary of the Effective Date, both Dr. Lindsay A. Rosenwald and Michael S. Weiss will hold either directorial or senior management positions of Licensee or its parent company, Fortress Biotech, Inc.; provided, that, in the event of a Change of Control of Licensee, subsequent to such Change of Control, in the event that either Dr. Lindsay A. Rosenwald or Michael S. Weiss no longer holds either a directorial or senior management position of Licensee or its parent company Fortress Biotech, Inc., then both individuals must remain materially involved with the oversight and management of the development of Licensed Products during such period; provided further that in the event of the death or permanent disability of either of Dr. Rosenwald or Mr. Weiss, Licensee will be excused from observing this Section 6.1(a) with regard to the decedent;

(b) in conducting activities contemplated under this Agreement, it shall comply in all material respects with all applicable laws and regulations including, without limitation, those related to the manufacture, use, labeling importation and marketing of Licensed Products and Licensed Services; and

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(c) without limiting the foregoing and notwithstanding any other provision in this Agreement, Licensee acknowledges and agrees that it is an exclusive Licensee under this Agreement and agrees (i) to be subject to all laws and other obligations applicable to the CIRM Grant as they apply to an exclusive Licensee, including diligence, reporting, access and pricing requirements, and (ii) to assist COH as necessary to ensure COH remains in compliance with any laws and other obligations applicable to the CIRM Grant.

ARTICLE 7: INTELLECTUAL PROPERTY; PATENT PROSECUTION, MAINTENANCE AND ENFORCEMENT.

7.1 **Patent Prosecution, Maintenance and Enforcement**.

(a) COH shall be responsible for the preparation, filing, prosecution, and maintenance of all Patent Rights, using counsel of its choice. COH will timely provide Licensee with copies of all relevant documentation relating to such prosecution and Licensee shall keep such information confidential. In addition, COH shall instruct the patent counsel prosecuting Patent Rights to (i) copy Licensee on patent prosecution documents that are received from or filed with the United States Patent and Trademark Office and foreign equivalent, as applicable; (ii) if requested by Licensee, provide Licensee with copies of draft submissions to the USPTO prior to filing; and (iii) give reasonable consideration to the comments and requests of Licensee or its patent counsel, provided that (a) COH reserves the sole right to make all final decisions with respect to the preparation, filing, prosecution and maintenance of such patent applications and patents; and (b) the patent counsel remains counsel to COH (and shall not jointly represent Licensee unless requested by Licensee and approved by COH, and an appropriate engagement letter and conflict waiver are in effect). All patents and patent applications in Patent Rights, to the extent assignable in whole or in part to COH, shall be assigned to COH.

(b) COH will not unreasonably refuse to amend any patent application in Patent Rights to include claims reasonably requested by Licensee to protect the products contemplated to be sold by Licensee under this Agreement. If Licensee informs COH of other countries or jurisdictions in which it wishes to obtain patent protection with respect to the Patent Rights, COH shall prepare, file, prosecute and maintain patent applications in such countries and any patents resulting therefrom (and, for the avoidance of doubt, such patent applications and patents shall be deemed included in the Patent Rights). On a country by country and patent by patent basis, Licensee may elect to surrender any patent or patent application in Patent Rights in any country upon sixty (60) days advance written notice to COH. Such notice shall relieve Licensee from the obligation to pay for future patent costs but shall not relieve Licensee from responsibility to pay patent costs incurred prior to the expiration of the sixty (60) day notice period. Such U.S. or foreign patent application or patent shall thereupon cease to be a Patent Right hereunder, Licensee shall have no further rights therein and COH shall be free to license its rights to that particular U.S. or foreign patent application or patent to any other party on any terms.

(c) Each Party shall promptly provide written notice to the other in the event it becomes aware of any actual or probable infringement of any of the Patent Rights in or relevant to the Field or of any Third Party claim regarding the enforceability or validity of any Patent Rights ("**Infringement Notice**"). Licensee shall, in cooperation with COH, use reasonable efforts to terminate infringement without litigation.

(d) If infringing activity has not been abated within ninety (90) days following the date the Infringement Notice takes effect, then Licensee may, following consultation with COH, in its sole discretion and at its sole expense, take action against any alleged infringer or in defense of such any claim, provided, that Licensee has exclusive rights under this Agreement. Any recovery obtained by Licensee as the result of legal proceedings initiated and paid for by Licensee pursuant to this subsection (d), after deduction of Licensee's reasonable out-of-pocket expenses incurred in securing such recovery, shall be deemed to be Licensee Net Sales or Sublicensee Net Sales, as applicable, of Licensed Products and/or Licensed Services in the calendar quarter in which such recovery was received and royalties shall be due and payable thereon accordingly.

(e) If COH is involuntarily joined in a suit initiated by Licensee, then the Licensee will pay any costs incurred by COH arising out of such suit, including but not limited to, reasonable legal fees of counsel that COH selects and retains to represent it in the suit.

(f) In the event that Licensee declines either to cause such infringement to cease (e.g., by settlement or injunction) or to initiate and thereafter diligently maintain legal proceedings against the infringer other than as part of a mutually agreed upon bona fide strategy, developed with the guidance of outside patent counsel, to preserve the Patent Rights, COH may, in its sole discretion and at its sole expense, take action against such alleged infringer or in defense of any such Third Party claim. Any recovery obtained by COH as the result of any such legal proceedings shall be for the benefit of COH only.

7.2 **Trademarks**. Licensee shall be responsible for the selection, registration, maintenance, and defense of all trademarks for use in connection with the sale or marketing of Licensed Products and Licensed Services in the Field in the Territory (the "**Marks**"), as well as all expenses associated therewith. All uses of the Marks by Licensee or a Sublicensee shall comply in all material respects with all applicable laws and regulations (including those laws and regulations particularly applying to the proper use and designation of trademarks in the applicable countries). Licensee shall not, without COH's prior written consent, use any trademarks or house marks of COH (including the COH corporate name), or marks confusingly similar thereto, in connection with Licensee commercialization of Licensed Products or Licensed Services under this Agreement in any promotional materials or applications or in any manner implying an endorsement by COH of Licensee or the Licensed Products or Licensed Services. Licensee shall own all Marks.

7.3 **Challenge to the Patent Rights by Licensee**. COH may terminate this Agreement and, notwithstanding Section 3.3 above, all Sublicenses issued hereunder, upon written notice to Licensee in the event that Licensee or any of its Affiliates or Sublicensees directly or indirectly asserts a Patent Challenge. "**Patent Challenge**" means any challenge in a legal or administrative proceeding to the patentability, validity or enforceability of any of the Patent Rights (or any claim thereof), including by: (a) filing or pursuing a declaratory judgment action in which any of the Patent Rights is alleged to be invalid or unenforceable; (b) citing prior art against any of the Patent Rights, filing a request for or pursuing a re-examination of any of the Patent Rights (other than with COH's written agreement), or becoming a party to or pursuing an interference; or (c) filing or pursuing any re-examination, opposition, cancellation, nullity or other like proceedings against any of the Patent Rights; but excluding any challenge raised as a defense against a claim, action or proceeding asserted by COH against Licensee, its Affiliates or Sublicensees. In lieu of exercising its rights to terminate under this Section 7.3 COH may elect upon written notice to increase the payments due under all of Article 4 by * percent (*%), which election will be effective retroactively to the date of the commencement of the Patent Challenge. Licensee acknowledges and agrees that this Section 7.3 is reasonable, valid and necessary for the adequate protection of COH's interest in and to the Patent Rights, and that would not have granted to Licensee the licenses under those Patent Rights, without this Section 7.3.

7.4 **Payment of COH Patent Expenses**.

(a) The Parties acknowledge that, prior to the Effective Date, COH provided to Licensee documentation of historic expenses incurred by COH with respect to the drafting, prosecution and maintenance of the Patent Rights. In consideration of such historic expenditures by COH, Licensee shall reimburse COH for such expenses within 30 days after the Effective Date.

(b) After the Effective Date, COH shall provide to Licensee an annual invoice and reasonably detailed documentation with respect to COH's out-of-pocket expenses incurred with respect to such prosecution and maintenance for the previous year. Licensee shall reimburse COH for * percent of such expenses within 30 days after receipt of such invoice and documentation.

7.5 **Marking**. Licensee and its Sublicensees shall mark all Licensed Products and all materials related to Licensed Services in such a matter as to conform with the patent laws of the country to which such Licensed Products are shipped or in which such products are sold and such Licensed Services performed.

ARTICLE 8: TERM AND TERMINATION

8.1 **Term and Expiration of Term**. The term of this Agreement (the "**Term**") shall commence on the Effective Date and, notwithstanding any other provision of this Agreement, unless sooner terminated by mutual agreement or pursuant to any other provision of this Agreement, this Agreement shall expire on a country-by-country basis and on a Patent Right-by- Patent Right basis on the later to occur of: (a) the expiration of the last to expire of any of the Patent Rights in such country (or if no patent issues, until the last patent application in Patent Rights is abandoned), and (b) the date on which the last of the remaining obligations under this Agreement between the Parties with respect to the payment of milestones or royalties with respect to Licensed Products and Licensed Services have been satisfied (such expiry of the Term hereinafter referred to as "**Expiration**").

*Confidential material redacted and filed separately with the Commission.

8.2 **Termination**.

8.2.1 **Material Breach**. Either Party may terminate this Agreement prior to its Expiration for any material breach by the other Party, provided that the Party seeking to terminate shall have first given the breaching Party notice of such material breach with reasonable particulars of the material breach, and the Party receiving the notice of the material breach shall have failed to cure that material breach within 60 days after the date of receipt of such notice.

8.2.2 **Bankruptcy**. COH shall have the right to terminate this Agreement prior to its Expiration upon notice to Licensee, in the event that: (i) Licensee seeks protection of any bankruptcy or insolvency law other than with the prior consent of City of Hope, or (ii) a proceeding in bankruptcy or insolvency is filed by or against Licensee and not withdrawn, removed or vacated within 120 days of such filing, or there is adjudication by a court of competent jurisdiction that Licensee is bankrupt or insolvent.

8.2.3 **Termination at Will by Licensee**. Licensee shall have the right to terminate this Agreement prior to its Expiration upon notice to COH without cause, effective no fewer than 90 days following the date of such notice.

8.3 **Effect of Termination**.

8.3.1 Upon any termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), all rights and licenses granted to Licensee under Article 4, if any, shall immediately terminate on and as of the effective date of termination as provided in Section 8.2, except that Licensee shall have the right to continue to sell Licensed Products manufactured prior to the effective date of such termination until the sooner of: (i) 90 days after the effective date of termination, or (ii) the exhaustion of Licensee's inventory of Licensed Products.

8.3.2 Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration):

(a) Each Party shall promptly return to the other Party all relevant records and materials in its possession or control containing or comprising the other Party's Confidential Information and to which the Party does not retain rights hereunder.

(b) Licensee shall discontinue making any representation regarding its status as a licensee of COH for Licensed Products and Licensed Services. Subject to Section 8.3.1 above, Licensee shall cease conducting any activities with respect to the marketing, promotion, sale or distribution of Licensed Products and Licensed Services.

8.3.3 Termination of this Agreement through any means and for any reason pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), shall not relieve the Parties of any obligation accruing prior thereto, including the payment of all sums due and payable, and shall be without prejudice to the rights and remedies of either Party with respect to any antecedent breach of any of the provisions of this Agreement.

8 . 4 **Survival**. Sections 4.7, 5.1, 5.2, 5.3, 7.5, 8.3, 8.4, Article 10, Article 11, Article 12, Sections 14.2, 14.4, 14.7, and 14.10 shall survive termination of this Agreement for any reason pursuant to Section 8.2 and Expiration pursuant to Section 8.2.

ARTICLE 9: REPRESENTATIONS AND WARRANTIES

9.1 **Mutual Representations and Warranties**. COH and Licensee each represents and warrants as follows:

9.1.1 It has the right and authority to enter into this Agreement and all action required to be taken on its behalf, its officers, directors, partners and stockholders necessary for the authorization, execution, and delivery of this Agreement and, the performance of all of its obligations hereunder, and this Agreement, when executed and delivered, will constitute valid and legally binding obligations of such Party, enforceable in accordance with its terms, subject to: (i) laws limiting the availability of specific performance, injunctive relief, and other equitable remedies; and (ii) bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights generally;

9.1.2 Entry into this Agreement will not constitute a breach of any other agreement to which it is party;

9.1.3 It has read this Agreement, with assistance from its counsel of choice. It understands all of this Agreement's terms. It has been given a reasonable amount of time to consider the contents of this Agreement before each Party executed it. It agrees that it is executing this Agreement voluntarily with full knowledge of this Agreement's legal significance; and

9.1.4 It has made such investigation of all matters pertaining to this Agreement that it deems necessary, and does not rely on any statement, promise, or representation, whether oral or written, with respect to such matters other than those expressly set forth herein. It agrees that it is not relying in any manner on any statement, promise, representation or understanding, whether oral, written or implied, made by any Party, not specifically set forth in this Agreement. It acknowledges that, after execution of this Agreement, it may discover facts different from or in addition to those which it now knows or believes to be true. Nevertheless, it agrees that this Agreement shall be and remain in full force and effect in all respects, notwithstanding such different or additional facts.

9.2 **Representations and Warranties of COH**. COH represents and warrants that, to the actual knowledge of the Director of its Office of Technology Transfer without independent inquiry, COH has the full power and authority to grant the rights, licenses and privileges granted herein.

9.3 **Exclusions**. Nothing in this Agreement is or shall be construed as:

9.3.1 A warranty or representation by COH as to the validity or scope of any claim or patent or patent application within the Patent Rights;

9.3.2 A warranty or representation by COH that anything made, used, sold, or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of any patent rights or other intellectual property right of any Third Party;

9.3.3 A grant by COH, whether by implication, estoppel, or otherwise, of any licenses or rights under any patents other than Patent Rights as defined herein, regardless of whether such patents are dominant or subordinate to Patent Rights;

9.3.4 An obligation on COH to bring or prosecute any suit or action against a third party for infringement of any of the Patent Rights;

9.3.5 An obligation to furnish any know-how not provided in Patent Rights; or

9.3.6 A representation or warranty of the ownership of the Patent Rights other than as set forth in Section 9.29.2, above.

9.4 **DISCLAIMER**. **NO WARRANTY IS GIVEN WITH RESPECT TO THE PATENT RIGHTS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND THE PARTIES SPECIFICALLY DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF THE PATENT RIGHTS OR NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY OR OTHER RIGHTS OF ANY THIRD PARTY. THE WARRANTIES SET FORTH IN SECTIONS 9.1 AND 9.2 ABOVE, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, VALIDITY, NON-INFRINGEMENT AND ALL SUCH OTHER WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.**

ARTICLE 10: INDEMNIFICATION

10.1 **Indemnification by Licensee**. Licensee shall defend, indemnify and hold harmless COH, its Affiliates, officers, directors, shareholders, employees and agents ("**COH Indemnitees**") from and against any and all Third Party liabilities, claims, suits, and expenses, including reasonable attorneys' fees (collectively, "**Losses**"), arising out of or are in any way attributable to: (i) the material breach of any representation or warranty made by Licensee under this Agreement, (ii) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee, any of its Affiliates or a Sublicensee or any other exercise of rights under this Agreement or pursuant to any sublicense, or (iii) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or Sublicensee; in each case except to the extent that such Losses are caused directly by: (a) COH's material breach of any representation or warranty made by COH under this Agreement, (b) COH's material breach of its obligations under this Agreement, and/or (c) the gross negligence or willful misconduct of a COH Indemnitee.

10.2 **Indemnification by COH**. COH shall defend, indemnify and hold harmless Licensee and its Affiliates and their respective officers, directors, shareholders, employees and agents (collectively, the "**Licensee Indemnitees**") from and against any and all Losses caused directly by: (i) the material breach of any representation or warranty made by COH under this Agreement, or (ii) the gross negligence or willful misconduct of a COH Indemnitee, except to the extent that such Losses arise out of or are in any way attributable to: (a) the material breach of any representation or warranty made by Licensee under this Agreement, (b) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee or a Sublicensee, or (c) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or a Sublicensee.

10.3 **Procedure**. The indemnities set forth in this Article 10 are subject to the condition that the Party seeking the indemnity shall forthwith notify the indemnifying Party on being notified or otherwise made aware of a liability, claim, suit, action or expense and that the indemnifying Party defend and control any proceedings with the other Party being permitted to participate at its own expense (unless there shall be a conflict of interest which would prevent representation by joint counsel, in which event the indemnifying Party shall pay for the other Party's counsel); provided, that, the indemnifying Party may not settle the liability, claim, suit, action or expense, or otherwise admit fault of the other Party or consent to any judgment, without the written consent of the other Party (such consent not to be unreasonably withheld). Notwithstanding the foregoing, no delay in the notification of the existence of any claim of Loss shall cause a failure to comply with this Section 10.3 as long as such delay shall not have materially impaired the rights of the indemnifying Party.

10.4 **Insurance**.

(a) Within 30 days following the Effective Date, Licensee shall procure at its sole expense and provide to COH evidence of comprehensive or commercial general liability insurance (contractual liability included) with limits of at least: (i) each occurrence, $*; (ii) products/completed operations aggregate, $*; (iii) personal and advertising injury, $*; and general aggregate (commercial form only), $*.

(b) The foregoing policies will provide primary coverage to COH and shall name the COH Indemnitees as additional insureds, and shall remain in effect during the term of this Agreement and for * years following the termination or expiration of the term of this Agreement. The COH Indemnitees shall be notified in writing by Licensee not less than 30 days prior to any modification, cancellation or non-renewal of such policy. Licensee's insurance must include a provision that the coverages will be primary and will not participate with nor will be excess over any valid and collective insurance or program of self-insurance carried or maintained by the COH Indemnitees. Such insurance coverage shall be maintained with an insurance company or companies having an A.M. Best's rating (or its equivalent) of A-XII or better.

(c) Licensee expressly understands that the coverage limits in Section 10.4(a) do not in any way limit the Licensee's liability.

*Confidential material redacted and filed separately with the Commission.

10.5 **LIMITATION ON DAMAGES**. **NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY, EXCEPT IN RELATION TO LICENSEE'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 10.1 AND ANY BREACH BY LICENSEE OF ARTICLE 11 (I) IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, PUNITIVE, CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS, LOST BUSINESS OR ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT) WHETHER BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR ANY OTHER LEGAL THEORY, AND (II) IN NO EVENT SHALL COH BE LIABLE TO LICENSEE FOR AN AGGREGATE AMOUNT IN EXCESS OF TWO-THIRDS OF THE TOTAL CONSIDERATION PAID TO COH HEREUNDER.**

ARTICLE 11: CONFIDENTIALITY

11.1 **Confidential Information**. During the term of this Agreement and for * years thereafter without regard to the means of termination: (i) COH shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose to any Third Party Licensee Confidential Information; and (ii) Licensee shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose COH Confidential Information to any Third Party. The Parties shall take reasonable measures to assure that no unauthorized use or disclosure is made by others to whom access to such information is granted.

11.2 **Exceptions**. Notwithstanding the foregoing, a Party may use and disclose Confidential Information of the other Party as follows:

(a) if required by applicable law, rule, regulation, government requirement and/or court order, provided, that, the disclosing Party promptly notifies the other Party of its notice of any such requirement and provides the other Party a reasonable opportunity to seek a protective order or other appropriate remedy and/or to waive compliance with the provisions of this Agreement;

(b) to the extent such use and disclosure occurs in the filing or publication of any patent application or patent on inventions;

(c) as necessary or desirable for securing any regulatory approvals, including pricing approvals, for any Licensed Products or Licensed Services, provided, that, the disclosing Party shall take all reasonable steps to limit disclosure of the Confidential Information outside such regulatory agency and to otherwise maintain the confidentiality of the Confidential Information;

(d) to take any lawful action that it deems necessary to protect its interest under, or to enforce compliance with the terms and conditions of, this Agreement;

*Confidential material redacted and filed separately with the Commission.

(e) to the extent necessary, to its Affiliates, directors, officers, employees, consultants, vendors and clinicians under written agreements of confidentiality at least as restrictive as those set forth in this Agreement, who have a need to know such information in connection with such Party performing its obligations or exercising its rights under this Agreement; and

(f) by Licensee, to actual and potential investors, licensees, Sublicensees, consultants, vendors and suppliers, and academic and commercial collaborators, under written agreements of confidentiality at least as restrictive as those set forth in this Agreement.

11.3 **Certain Obligations**. During the Term and for a period of * years thereafter and subject to the exceptions set forth in Section 11.2 Licensee, with respect to COH Confidential Information, and COH, with respect to Licensee Confidential Information, agree:

(a) to use such Confidential Information only for the purposes contemplated under this Agreement,

(b) to treat such Confidential Information as it would its own proprietary information which in no event shall be less than a reasonable standard of care,

(c) to take reasonable precautions to prevent the disclosure of such Confidential Information to a Third Party without written consent of the other Party, and

(d) to only disclose such Confidential Information to those employees, agents and Third Parties who have a need to know such Confidential Information for the purposes set forth herein and who are subject to obligations of confidentiality no less restrictive than those set forth herein.

11.4 **Termination**. Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), and upon the request of the disclosing Party, the receiving Party shall promptly return to the disclosing Party or destroy all copies of Confidential Information received from such Party, and shall return or destroy, and document the destruction of, all summaries, abstracts, extracts, or other documents which contain any Confidential Information of the other Party in any form, except that each Party shall be permitted to retain a copy (or copies, as necessary) of such Confidential Information for archival purposes or to enforce or verify compliance with this Agreement, or as required by any applicable law or regulation.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 12: DISPUTE RESOLUTION

All Disputes shall be first referred to a Vice President, Center for Applied Technology Development of COH (the "**COH VP**") and the President of Licensee for resolution, prior to proceeding under the other provisions of this Article 12. A Dispute shall be referred to such executives upon one Party (the " **Initiating Party**") providing the other Party (the "**Responding Party**") with notice that such Dispute exists, together with a written statement describing the Dispute with reasonable specificity and proposing a resolution to such Dispute that the Initiating Party is willing to accept, if any. Within ten days after having received such statement and proposed resolution, if any, the Responding Party shall respond with a written statement that provides additional information, if any, regarding such Dispute, and proposes a resolution to such Dispute that the Responding Party is willing to accept, if any. In the event that such Dispute is not resolved within 60 days after the Responding Party's receipt of the Initiating Party's notice, either Party may bring and thereafter maintain suit against the other with respect to such Dispute; provided, however, that the exclusive jurisdiction of any such suit shall be the state and federal courts located in Los Angeles County, California, and the Parties hereby consent to the exclusive jurisdiction and venue of such courts.

ARTICLE 13: GOVERNMENTAL MATTERS

13.1 **Governmental Approval or Registration**. If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee shall assume all legal obligations to do so. Licensee shall notify COH if it becomes aware that this Agreement is subject to a U.S. or foreign government reporting or approval requirement. Licensee shall make all necessary filings and pay all costs including fees, penalties and all other out-of-pocket costs associated with such reporting or approval process.

13.2 **Export Control Laws**. Licensee shall observe all applicable U.S. and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations and the Export Administration Regulations.

13.3 **Preference for United States Industry**. If Licensee sells a Licensed Product in the U.S., Licensee shall make Commercially Reasonable Efforts to manufacture said product substantially in the U.S.

ARTICLE 14: MISCELLANEOUS

14.1 **Assignment and Delegation**. Except as expressly provided in this Section 14.1, neither this Agreement nor any right or obligation hereunder shall be assignable in whole or in part, whether by operation of law, or otherwise by Licensee without the prior written consent of COH. Notwithstanding the foregoing, Licensee may assign or transfer its rights and obligations under this Agreement to a Person that succeeds to all or substantially all of that Party's business or assets, whether by sale, merger, operation of law or otherwise and provided that such Person agrees, in form and substance reasonably acceptable to COH, to be bound as a direct party to this Agreement in lieu of or in addition to Licensee and provided further that Licensee has complied with its obligations pursuant to Section 4.4. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the Parties hereto and their respective successors and permitted assignees. Any transfer or assignment of this Agreement in violation of this Section 14.1 shall be null and void.

14.2 **Entire Agreement**. This Agreement contains the entire agreement between the Parties relating to the subject matter hereof, and all prior understandings, representations and warranties between the Parties are superseded by this Agreement.

14.3 **Amendments**. Changes and additional provisions to this Agreement shall be binding on the Parties only if agreed upon in writing and signed by the Parties.

14.4 **Applicable Law**. This Agreement shall be construed and interpreted in accordance with the laws of the State of California and all rights and remedies shall be governed by such laws without regard to principles of conflicts of law.

14.5 **Force Majeure**. If the performance of this Agreement or any obligations hereunder is prevented, restricted or interfered with by reason of earthquake, fire, flood or other casualty or due to strikes, riot, storms, explosions, acts of God, war, terrorism, or a similar occurrence or condition beyond the reasonable control of the Parties, the Party so affected shall, upon giving prompt notice to the other Parties, be excused from such performance during such prevention, restriction or interference, and any failure or delay resulting therefrom shall not be considered a breach of this Agreement.

14.6 **Severability**. The Parties do not intend to violate any public policy or statutory common law. However, if any sentence, paragraph, clause or combination of this Agreement is in violation of any law or is found to be otherwise unenforceable, such sentence, paragraph, clause or combination of the same shall be deleted and the remainder of this Agreement shall remain binding, provided that such deletion does not alter the basic purpose and structure of this Agreement.

14.7 **Notices**. All notices, requests, demands, and other communications relating to this Agreement shall be in writing in the English language and shall be delivered in person or by mail, international courier or facsimile transmission (with a confirmation copy forwarded by courier or mail). Notices sent by mail shall be sent by first class mail or the equivalent, registered or certified, postage prepaid, and shall be deemed to have been given on the date actually received. Notices sent by international courier shall be sent using a service which provides traceability of packages. Notices shall be sent as follows:

Notices to COH:

Office of Technology Licensing
City of Hope
1500 East Duarte Road
Duarte, CA 91010
Attn: Sr. VP, Center for Applied Technology Development
Fax 626-301-8175

with a copy to:

Office of General Counsel
City of Hope
1500 East Duarte Road
Duarte, CA 91010
Attn: General Counsel
Fax 626-301-8863

Notices to Licensee:

Mustang Bio, Inc.
2 Gansevoort, 9th Floor
New York, NY 10014
Attn: CEO

with a copy to:

Mustang Bio, Inc.
2 Gansevoort, 9th Floor
New York, NY 10014
Attn: Corporate Counsel

Either Party may change its address for notices or facsimile number at any time by sending notice to the other Party.

14.8 **Independent Contractor**. Nothing herein shall create any association, partnership, joint venture, fiduciary duty or the relation of principal and agent between the Parties hereto, it being understood that each Party is acting as an independent contractor, and neither Party shall have the authority to bind the other or the other's representatives in any way.

14.9 **Waiver**. No delay on the part of either Party hereto in exercising any power or right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any power or right hereunder preclude other or further exercise thereof or the exercise of any other power or right. No waiver of this Agreement or any provision hereof shall be enforceable against any Party hereto unless in writing, signed by the Party against whom such waiver is claimed, and shall be limited solely to the one event.

14.10 **Interpretation**. This Agreement has been prepared jointly and no rule of strict construction shall be applied against either Party. In this Agreement, the singular shall include the plural and vice versa and the word "including" shall be deemed to be followed by the phrase "without limitation." The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

14.11 **Counterparts**. This Agreement may be executed in counterparts, each of which together shall constitute one and the same Agreement. For purposes of executing this agreement, a facsimile copy or an emailed PDF of this Agreement, including the signature pages, will be deemed an original.

14.12 **Licensee Certification**. Licensee certifies to COH, under penalty of perjury, that Licensee has not been convicted of a criminal offense related to health care, is not currently debarred, excluded or otherwise ineligible for participation in federally funded health care programs and has not arranged or contracted (by employment or otherwise) with any employee, contractor, or agent that it knew or should have known are excluded from participation in any federal health care program, and will not knowingly arrange or contract with any such individuals or entities during the term of this Agreement. Licensee agrees to notify COH in writing immediately of any threatened, proposed or actual conviction relating to health care, of any threatened, proposed or actual debarment or exclusion from participation in federally funded programs, of COH or any employee, contractor or agent of COH. Any breach of this Section 14.12 by Licensee shall be grounds for termination of this Agreement by COH in accordance with Section 8.2.1.

14.13 **Publicity**. Neither Party may issue a press releases or otherwise disclose the existence or terms of this Agreement without the prior written consent of the other Party; provided, however, that once the existence or any terms or conditions of this Agreement has been publicly disclosed in a manner mutually and reasonably agreed-to by the Parties, either Party may republish the facts previously disclosed without the prior consent of the other Party. COH may, in its sole discretion and without the approval of Licensee, publicly disclose the existence of this Agreement and the overall potential value of the Agreement to COH, so long as the detailed and specific terms and conditions of this Agreement are not disclosed. If a third party inquires whether a license is available, COH may disclose the existence of the Agreement and the extent of its grant in Section 3.1 to such third party, but will not disclose the name of the Licensee, except where COH is required to release information under either the California Public Records Act or other applicable law. Notwithstanding the foregoing, COH may disclose an unredacted copy of this Agreement as required under applicable law and other obligations as applicable to the CIRM Grant.

14.14 **No Third Party Beneficiaries**. Except for the rights of the COH Indemnities pursuant to Article 10, nothing in this Agreement, either express or implied, is intended to or shall confer upon any Third Party any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives.

MUSTANG BIO, INC.		CITY OF HOPE	
By:	/s/ Michael S. Weiss	By:	/s/ Robert Stone
Name	Michael S. Weiss	Name:	Robert Stone
Title:	President & CEO	Title:	President & CEO

CONFIDENTIAL TREATMENT REQUESTED. Confidential portions of this document have been redacted and have been separately filed with the Commission.

Exhibit 10.14

AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT – CD123

THIS AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT – CD123 (the "**Agreement**") is made and entered into as of the 17th day of February, 2017 (the "**A&R Effective Date**") by and between Mustang Bio, Inc. (f/k/a Mustang Therapeutics, Inc.), a Delaware corporation with a principal place of business at 2 Gansevoort, 9th Floor, New York, NY 10014 ("**Licensee**") and City of Hope, a California nonprofit public benefit corporation located at 1500 East Duarte Road, Duarte, California 91010 ("**City of Hope**" or "**COH**"). Licensee and COH are each sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**."

WHEREAS:

A. COH operates an academic research and medical center that encourages the use of its inventions, discoveries and intellectual property for the benefit of the public, and COH owns or Controls (as defined below) certain CD123 Patent Rights (as defined below) useful in the Field (as defined below);

B. The inventions covered by the CD123 Patent Rights were invented by Dr. Stephen Forman who, as of the A&R Effective Date, is affiliated with COH;

C. The research was sponsored in part by the National Institute of Health, and as a consequence this license is subject to obligations to the United States Federal Government under 35 U.S.C. §§ 200-212 and applicable U.S. government regulations;

D. It is contemplated that certain clinical trials relating to CD123 will be sponsored in part by a grant from the Damon Runyon Cancer Research Foundation (**DRCRF Grant**") through the Damon Runyon Clinical Investigator Award, and as a consequence, this Agreement is subject to applicable law, as well as the terms and conditions of the DRCRF Grant;

E. Licensee is a company dedicated to the commercial development and exploitation in the Field (as defined below) of products and services that incorporate one or more of the technologies described in the CD123 Patent Rights and therefore Licensee desires to obtain from COH a worldwide, exclusive license under the CD123 Patent Rights, on the terms and subject to the conditions set forth herein;

F. The Certificate of Incorporation of Licensee as of the A&R Effective Date is in the form attached hereto as Exhibit A (the "**Charter**") and provides, among other things, for the rights and preferences of a class of stock, referred to therein as Class A Common Stock, that was issued to COH or its designee(s) in accordance with the terms of the Original Agreement;

G . COH and Licensee have entered into (i) that certain Exclusive License Agreement, dated March 17, 2015 (the "**Original Effective Date**") (said agreement hereafter referred to as the "**Original Agreement**"), whereby COH granted to Licensee certain exclusive rights in certain patent rights related to IL-13, CD123, and spacer technologies, and (ii) that certain Sponsored Research Agreement between the Parties dated March 2015 (the "**Research Agreement**"); and

H. COH and Licensee now desire to amend and restate the Original Agreement, which related to certain chimeric antigen receptor ("**CAR**") technologies in connection with IL-13, CD123, and spacer technologies by entering into three separate amended and restated exclusive license agreements, one relating to IL-13 (the "**A&R IL-13 License**"), one relating to the spacer (the "**A&R Spacer License**"), and one relating to CD123 (this Agreement), that will also include certain rights to certain CTA Inventions (defined below) and Study Data (defined below), amend the Original Agreement in certain other respects, and collectively replace the Original Agreement in its entirety.

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

ARTICLE 1: DEFINITIONS

1.1 "**Act**" means the Securities Act of 1933, as amended.

1.2 "**Affiliate**" of a Party means a Person that, directly or indirectly (through one or more intermediaries) controls, is controlled by, or is under common control with such Party. For purposes of this Section 1.2, "control" means (i) the direct or indirect ownership of 50 percent or more of the voting stock or other voting interests or interests in profits, or (ii) the ability to otherwise control or direct the decisions of board of directors or equivalent governing body thereof.

1.3 "**Business Day**" means any day, other than a Saturday, Sunday or day on which commercial banks located in Los Angeles, California, are authorized or required by law or regulation to close.

1.4 "**CD123 Patent Rights**" means: (i) Patent Cooperation Treaty (PCT) application no. PCT/US*;(ii) US patent application no. *; (iii) patents, patent applications, continuation and divisional applications and foreign equivalents that claim the same invention(s) and priority date as the foregoing; (iv) continuation-in-part applications that repeat a substantial portion of any of the foregoing applications; (v) Letters Patent or the equivalent issued on any of the foregoing applications throughout the world; (vi) amendments, extensions, renewals, reissues, and re-examinations of any of the foregoing; and (vii) subject to Section 8.2.4, the CTA Inventions. Notwithstanding the foregoing, "CD123 Patent Rights" shall only include any continuation-in-part application to the extent that claims in such continuation-in-part application are supported in the specification of the parent application, unless otherwise mutually agreed to in writing by the parties to this Agreement.

*Confidential material redacted and filed separately with the Commission.

1.5 "**Change of Control**" means (i) any transaction or series of related transactions following which the holders of Licensee's capital stock immediately prior to such transaction or series of related transactions collectively are the owners of less than 50% of the outstanding equity interests of Licensee entitled to (a) vote with respect to the election of directors (or positions having a similar function) or (b) receive the proceeds upon any sale, liquidation or dissolution of Licensee, (ii) a sale, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, of all or a material portion of Licensee's interest in the Licensed Product or Licensed Service or (iii) a sale, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, of all or a material portion of Licensee's right title, or interest in its assets taken as a whole.

1.6 "**Class A Common Stock**" means Class A Common Stock, par value $0.0001 per share, of Licensee, with such rights preferences and privileges as are set forth in the Charter.

1.7 "**COH CAR**" means a CAR that is licensed to Licensee by COH pursuant to an applicable license agreement between the Parties, including but not limited to, pursuant to this Agreement and the A&R IL-13 License.

1.8 "**COH Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, COH to Licensee or its designees.

1.9 "**COH Shares**" means the shares of Class A Common Stock issued and to be issued to COH Stockholders in accordance with Section 4.3 of the Original Agreement and this Agreement and/or the terms of the Charter.

1.10 "**COH Spacer Technology**" means any spacer, hinge, or linker sequence(s) that is used to connect the extracellular ligand-binding domain to transmembrane and intracellular-signaling domains of an applicable CAR and that is covered by a Valid Claim under the Spacer Patent Rights.

1.11 "**Commercially Reasonable Efforts**" means the exercise of such efforts and commitment of such resources by Licensee, directly or through one or more Sublicensees, in a diligent manner consistent with organizations in the pharmaceutical industry for a comparable development or commercialization program at a similar stage of development or commercialization. In the event that Licensee or a Sublicensee with respect to a given Licensed Product or Licensed Service, has a program or product that competes with the programs contemplated by this Agreement with respect to such Licensed Product or Licensed Service, then "Commercially Reasonable Efforts" shall also mean efforts at least comparable to those efforts and resources expended by Licensee or its Sublicensee on the competing program and/or product or service.

1.12 "**Completion**" means, with respect to a particular clinical trial, the earlier of (i) the database lock or freeze related to the completion of treatment or examination of participants in such clinical trial or (ii) the dosing of the first patient in a clinical trial in a subsequent phase (e.g., with respect to a Phase 1 Clinical Trial, the Phase 1 Clinical Trial will be deemed completed in the event a patient is dosed in a Phase 2 Clinical Trial before a database lock in the related Phase 1 Clinical Trial).

1.13 "**Common Stock**" means Common Stock, par value $0.0001 per share, of Licensee.

1.14 "**Confidential Information**" means: (i) all information and materials (of whatever kind and in whatever form or medium) disclosed by or on behalf of a Party to the other Party (or its designee) in connection with this Agreement, whether prior to or during the term of this Agreement and whether provided orally, electronically, visually, or in writing; provided that all such information and materials initially disclosed in writing or electronically shall be clearly marked as "CONFIDENTIAL" and all such materials and information initially disclosed orally shall be reduced to writing and marked as "CONFIDENTIAL" within 10 days following the date of initial oral disclosure; (ii) all copies of the information and materials described in (i) above; and (iii) the existence and each of the terms and conditions of this Agreement; provided further that Confidential Information shall not include information and materials to the extent a Party can demonstrate through its contemporaneous written records that such information and materials are or have been:

(a) known to the receiving Party, or in the public domain, at the time of its receipt by a Party, or which thereafter becomes part of the public domain other than by virtue of a breach of this Agreement or the obligations of confidentiality under this Agreement;

(b) received without an obligation of confidentiality from a Third Party having the right to disclose without restrictions such information;

(c) independently developed by the receiving Party without use of or reference to Confidential Information disclosed by the other Party; or

(d) released from the restrictions set forth in this Agreement by the express prior written consent of the disclosing Party.

1.15 "**Control(s)**" or "**Controlled**" means the possession by a Party, as of the A&R Effective Date, of rights sufficient to effect the grant of rights set forth in this Agreement without violating the terms of any agreement with any Third Party.

1.16 "**Covers**" or "**Covered by**," means with reference to a particular Licensed Product or Licensed Service that the manufacture, use, sale, offering for sale, or importation of such Licensed Product or performance of such Licensed Service would, but for ownership of, or a license granted under this Agreement to, the relevant CD123 Patent Right, infringe a Valid Claim under the CD123 Patent Rights in the country in which the activity occurs.

1.17 "**CTA**" means an Investigator-Initiated Clinical Research Support Agreement between Licensee and City of Hope National Medical Center relating to T cells lentivirally transduced to express a * and a * that is materially consistent with the form set forth in Exhibit B.

1.18 "**CTA Inventions**" means any patentable inventions, discoveries, and innovations conceived and reduced to practice by Institution Personnel solely relating to T cells lentivirally transduced to express a * and a * used in connection with the Protocol.

1.19 "**Dispute**" means any controversy, claim or legal proceeding arising out of or relating to this Agreement, or the interpretation, breach, termination, or invalidity thereof.

*Confidential material redacted and filed separately with the Commission.

1.20 "**Field**" means the treatment and diagnosis of all human diseases.

1.21 "**First Commercial Sale**" means, with respect to a particular Licensed Product or Licensed Service in a given country, the first arm's-length commercial sale of such Licensed Product or the first performance of such Licensed Service following Marketing Approval in such country by or under authority of Licensee or any Sublicensee to a Third Party who is not a Sublicensee.

1.22 "**GAAP**" means generally accepted accounting principles, consistently applied, as promulgated from time to time by the Financial Accounting Standards Board.

1.23 "**Institution Personnel**" has the meaning set forth in Section 1 of the CTA.

1.24 "**License Year**" means each calendar year during the term of this Agreement; except that the first License Year shall commence on the Original Effective Date and end on December 31 of the calendar year in which the Original Effective Date occurs.

1.25 "**Licensed Product**" means a product (including kits, component sets or components thereof, regardless of concentration or formulation) that: (i) is Covered by a Valid Claim under the CD123 Patent Rights, (ii) is manufactured by a process or used in a method Covered by a Valid Claim under the CD123 Patent Rights, or (iii) contains, as an active ingredient, any substance the manufacture, use, offer for sale or sale of which is Covered by a Valid Claim under the CD123 Patent Rights. By way of clarification, "Licensed Product" shall include a product manufactured in a country in which such manufacture is Covered by a Valid Claim under the CD123 Patent Rights and thereafter exported to and sold in a country in which no Valid Claim under the CD123 Patent Rights exists.

1.26 "**Licensed Service**" means any service the performance of which would, but for the license granted herein, infringe a Valid Claim under the CD123 Patent Rights.

1.27 "**Licensee Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, Licensee to COH or its designees.

1.28 "**Marketing Approval**" means all approvals, licenses, registrations or authorizations of any federal, state or local regulatory agency, department, bureau or other governmental entity, necessary for the manufacturing, use, storage, import, transport, marketing and sale of Licensed Products or performance of Licensed Services in a country or regulatory jurisdiction.

1.29 "**Net Proceeds**" means the net proceeds actually received by Licensee from all sales of shares of capital stock after deduction of all transaction expenses, finder's fees, advisory fees, legal fees, sales commissions or similar amounts paid to brokers or dealers and other costs and expenses incurred by Licensee or its subsidiaries in connection therewith. In the event such net proceeds are not paid to Licensee in cash, the value of such net proceeds will be the fair market value of the assets constituting such net proceeds.

1.30 "**Net Sales**" means the total gross amount invoiced by Licensee, its Affiliates and its Sublicensees (regardless of whether and when such invoices are actually paid) on the sale of Licensed Products and Licensed Services to Third Parties (including, without limitation, the provision of any product by Licensee, its Affiliates or any of its Sublicensee that incorporates a Licensed Product or Licensed Service but for clarity excluding documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead)), less the following items, as determined from the books and records of Licensee, its Affiliates or its Sublicensees:

(a) insurance, handling and transportation charges actually invoiced;

(b) amounts repaid, credited or allowed for rejection, return or recall;

(c) sales or other excise taxes or other governmental charges levied on or measured by the invoiced amount (including, without limitation, value added taxes);

(d) brokerage, customs and import duties or charges; and

(e) normal and customary trade and quantity discounts (including chargebacks and allowances) and rebates which relate to the Licensed Products or Licensed Services.

Sales of Licensed Products between or among Licensee, its Affiliates or its Sublicensees shall be excluded from the computation of Net Sales, except in those instances in which the purchaser is also the end-user of the Licensed Product sold. Further, transfers of reasonable quantities of Licensed Product by Licensee, any of its Affiliates or of its Sublicensee to a Third Party that is not a Sublicensee for use in the development of such Licensed Product (and not for resale) and transfers of industry standard quantities of Licensed Product for promotional purposes shall not be deemed a sale of such Licensed Product that gives rise to Net Sales for purposes of this Section 1.30.

1.31 "**Person**" means any person or entity, including any individual, trustee, corporation, partnership, trust, unincorporated organization, limited liability company, business association, firm, joint venture or governmental agency or authority.

1.32 "**Phase 1 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a study as described in 21 C.F.R. §312.21(a) or a comparable clinical study in a country other than the United States.

1.33 "**Phase 2 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a study in humans designed with the principal purpose of determining initial efficacy and dosing of such Licensed Product in patients for the indication(s) being studied as described in 21 C.F.R. §312.21(b); or a similar clinical study in a country other than the United States.

1.34 "**Phase 3 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a lawful study in humans of the efficacy and safety of such Licensed Product or Licensed Service, which is prospectively designed to demonstrate statistically whether such Licensed Product is effective and safe for use in a particular indication in a manner sufficient to file an application to obtain Marketing Approval to market and sell that Licensed Product or Licensed Service in the United States or another country for the indication being investigated by the study, as described in 21 C.F.R. § 312.21(c); or similar clinical study in a country other than the United States.

1.35 "**Protocol**" has the meaning set forth in Section 1 of the CTA.

1.36 "**Qualified Financing**" means the sale of capital stock of Licensee, in one or more transactions, that constitute a bona fide equity financing at such time as the Net Proceeds to Licensee from third party investors that are not Affiliates of Licensee in such equity financing(s) are less than or equal to the Qualified Financing Protection Ceiling; provided that if capital stock of Licensee is sold in a single transaction or series of related transactions for different purchase prices and any of such shares of capital stock are included for purposes of determining the number of shares of Qualifying Stock to be issued to COH pursuant to Section 4.3, each share of capital stock that is sold for the lowest purchase price shall be deemed to be have sold first (regardless of the date on which such shares are actually sold) and the next number of shares of capital stock that are sold for the next highest purchase price shall be deemed to have sold next, et cetera, until the Net Proceeds from all such sales (applying all transaction expenses to the first shares issued (except to the extent that such expenses are calculated on a per share basis, such as sales commission, which shall be applied only to the shares included in such calculation) are equal to the Qualified Financing Protection Ceiling.

1.37 "**Qualified Financing Protection Ceiling**" means $*.

1.38 "**Qualified Public Offering**" means the first public offering of the Common Stock of Licensee to the general public that is effected pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Act, as amended, but, for purposes of clarity shall not include an offering effected pursuant to a registration statement on Form S-8 or any successor form.

1.39 "**Qualifying Stock**" means the sum of: (i) the shares of Class A Common Stock issued and to be issued to COH in accordance with Section 4.3, (ii) the number of shares of Common Stock (excluding (x) the shares referenced in the foregoing subclause (i) and (y) shares issued to employees, directors and consultants in their capacity as such) of Licensee outstanding, and (iii) the maximum number of shares of Common Stock of Licensee issuable (assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability) upon the exercise, conversion or exchange of all evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock of the Licensee, including all rights, options or warrants to subscribe for, purchase or otherwise acquire shares of Common Stock of the Licensee but excluding options and rights granted to employees, directors and consultants in their capacity as such).

1.40 "**Spacer Patent Rights**" means: (i) Patent Cooperation Treaty (PCT) application no. PCT/US*; (ii) US patent application no. *; (iii) patents, patent applications, continuation and divisional applications and foreign equivalents that claim the same invention(s) and priority date as the foregoing; (iv) continuation-in-part applications that repeat a substantial portion of any of the foregoing applications; (v) Letters Patent or the equivalent issued on any of the foregoing applications throughout the world; (vi) amendments, extensions, renewals, reissues, and re-examinations of any of the foregoing; and (vii) any claim in a patent or patent application licensed to Licensee by COH pursuant to an applicable license agreement that claims (a) a COH CAR, and (b) the spacer, hinge, or linker sequence(s) that is used to connect the extracellular ligand-binding domain to transmembrane and intracellular-signaling domains of such COH CAR covered by a Valid Claim of any of the foregoing. Notwithstanding the foregoing, "**Spacer Patent Rights**" shall only include any continuation-in-part application to the extent that claims in such continuation-in-part application are supported in the specification of the parent application, unless otherwise mutually agreed to in writing by the parties to this Agreement.

*Confidential material redacted and filed separately with the Commission.

1.41 "**Study Data**" means all results, data, analyses, reports, and other documentation relating to central memory enriched T cells lentivirally transduced to express a CD123-Specific, hinge-optimized, CD28-costimulatory chimeric antigen receptor and a truncated EGFR resulting from, or generated in the course of or with respect to, the performance of the Protocol.

1.42 "**Sublicensee**" means any Affiliate of Licensee or Third Party which enters into an agreement with Licensee involving the grant to such Affiliate or Third Party of any rights under the license granted to Licensee pursuant to this Agreement.

1.43 "**Sublicense Revenues**" means all consideration, in whatever form, due from a Sublicensee in return for the grant of a sublicense of Licensee's rights hereunder, excluding consideration in the form of: (i) royalties received by Licensee and calculated wholly as a function of sales of Licensed Products or Licensed Services, (ii) payments or reimbursement for documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead), (iii) payment or reimbursement of reasonable patent expenses actually incurred or paid by Licensee and not otherwise reimbursed, or payment of patent expenses required to by paid by Licensee hereunder, (iv) payments for the purchase of equity in Licensee at the fair market value of such equity, and (v) payments recognized as Net Sales under this Agreement for which a royalty is payable to COH. By way of clarification, the principal amount of any loan or other extension of credit provided to Licensee or an Affiliate of Licensee in connection with the grant of a sublicense by Licensee that is other than an arm's-length credit relationship shall be deemed to constitute "Sublicense Revenues."

1.44 "**Territory**" means the entire world.

1.45 "**Third Party**" means a Person that is neither a Party to this Agreement nor an Affiliate of a Party.

1.46 "**Valid Claim**" means a claim of a pending patent application or an issued and unexpired patent included in, as applicable, the CD123 Patent Rights or the Spacer Patent Rights, in a particular jurisdiction, which claim has not, in such jurisdiction been finally rejected or been declared invalid or cancelled by the patent office or a court of competent jurisdiction in a decision that is no longer subject to appeal as a matter of right.

ARTICLE 2: DEVELOPMENT AND COMMERCIALIZATION EFFORTS

2.1 **Development and Commercialization Responsibilities**. Licensee shall have the sole right and responsibility for, and control over, all development, manufacturing and commercialization activities (including all regulatory activities) with respect to Licensed Products and Licensed Services in the Field.

2.2 **Licensee Diligence**. Licensee shall use Commercially Reasonable Efforts to develop and commercialize Licensed Products and Licensed Services in the Field, directly or through one or more Sublicensees. Without limiting the foregoing, if Licensee, directly or through one or Sublicensees, fails to accomplish any one of the "**Diligence Milestones**" set forth in this Section 2.2 by the date specified (each a "**Deadline Date**") corresponding to such Diligence Milestone, COH shall have the right, on notice to Licensee, to terminate this Agreement.

"**Deadline Date**"	"**Diligence Milestone**"
1. * (*) * from the Original Effective Date	Licensee to receive not less than $* through any combination of: (i) Net Proceeds from the sale of any equity securities (or securities convertible into or exercisable for equity securities) and (ii) unrestricted grants or gifts.
2. * (*) * from the Original Effective Date	Licensee to * (with COH listed as principal institution for the clinical trial). Licensee may extend this Deadline Date for up to * (*) additional * (*) month periods upon payment of $* to COH, for each * month (*) period.
3. * (*) * from the Original Effective Date	Licensee to * (with COH listed as principal institution for the clinical trial). Licensee may extend this Deadline Date for up to * (*) additional * (*) month periods upon payment of $* to COH for each * month (*) period. If, however, this Diligence Milestone is not achieved after these * (*) extensions through no fault of Licensee, this Diligence Milestone will be additionally extended for as long as the Research Agreement is in effect.

*Confidential material redacted and filed separately with the Commission.

2.3 **Governance**. COH and Licensee shall each designate one individual to serve as the main point of contact for communications related to development and commercialization of Licensed Products and Licensed Services under this Agreement (each a "**Designated Representative**"). The initial Designated Representative of COH shall be George Megaw and the initial Designated Representative of Licensee shall be Michael S. Weiss. Each Party may replace its Designated Representative at any time upon prior notice to the other Party. Licensee shall keep COH reasonably informed as to progress in the development and commercialization of Licensed Products and Licensed Services. Without limiting the foregoing, on or before January 15 and July 15 of each year during the term of this Agreement, Licensee shall provide to COH a written report setting forth, in reasonable detail, its activities and achievements with respect to the development and commercialization of Licensed Products and Licensed Services during the preceding six months (the "**Semi-Annual Report**"). Each Semi-Annual Report shall also include the COH reference number, OTL 16-543. The Designated Representatives shall meet in person twice each calendar year to present and discuss the current Semi-Annual Report at such location and date as mutually agreed. Each Party shall be responsible for all expenses incurred by its Designated Representative in the participation in such annual meetings. A copy of each Semi-Annual Report shall be provided, in addition to the persons set forth in Section 14.7, to: The Office of Technology Licensing, email: licensing@coh.org.

ARTICLE 3: LICENSE GRANTS

3.1 **Grant of Rights**.

3.1.1 Exclusive Patent License. COH hereby grants to Licensee an exclusive royalty-bearing right and license under the CD123 Patent Rights to make, have made, use, offer for sale, sell and import Licensed Products and to perform Licensed Services, in the Field, in the Territory; **provided**, **however**, the foregoing license does not include any right or license under any patent claim of the CD123 Patent Rights that includes a limitation directed toward the COH Spacer Technology. The Parties acknowledge and agree that Licensee is granted rights to practice such COH Spacer Technology pursuant to the A&R Spacer License.

3.1.2 Exclusive Study Data License. Subject to Section 8.2.4, COH hereby grants to Licensee an exclusive right and license under the Study Data to make, have made, use, offer for sale, sell and import Licensed Products and to perform Licensed Services, in the Field, in the Territory.

3.1.3 The foregoing grant of rights shall be subject to: (i) the retained rights of the U.S. Government in the CD123 Patent Rights pursuant to 35 U.S.C. §§ 200-212 and applicable U.S. government regulations, (ii) the royalty-free right of COH and its Affiliates to practice the CD123 Patent Rights and the Study Data for educational and research uses, (iii) the right of COH and its Affiliates to publicly disclose research results including, to the extent applicable, as specified in the Research Agreement, and (iv) the right of COH and its Affiliates to allow other non-profit institutions to use the CD123 Patent Rights and the Study Data for the same purposes as (ii) and (iii).

3.2 **No Implied Licenses**. Licensee acknowledges that the licenses granted in this Agreement are limited to the scope expressly granted and that, subject to the terms and conditions of this Agreement, all other rights under all CD123 Patent Rights, the Study Data, and other intellectual property rights Controlled by COH are expressly reserved to COH.

3 . 3 **Sublicensing**. Licensee shall have the right to sublicense its rights hereunder without the consent of COH, effective on notice to COH. The terms and conditions of each sublicense of Licensee's rights hereunder shall be consistent with this Agreement. A true and complete copy of each sublicense of Licensee's rights hereunder, as well as any amendment thereto, shall be delivered to COH promptly following the effective date of each such sublicense or amendment.

3.4 **Effect of Termination on Sublicenses.**

(a) In the event that this Agreement terminates at any time for any reason, each sublicense validly granted hereunder which is in good standing as of the effective date of such termination shall continue in effect as a direct license between COH (as licensor) and Sublicensee (as licensee), provided that: (i) such sublicense, as determined by COH in its reasonable and good faith discretion, contains or imposes on COH no material obligation or liability additional to those set forth in this Agreement, (ii) the Sublicensee delivers to COH, within thirty (30) days of the effective date of the termination of this Agreement, written acknowledgement that all payment and other obligations previously payable to Licensee under such sublicense shall thereafter be payable and due, and be paid directly to COH, and (iii) such Sublicensee (including its employees and contractors) is not at such time debarred or excluded or otherwise ineligible for participation in federally funded programs. All other sublicenses in existence as of the effective date of the termination of this Agreement which fail to satisfy the foregoing conditions shall, upon such termination, terminate.

(b) Further and in addition to the requirements of Section 3.4(a), above, the conversion of a sublicense into a direct license between COH (as licensor) and Sublicensee (as licensee) upon termination of this Agreement shall require that either [A] or [B] (but not both), below, be satisfied:

[A] On the effective date of the termination of this Agreement:

(i) the Sublicensee is not a party to a proceeding in bankruptcy or insolvency filed by or against such Sublicensee, has not made a general assignment for the benefit of its creditors, and is not in litigation with COH or any Affiliate of COH, *and*

(ii) (1) the effective royalty rate payable on Sublicensee's Net Sales of Licensed Products and Licensed Services, (2) the aggregate of other non-sale/royalty-based consideration due from Sublicensee, and (3) the other material terms and conditions of the sublicense are materially no less favorable to COH than the corresponding terms (excluding the stock grant due pursuant to Section 4.3, below) of this Agreement, ***or***

[B] the terms and conditions of the sublicense had been approved by COH prior to its having been entered into by Licensee and the Sublicensee, such approval having been considered by COH expeditiously and not conditioned on the payment by Licensee of any additional consideration.

3.5 **Documentation of Licensed Services**. Licensee and its Sublicensees shall provide Licensed Services only pursuant to one or more written agreements which set forth, in reasonable detail, all consideration due to Licensee for the provision of such services. Licensee shall provide a true and complete copy of each such agreement to COH promptly following the effective date of such agreement.

ARTICLE 4: PAYMENTS

4.1 **Up-Front Payment**. The Parties acknowledge and agree that the non-refundable license fee of $* payable by Licensee within thirty (30) days after the Original Effective Date pursuant to the Original Agreement has been paid by Licensee as of the A&R Effective Date.

4.2 **License Maintenance Fee**. On or before the tenth Business Day after the end of each License Year (excluding the first License Year ending December 31, 2015), Licensee shall pay to COH a non-refundable license maintenance fee of $*. The license maintenance fee paid in a given License Year shall be applied as credit against royalties otherwise due to COH pursuant to Section 4.8, below, during the License Year in which payment was made but may not be carried over and applied as credit against royalties due in subsequent years.

4.3 **Stock Grant**.

(a) Concurrently with the execution of the Original Agreement, Licensee issued to COH stock certificates evidencing 333,333 validly issued, fully-paid, non-assessable shares of Class A Common Stock. At the closing of each Qualified Financing that occurs prior to the achievement of the Qualified Financing Protection Ceiling, Licensee will issue to COH and such reasonable number of designees as COH may specify (provided that each such designee has: (i) demonstrated to the reasonable satisfaction of Licensee that it is an "accredited investor" as such term is defined in Regulation D promulgated under the Securities Act of 1933 (the "**Act**"), (ii) represented to Licensee that it is acquiring the shares for investment purposes only, and (iii) acknowledged that the shares to be received are restricted securities under the Act (COH and its designees collectively, the "**COH Stockholders**"), stock certificates evidencing a number of shares of validly issued, fully-paid, non-assessable shares of Class A Common Stock that is determined such that upon the completion of such issuance, COH and its designees will hold 10% of the total number of shares of Qualifying Stock, calculated as of immediately after the closing of such Qualified Financing (the "**Measurement Date**"). Promptly after the applicable Measurement Date, Licensee will deliver to the COH Stockholders (i) certificates representing the shares of Class A Common Stock to be issued in accordance with the foregoing, and (ii) a certificate, executed on behalf of Licensee by an executive officer of Licensee, showing Licensee's calculation of the number of shares of Qualifying Stock as of the Measurement Date, the sales price of each share of capital stock issued in the Qualified Financings, and the gross proceeds and Net Proceeds of the Qualified Financings and Licensee's calculation of the shares of Class A Common Stock to be issued to the COH Stockholders. Such shares of Class A Common Stock will be issued in consideration for the benefits provided to Licensee under the Agreement and no additional consideration shall be payable for such shares of Class A Common Stock.

*Confidential material redacted and filed separately with the Commission.

(c) COH and the other COH Stockholders acknowledge and agree that the COH Shares will be restricted securities and will not be registered with the Securities and Exchange Commission or qualified with any state securities authority and that, accordingly, the COH Shares may not be distributed, sold or otherwise transferred except pursuant to an effective registration statement under the Act or pursuant to an available exemption from the registration requirements of the Act.

4.4 **First Public Offering Fee**. At the closing of the first Qualified Public Offering of stock of Licensee, Licensee shall pay COH a one-time non-refundable fee of $*.

4.5 **Sale of Business**. Upon any Change in Control of Licensee, Licensee shall pay COH a non-refundable fee of $*.

4.6 [Reserved]

4 . 7 **Milestone Payments**. Within thirty (30) days after the occurrence of each "**Milestone Event**" set forth below, Licensee shall pay COH or its designee the amount indicated below:

Milestone Event		**Amount Due**
#1. Upon *.	$	*
#2. Upon *.	$	*
#3. Upon the *.	$	*
#4. Upon the *.	$	*
#5. Upon *.	$	*
#6. Upon *.	$	*
#7. Upon *.	$	*
#8. Upon *.	$	*

In the event that any *, then Licensee shall also pay the amount due for occurrence of Milestone Event #5 upon receiving such * (*e.g.*, if *, Licensor shall pay COH $ *). The Parties agree that in the event that a *, then Licensee shall simultaneously pay the amounts due for occurrence of Milestone Event #1 and Milestone Event #2 (*e.g.*, if a *, Licensor shall pay COH $*). For clarity, each payment above shall be made only once, regardless of the number of Licensed Products or Licensed Services achieving each Development Milestone Event.

*Confidential material redacted and filed separately with the Commission.

4.8 **Royalties**.

(a) Subject to Subsection (c) and Section 4.9 below, Licensee shall pay to COH or its designee royalties in an amount equal to (i) * percent of Net Sales of Licensed Products up to and including $* ; (ii) * percent of Net Sales of Licensed Products greater than $* up to and including $*; and (iii) * percent of Net Sales of Licensed Products that exceed $*. Royalties shall be paid on a Licensed Product-by-Licensed Product and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims under the CD123 Patent Rights in such country Covering Licensed Product.

(b) Subject to Subsection (c) and Section 4.9 below, Licensee shall pay to COH or its designee royalties in an amount equal to (i) * percent of Net Sales of Licensed Services up to and including $*; (ii) * percent of Net Sales of Licensed Services greater than $* up to and including $*; and (iii) * percent of Net Sales of Licensed Services that exceed $*. Royalties shall be paid on a Licensed Service-by-Licensed Service and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims under the CD123 Patent Rights in such country Covering Licensed Service.

(c) Beginning in the calendar year of Marketing Approval in any jurisdiction of the first Licensed Product or Licensed Service by Licensee or Sublicensees and if the total earned royalties paid by Licensee under Sections 4.8(a) and (b) in any such year cumulatively amounts to less than $* for that calendar year ("**Minimum Annual Royalty**"), Licensee shall pay to COH on or before February 28 following the last quarter of such year the difference between the $* minimum royalty noted above and the total earned royalty paid by Licensee for such year under Sections 4.8(a) and (b), provided, however, that for the first year of commercial sales of the first Licensed Product or Licensed Services, the amount of minimum annual royalty payable shall be pro-rated for the number of months remaining in that calendar year.

4.9 **Royalty Offsets**.

4 . 9 . 1 Third Parties. If, in Licensee's reasonable business judgment it is necessary to pay to a Third Party other than a Sublicensee consideration (whether in the form of a royalty or otherwise) for the right to make, have made, use, sell, offer for sale or import a Licensed Product or Licensed Service in a given jurisdiction, and if the aggregate royalty rates of any and all royalties payable to such Third Party licensors when combined with the royalty rate payable to COH exceeds * percent in the case of Net Sales of Licensed Products or Licensed Services, then Licensee shall have the right with respect to any period for which royalties are due (*i.e*., a calendar quarter or calendar year) to set off * percent of the aggregate royalties otherwise payable with respect to such period and such jurisdiction to such Third Party licensors against royalties that would otherwise be due to COH hereunder with respect to such period and jurisdiction; provided, however, that each Third Party licensor agrees to be stacked proportionally; and provided further, however, that under no circumstances shall the royalty offsets permitted in this Section 4.9.1 result in the reduction of the effective adjusted royalty rate and the royalty amount otherwise due to COH in any period for which payment is due and in any jurisdiction pursuant to Section 4.8, above, by more than * percent (*e.g*., minimum effective adjusted royalty rate for Licensed Product or Licensed Services sales up to $* shall be * percent).

*Confidential material redacted and filed separately with the Commission.

4.9.2 A&R Spacer License. In the event that royalties are due to COH by Licensee pursuant to Section 4.7(b) of the A&R Spacer License, then Licensee may set off such royalties payable to COH against the royalties payable to COH by Licensee pursuant to Section 4.8 of this Agreement.

4.10 **Sublicense Revenues**. Licensee shall pay to COH a percentage of all Sublicense Revenues within thirty (30) days after payment is received from the relevant Sublicensee, determined as follows:

(a) * percent of Sublicense Revenues if the Sublicense is granted prior to the *,

(b) * percent of all Sublicense Revenues if the Sublicense is granted prior to the *,

(c) * percent of all Sublicense Revenues if the Sublicense is granted prior to the *, and

(d) * percent of all Sublicense Revenues if the Sublicense is granted after *.

If Sublicense Revenues are not in cash or cash equivalents, the percentage share payable to COH pursuant to this Section 4.10 shall be due, in COH's sole discretion, either in kind or in its cash equivalent.

4.11 **Timing of Royalty Payments**. Royalty payments due under Section 4.8, above, shall be paid annually within sixty (60) days following the end of each License Year until the first License Year in which aggregate Net Sales reach $*. Thereafter, all royalty payments due under Section 4.8 shall be paid in quarterly installments, within sixty (60) days following the end of each calendar quarter.

4.12 **No Deductions from Payments**. Licensee is solely responsible for payment of any fee, royalty or other payment due to any Third Party not a Sublicensee in connection with the research, development, manufacture, distribution, use, sale, import or export of a Licensed Product or Licensed Service and, except as set forth in Section 4.9.1, above, Licensee shall not have the right to set off any amounts paid to such a Third Party, including fee, royalty or other payment, against any amount payable to COH hereunder.

4.13 **Single Royalty**. Only a single royalty payment shall be due and payable on Net Sales of a Licensed Product or performance of a Licensed Service, regardless if such Licensed Product or Licensed Service is Covered by more than one Valid Claim under the CD123 Patent Rights.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 5: REPORTS, AUDITS AND FINANCIAL TERMS

5.1 **Royalty Reports**. Within sixty (60) days after the end of each calendar quarter in which a royalty payment under Article 4 is required to be made, Licensee shall send to COH a report of Net Sales of the Licensed Products and Licensed Services for which a royalty is due, which report sets forth for such calendar quarter the following information, on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service and country-by-country basis: (i) total Net Sales, (ii) total gross sales of Licensed Products and Licensed Services, (iii) the quantity of each Licensed Products sold and Licensed Services performed, (iv) the exchange rate used to convert Net Sales from the currency in which they are earned to United States dollars; and (v) the total royalty payments due. All royalty reports shall also include the COH reference number, OTL 16-543. A copy of each royalty report shall be provided, in addition to the persons set forth in Section 14.7, to: The Office of Technology Licensing, email: otl-royalties@coh.org.

5.2 **Additional Financial Terms**.

5.2.1 **Currency**. All payments to be made under this Agreement shall be made in United States dollars, unless expressly specified to the contrary herein. Net Sales outside of the United States shall be first determined in the currency in which they are earned and shall then be converted into an amount in United States dollars. All currency conversions shall use the conversion rate reported by Reuters, Ltd. on the last Business Day of the calendar quarter for which such payment is being determined.

5.2.2 **Payment Method**. Amounts due under this Agreement shall be paid in immediately available funds, by means of wire transfer to an account identified by COH.

5.2.3 **Withholding of Taxes**. Licensee may withhold from payments due to COH amounts for payment of any withholding tax that is required by law to be paid to any taxing authority with respect to such payments. Licensee shall provide to COH all relevant documents and correspondence, and shall also provide to COH any other cooperation or assistance on a reasonable basis as may be necessary to enable COH to claim exemption from such withholding taxes and to receive a full refund of such withholding tax or claim a foreign tax credit. Licensee shall give COH proper evidence from time to time as to the payment of such tax. The Parties shall cooperate with each other in seeking deductions under federal and state tax laws and any double taxation or other similar treaty or agreement from time to time in force.

5.2.4 **Late Payments**. Any amounts not paid on or before the date due under this Agreement are subject to interest from the date due through and including the date upon which payment is received. Interest is calculated, over the period between the date due and the date paid, at a rate equal to * percentage point (*%) over the "bank prime loan" rate, as such rate is published in the U.S. Federal Reserve Bulletin H.15 or successor thereto on the last Business Day of the applicable calendar quarter prior to the date on which such payment is due.

*Confidential material redacted and filed separately with the Commission.

5.2.5 **Blocked Currency**. If, at any time, legal restrictions prevent the prompt remittance of part or all royalties with respect to any country where a Licensed Product is sold or Licensed Service provided, payment shall be made through such lawful means or methods as Licensee may determine. When in any country, the law or regulations prohibit both the transmittal and deposit of royalties or other payments, Licensee shall continue to report all such amounts, but may suspend payment for as long as such prohibition is in effect. As soon as such prohibition ceases to be in effect, all amounts that would have been obligated to be transmitted or deposited but for the prohibition, together with accrued interested thereon, shall promptly be transmitted to COH.

5.3 **Accounts and Audit**.

5.3.1 **Records**. Licensee shall keep, and shall require that each Sublicensee keep, full, true and accurate books of account containing the particulars of its Net Sales and the calculation of royalties. Licensee and its Sublicensees shall each keep such books of account and the supporting data and other records at its principal place of business. Such books and records must be maintained available for examination in accordance with this Section 5.3.1 for five calendar years after the end of the calendar year to which they pertain, and otherwise as reasonably required to comply with GAAP.

5.3.2 **Appointment of Auditor**. COH may appoint an internationally- recognized independent accounting firm reasonably acceptable to Licensee to inspect the relevant books of account of Licensee and its Sublicensees to verify any reports or statements provided, or amounts paid or invoiced (as appropriate), by Licensee or its Sublicensees.

5.3.3 **Procedures for Audit**. COH may exercise its right to have Licensee's and its Sublicensees' relevant records examined only during the five year period during which Licensee is required to maintain records, no more than once in any consecutive four calendar quarters. Licensee and its Sublicensees are required to make records available for inspection only during regular business hours, only at such place or places where such records are customarily kept, and only upon receipt of at least 15 days advance notice from COH.

5.3.4 **Audit Report**. The independent accountant will be instructed to provide to COH an audit report containing only its conclusions and methodology regarding the audit, and specifying whether the amounts paid were correct and, if incorrect, the amount of any underpayment or overpayment.

5.3.5 **Underpayment and Overpayment**. After review of the auditor's report: (i) if there is an uncontested underpayment by Licensee for all of the periods covered by such auditor's report, then Licensee shall pay to COH the full amount of that uncontested underpayment, and (ii) if there is an uncontested overpayment for such periods, then COH shall provide to Licensee a credit against future payments (such credit equal to the full amount of that overpayment), or, if Licensee is not obligated to make any future payments, then COH shall pay to Licensee the full amount of that overpayment. Contested amounts are subject to dispute resolution under Article 12. If the total amount of any such underpayment (as agreed to by Licensee or as determined under Article 12) exceeds * percent of the amount previously paid by Licensee for the period subject to audit, then Licensee shall pay the reasonable costs for the audit. Otherwise, all costs of the audit shall be paid by COH.

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ARTICLE 6: LICENSEE COVENANTS

6.1 Licensee covenants and agrees that:

(a) During the period commencing on the Original Effective Date and ending on the third (3rd) anniversary of the Original Effective Date, both Dr. Lindsay A. Rosenwald and Michael S. Weiss will hold senior management positions of Licensee; provided, that, in the event of a Change of Control of Licensee, subsequent to such Change of Control, in the event that either Dr. Lindsay A. Rosenwald or Michael S. Weiss no longer holds a senior management position of Licensee both individuals must remain materially involved with the oversight and management of the development of Licensed Products during such period; provided further that in the event of the death of either of Dr. Rosenwald or Mr. Weiss, Licensee will be excused from observing this Section 6.1(a) with regard to the decedent;

(b) the Charter provides, and any amendment thereto will provide the holders of Class A Shares with the right to nominate one individual to the board of directors of Licensee for a period of ten years after the formation of Licensee;

(c) in conducting activities contemplated under this Agreement, it shall comply in all material respects with all applicable laws and regulations including, without limitation, those related to the manufacture, use, labeling importation and marketing of Licensed Products and Licensed Services;

(d) Licensee had obtained and after the date hereof will obtain all authorizations necessary for the issuance of the COH Shares and the Common Stock issuable to COH upon conversion of the COH Shares issuable pursuant to this Agreement and/or the Charter prior to the issuance of such COH Shares and in any event prior to the issuance of any Qualifying Stock or the consummation of a Change of Control and covenants that all such shares issued on or prior to the date hereof are, and those issued after the date hereof will be, validly issued, fully paid and non-assignable and free of restrictions on transfer, other than restrictions on transfer under state and federal securities laws; and

(e) without limiting the foregoing and notwithstanding any other provision in this Agreement, Licensee acknowledges and agrees that it is an exclusive Licensee under this Agreement and agrees (i) to be subject to all laws and other obligations applicable to the DRCRF Grant, including diligence, reporting, access and pricing requirements, and (ii) to assist COH as necessary to ensure COH remains in compliance with any laws and other obligations applicable to the DRCRF Grant.

ARTICLE 7: INTELLECTUAL PROPERTY; PATENT PROSECUTION, MAINTENANCE AND ENFORCEMENT.

7.1 **Patent Prosecution, Maintenance and Enforcement**.

(a) COH shall be responsible for the preparation, filing, prosecution, and maintenance of all CD123 Patent Rights, using counsel of its choice. COH will timely provide Licensee with copies of all relevant documentation relating to such prosecution and Licensee shall keep such information confidential. In addition, COH shall instruct the patent counsel prosecuting CD123 Patent Rights to (i) copy Licensee on patent prosecution documents that are received from or filed with the United States Patent and Trademark Office and foreign equivalent, as applicable; (ii) if requested by Licensee, provide Licensee with copies of draft submissions to the USPTO prior to filing; and (iii) give reasonable consideration to the comments and requests of Licensee or its patent counsel, provided that (a) COH reserves the sole right to make all final decisions with respect to the preparation, filing, prosecution and maintenance of such patent applications and patents; and (b) the patent counsel remains counsel to COH (and shall not jointly represent Licensee unless requested by Licensee and approved by COH, and an appropriate engagement letter and conflict waiver are in effect). All patents and patent applications in CD123 Patent Rights, to the extent assignable in whole or in part to COH, shall be assigned to COH.

(b) COH will not unreasonably refuse to amend any patent application in CD123 Patent Rights to include claims reasonably requested by Licensee to protect the products contemplated to be sold by Licensee under this Agreement. If Licensee informs COH of other countries or jurisdictions in which it wishes to obtain patent protection with respect to the CD123 Patent Rights, COH shall prepare, file, prosecute and maintain patent applications in such counties and any patents resulting therefrom (and, for the avoidance of doubt, such patent applications and patents shall be deemed included in the CD123 Patent Rights). On a country by country and patent by patent basis, Licensee may elect to surrender any patent or patent application in CD123 Patent Rights in any country upon sixty (60) days advance written notice to COH. Such notice shall relieve Licensee from the obligation to pay for future patent costs but shall not relieve Licensee from responsibility to pay patent costs incurred prior to the expiration of the sixty (60) day notice period. Such U.S. or foreign patent application or patent shall thereupon cease to be a CD123 Patent Right hereunder, Licensee shall have no further rights therein and COH shall be free to license its rights to that particular U.S. or foreign patent application or patent to any other party on any terms.

(c) Each Party shall promptly provide written notice to the other in the event it becomes aware of any actual or probable infringement of any of the CD123 Patent Rights in or relevant to the Field or of any Third Party claim regarding the enforceability or validity of any CD123 Patent Rights ("**Infringement Notice**"). Licensee shall, in cooperation with COH, use reasonable efforts to terminate infringement without litigation.

(d) If infringing activity has not been abated within ninety (90) days following the date the Infringement Notice takes effect, then Licensee may, following consultation with COH, in its sole discretion and at its sole expense, take action against any alleged infringer or in defense of such any claim, provided, that Licensee has exclusive rights under this Agreement. Any recovery obtained by Licensee as the result of legal proceedings initiated and paid for by Licensee pursuant to this subsection (d), after deduction of Licensee's reasonable out-of-pocket expenses incurred in securing such recovery, shall be deemed to be Net Sales of Licensed Products and/or Licensed Services in the calendar quarter in which such recovery was received and royalties shall be due and payable thereon accordingly.

(e) If COH is involuntarily joined in a suit initiated by Licensee, then the Licensee will pay any costs incurred by COH arising out of such suit, including but not limited to, reasonable legal fees of counsel that COH selects and retains to represent it in the suit.

(f) In the event that Licensee declines either to cause such infringement to cease (e.g., by settlement or injunction) or to initiate and thereafter diligently maintain legal proceedings against the infringer other than as part of a mutually agreed upon bona fide strategy, developed with the guidance of outside patent counsel, to preserve the CD123 Patent Rights, COH may, in its sole discretion and at its sole expense, take action against such alleged infringer or in defense of any such Third Party claim. Any recovery obtained by COH as the result of any such legal proceedings shall be for the benefit of COH only.

7.2 **Trademarks**. Licensee shall be responsible for the selection, registration, maintenance, and defense of all trademarks for use in connection with the sale or marketing of Licensed Products and Licensed Services in the Field in the Territory (the "**Marks**"), as well as all expenses associated therewith. All uses of the Marks by Licensee or a Sublicensee shall comply in all material respects with all applicable laws and regulations (including those laws and regulations particularly applying to the proper use and designation of trademarks in the applicable countries). Licensee shall not, without COH's prior written consent, use any trademarks or house marks of COH (including the COH corporate name), or marks confusingly similar thereto, in connection with Licensee commercialization of Licensed Products or Licensed Services under this Agreement in any promotional materials or applications or in any manner implying an endorsement by COH of Licensee or the Licensed Products or Licensed Services. Licensee shall own all Marks.

7.3 **Challenge to the CD123 Patent Rights by Licensee**.

(a) COH may terminate this Agreement and, notwithstanding Section 3.3, above, all Sublicenses issued hereunder, upon written notice to Licensee in the event that Licensee or any of its Affiliates or Sublicensees directly or indirectly asserts a Patent Challenge. "**Patent Challenge**" means any challenge in a legal or administrative proceeding to the patentability, validity or enforceability of any of the CD123 Patent Rights (or any claim thereof), including by: (a) filing or pursuing a declaratory judgment action in which any of the CD123 Patent Rights is alleged to be invalid or unenforceable; (b) citing prior art against any of the CD123 Patent Rights, filing a request for or pursuing a re-examination of any of the CD123 Patent Rights (other than with COH's written agreement), or becoming a party to or pursuing an interference; or (c) filing or pursuing any re-examination, opposition, cancellation, nullity or other like proceedings against any of the CD123 Patent Rights; but excluding any challenge raised as a defense against a claim, action or proceeding asserted by COH against Licensee, its Affiliates or Sublicensees. In lieu of exercising its rights to terminate under this Section 7.3(a) COH may elect upon written notice to increase the payments due under all of Section 4 by * percent (*%), which election will be effective retroactively to the date of the commencement of the Patent Challenge. Licensee acknowledges and agrees that this Section 7.3(a) is reasonable, valid and necessary for the adequate protection of COH's interest in and to the CD123 Patent Rights, and that would not have granted to Licensee the licenses under those CD123 Patent Rights, without this Section 7.3(a).

*Confidential material redacted and filed separately with the Commission.

(b) **Payment of COH Patent Expenses**. The Parties acknowledge that, prior to the Original Effective Date, COH provided to Licensee documentation of historic expenses incurred by COH with respect to the drafting, prosecution and maintenance of the CD123 Patent Rights. In consideration of such historic expenditures by COH, the Parties acknowledge and agree that Licensee has reimbursed COH for such expenses within thirty (30) days of the Original Effective Date.

(c) After the Original Effective Date, COH shall provide to Licensee an annual invoice and reasonably detailed documentation with respect to COH's out-of-pocket expenses incurred with respect to such prosecution and maintenance for the previous year. Licensee shall reimburse COH for * percent of such expenses within thirty (30) days after receipt of such invoice and documentation.

7.4 **Marking**. Licensee and its Sublicensees shall mark all Licensed Products and all materials related to Licensed Services in such a matter as to conform with the patent laws of the country to which such Licensed Products are shipped or in which such products are sold and such Licensed Services performed.

ARTICLE 8: TERM AND TERMINATION

8.1 **Term and Expiration of Term**. The term of this Agreement (the "**Term**") shall commence on the A&R Effective Date and, notwithstanding any other provision of this Agreement, unless sooner terminated by mutual agreement or pursuant to any other provision of this Agreement, this Agreement shall expire on a country-by-country basis and on a CD123 Patent Right-by- CD123 Patent Right basis on the later to occur of: (a) the expiration of the last to expire of any of the CD123 Patent Rights in such country (or if no patent issues, until the last patent application in CD123 Patent Rights is abandoned), and (b) the date on which the last of the remaining obligations under this Agreement between the Parties with respect to the payment of milestones or royalties with respect to Licensed Products and Licensed Services have been satisfied (such expiry of the Term hereinafter referred to as "**Expiration**").

8.2 **Termination**.

8.2.1 **Material Breach**. Either Party may terminate this Agreement prior to its Expiration for any material breach by the other Party, provided, that, the Party seeking to terminate shall have first given the breaching Party notice of such material breach with reasonable particulars of the material breach, and the Party receiving the notice of the material breach shall have failed to cure that material breach within thirty (30) days after the date of receipt of such notice.

8.2.2 **Bankruptcy**. COH shall have the right to terminate this Agreement prior to its Expiration upon notice to Licensee, in the event that: (i) Licensee seeks protection of any bankruptcy or insolvency law other than with the prior consent of City of Hope, or (ii) a proceeding in bankruptcy or insolvency is filed by or against Licensee and not withdrawn, removed or vacated within 120 days of such filing, or there is adjudication by a court of competent jurisdiction that Licensee is bankrupt or insolvent.

*Confidential material redacted and filed separately with the Commission.

8.2.3 **Termination at Will by Licensee**. Licensee shall have the right to terminate this Agreement prior to its Expiration upon notice to COH without cause, effective no fewer than 90 days following the date of such notice.

8.2.4 **Breach-Based Termination of CTA**. Licensee and COH hereby acknowledge and agree that in the event that COH terminates the CTA pursuant to Section 11(a) or Section 4(b) of the CTA, Licensee's rights to the CTA Inventions and the Study Data under this Agreement shall automatically terminate as of the effective date of termination of the CTA; provided, that in the event of any such termination of the CTA by COH, Licensee shall provide written notice to COH within thirty (30) days of such termination.

8.3 **Effect of Termination**.

8.3.1 Upon any termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), all rights and licenses granted to Licensee under Article 4, if any, shall immediately terminate on and as of the effective date of termination as provided in Section 8.2, except that Licensee shall have the right to continue to sell Licensed Products manufactured prior to the effective date of such termination until the sooner of: (i) ninety (90) days after the effective date of termination, or (ii) the exhaustion of Licensee's inventory of Licensed Products.

8.3.2 Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration):

(a) Each Party shall promptly return to the other Party all relevant records and materials in its possession or control containing or comprising the other Party's Confidential Information and to which the Party does not retain rights hereunder.

(b) Licensee shall discontinue making any representation regarding its status as a licensee of COH for Licensed Products and Licensed Services. Subject to Section 8.3.1, above, Licensee shall cease conducting any activities with respect to the marketing, promotion, sale or distribution of Licensed Products and Licensed Services.

8.3.3 Termination of this Agreement through any means and for any reason pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), shall not relieve the Parties of any obligation accruing prior thereto, including the payment of all sums due and payable, and shall be without prejudice to the rights and remedies of either Party with respect to any antecedent breach of any of the provisions of this Agreement.

8.4 **Effect of Expiration**. In the event of Expiration of this Agreement for a particular Licensed Product (or Licensed Service) in a particular country pursuant to Section 8.1, the rights and licenses granted to Licensee under this Agreement with respect to the Study Data in such country shall become nonexclusive, perpetual, irrevocable, and royalty-free.

8 . 5 **Survival**. Sections 4.11, 5.1, 5.2, 5.3, 7.4, 8.3, 8.4, 8.5, Article 10, Article 11, Article 12, Sections 14.2, 14.4, 14.7, and 14.10 shall survive termination of this Agreement for any reason pursuant to Section 8.2 and Expiration pursuant to Section 8.1.

ARTICLE 9: REPRESENTATIONS AND WARRANTIES

9.1 **Mutual Representations and Warranties**. COH and Licensee each represents and warrants as follows:

9.1.1 It has the right and authority to enter into this Agreement and all action required to be taken on its behalf, its officers, directors, partners and stockholders necessary for the authorization, execution, and delivery of this Agreement and, the performance of all of its obligations hereunder, and this Agreement, when executed and delivered, will constitute valid and legally binding obligations of such Party, enforceable in accordance with its terms, subject to: (i) laws limiting the availability of specific performance, injunctive relief, and other equitable remedies; and (ii) bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights generally;

9.1.2 Entry into this Agreement will not constitute a breach of any other agreement to which it is party;

9.1.3 It has read this Agreement, with assistance from its counsel of choice. It understands all of this Agreement's terms. It has been given a reasonable amount of time to consider the contents of this Agreement before each Party executed it. It agrees that it is executing this Agreement voluntarily with full knowledge of this Agreement's legal significance; and

9.1.4 It has made such investigation of all matters pertaining to this Agreement that it deems necessary, and does not rely on any statement, promise, or representation, whether oral or written, with respect to such matters other than those expressly set forth herein. It agrees that it is not relying in any manner on any statement, promise, representation or understanding, whether oral, written or implied, made by any Party, not specifically set forth in this Agreement. It acknowledges that, after execution of this Agreement, it may discover facts different from or in addition to those which it now knows or believes to be true. Nevertheless, it agrees that this Agreement shall be and remain in full force and effect in all respects, notwithstanding such different or additional facts.

9.2 **Representations and Warranties of COH**. COH represents and warrants that, as of the Original Effective Date, to the actual knowledge of the Investigator (as defined in the Research Agreement) and the Director of its Office of Technology Transfer without independent inquiry, COH has the full power and authority to grant the rights, licenses and privileges granted herein.

9 . 3 **Representations and Warranties of Licensee**. Licensee represents and warrants as of the Original Effective Date (except as specifically provided below) and as of the A&R Effective Date (except as specifically provided below):

9.3.1 all authorizations necessary for the issuance of the COH Shares and the Common Stock issuable to COH upon conversion of the COH Shares have been obtained;

9.3.2 no consent, approval, order, or authorization of, or registration, qualification, designation, declaration, or filing with, any federal, state, or local governmental authority on the part of Licensee was required in connection with the offer, sale, or issuance of the COH Shares (and the Common Stock issuable upon conversion of the COH Shares) or the consummation of any other transaction contemplated hereby, except for the following: (i) the filing of a notice of exemption pursuant to Section 25102(f) of the California Corporate Securities Law of 1968, as amended, which was filed by Licensee promptly following the Original Effective Date and promptly following any Measurement Date; and (ii) the compliance with other applicable state securities laws, which compliance has occurred or will occur within the appropriate time periods therefor. The offer, sale, and issuance of the COH Shares are exempt from the registration requirements of Section 5 of the Act, and from the qualification requirements of Section 25110 of the California Securities Law, and neithor Licensee, nor any authorized agent acting on its behalf has taken or will take any action hereafter that results in the loss of such exemptions;

9.3.3 The sale of the COH Shares was not, and the subsequent conversion of the COH Shares into Common Stock will not be, subject to any preemptive rights or rights of first refusal that have not been properly waived or complied with;

9.3.4 The COH Shares, when issued, sold and delivered in accordance with the terms of the Original Agreement or this Agreement for the consideration expressed therein, were and will be duly and validly issued, fully paid and nonassessable and free of restrictions on transfer, other than restrictions on transfer under applicable state and federal securities laws. The Common Stock issuable upon conversion of the COH Shares has been duly and validly reserved for issuance and, upon issuance in accordance with the terms of the Charter, will be duly and validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under applicable state and federal securities laws.

9.3.5 As of the A&R Effective Date, the authorized capital stock of Licensee consists of (i) 50,000,000 shares of Common Stock (24,209,025[1] of which shall be issued and outstanding after giving effect to the issuances contemplated hereunder); of which 1,000,000 shares were designated as Class A Common Stock (1,000,000 of which are issued and outstanding (taking into account the issuance of the COH Shares of Class A Common Stock pursuant to the Original Agreement)), and (ii) 2,000,000 shares of preferred stock, 250,000 of which are designated as Series A Preferred Stock (250,000 of which are issued and outstanding). As of the A&R Effective Date there are outstanding warrants exercisable for 4,239,396 shares of Common Stock at an exercise price of $8.50 per share and 138,462 shares of Common Stock at an exercise price of $0.0001. As of the A&R Effective Date, Licensee has also reserved but has not issued an aggregate of 2,000,000 shares of Common Stock for issuance to employees, directors and consultants pursuant to Licensee's equity incentive compensation plans. As of the A&R Effective Date, all issued and outstanding shares were duly authorized and validly issued and were fully paid and nonassessable. Other than as provided in this Section 9.3.5 or pursuant to litigation as described in the Company's filings with the Securities and Exchange Commission prior to the date hereof, there are no other outstanding rights, options, warrants, preemptive rights, rights of first refusal, or similar rights for the purchase or acquisition from Licensee of any securities of Licensee nor any commitments to issue or execute any such rights, options, warrants, preemptive rights or rights of first refusal. The respective rights, preferences, privileges, and restrictions of the Common Stock, including the Class A Common Stock and the preferred stock are solely as stated in the Charter. As of the Original Effective Date, the COH Shares represented a 10% interest in the capital stock of Licensee; and

[1] To be confirmed by Mustang

9.3.6 Licensee is not in violation or default of any provision of the Charter or its bylaws.

9.4 **Exclusions**. Nothing in this Agreement is or shall be construed as:

9.4.1 A warranty or representation by COH as to the validity or scope of any claim or patent or patent application within the CD123 Patent Rights;

9.4.2 A warranty or representation by COH that anything made, used, sold, or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of any patent rights or other intellectual property right of any Third Party;

9.4.3 A grant by COH, whether by implication, estoppel, or otherwise, of any licenses or rights under any patents other than CD123 Patent Rights as defined herein, regardless of whether such patents are dominant or subordinate to CD123 Patent Rights;

9.4.4 An obligation on COH to bring or prosecute any suit or action against a third party for infringement of any of the CD123 Patent Rights;

9.4.5 An obligation to furnish any know-how not provided in CD123 Patent Rights or the Study Data; or

9.4.6 A representation or warranty of the ownership of the CD123 Patent Rights or the Study Data other than as set forth in Section 9.2, above.

9.5 **DISCLAIMER**. **NO WARRANTY IS GIVEN WITH RESPECT TO THE CD123 PATENT RIGHTS OR THE STUDY DATA, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND THE PARTIES SPECIFICALLY DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF THE CD123 PATENT RIGHTS OR NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY OR OTHER RIGHTS OF ANY THIRD PARTY. THE WARRANTIES SET FORTH IN SECTIONS 9.1 AND 9.2, ABOVE, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, VALIDITY, NON-INFRINGEMENT AND ALL SUCH OTHER WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.**

ARTICLE 10: INDEMNIFICATION

10.1 **Indemnification by Licensee**. Licensee shall defend, indemnify and hold harmless COH, its Affiliates, officers, directors, shareholders, employees and agents ("**COH Indemnitees**") from and against any and all Third Party liabilities, claims, suits, and expenses, including reasonable attorneys' fees (collectively, "**Losses**"), arising out of or are in any way attributable to: (i) the material breach of any representation or warranty made by Licensee under this Agreement, (ii) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee, any of its Affiliates or a Sublicensee or any other exercise of rights under this Agreement or pursuant to any sublicense, or (iii) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or Sublicensee; in each case except to the extent that such Losses are caused directly by: (a) COH's material breach of any representation or warranty made by COH under this Agreement, (b) COH's material breach of its obligations under this Agreement, and/or (c) the gross negligence or willful misconduct of a COH Indemnitee.

10.2 **Indemnification by COH**. COH shall defend, indemnify and hold harmless Licensee and its Affiliates and their respective officers, directors, shareholders, employees and agents (collectively, the "**Licensee Indemnitees**") from and against any and all Losses caused directly by: (i) the material breach of any representation or warranty made by COH under this Agreement, or (ii) the gross negligence or willful misconduct of a COH Indemnitee, except to the extent that such Losses arise out of or are in any way attributable to: (a) the material breach of any representation or warranty made by Licensee under this Agreement, (b) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee or a Sublicensee, or (c) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or a Sublicensee.

10.3 **Procedure**. The indemnities set forth in this Article 10 are subject to the condition that the Party seeking the indemnity shall forthwith notify the indemnifying Party on being notified or otherwise made aware of a liability, claim, suit, action or expense and that the indemnifying Party defend and control any proceedings with the other Party being permitted to participate at its own expense (unless there shall be a conflict of interest which would prevent representation by joint counsel, in which event the indemnifying Party shall pay for the other Party's counsel); provided, that, the indemnifying Party may not settle the liability, claim, suit, action or expense, or otherwise admit fault of the other Party or consent to any judgment, without the written consent of the other Party (such consent not to be unreasonably withheld). Notwithstanding the foregoing, no delay in the notification of the existence of any claim of Loss shall cause a failure to comply with this Section 10.3 as long as such delay shall not have materially impaired the rights of the indemnifying Party.

10.4 **Insurance**.

(a) Within thirty (30) days following the Effective Date, Licensee shall procure at its sole expense and provide to COH evidence of comprehensive or commercial general liability insurance (contractual liability included) with limits of at least: (i) each occurrence, $*; (ii) products/completed operations aggregate, $*; (iii) personal and advertising injury, $*; and general aggregate (commercial form only), $*.

(b) The foregoing policies will provide primary coverage to COH and shall name the COH Indemnitees as additional insureds, and shall remain in effect during the term of this Agreement and for * years following the termination or expiration of the term of this Agreement. The COH Indemnitees shall be notified in writing by Licensee not less than thirty (30) days prior to any modification, cancellation or non-renewal of such policy. Licensee's insurance must include a provision that the coverages will be primary and will not participate with nor will be excess over any valid and collective insurance or program of self-insurance carried or maintained by the COH Indemnitees. Such insurance coverage shall be maintained with an insurance company or companies having an A.M. Best's rating (or its equivalent) of A-XII or better.

(c) Licensee expressly understands that the coverage limits in Section 10.4(a) do not in any way limit the Licensee's liability.

10.5 **LIMITATION ON DAMAGES**. **NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY, EXCEPT IN RELATION TO LICENSEE'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 10.1 AND ANY BREACH BY LICENSEE OF ARTICLE 11: (I) IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, PUNITIVE, CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS, LOST BUSINESS OR ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT) WHETHER BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR ANY OTHER LEGAL THEORY, AND (II) IN NO EVENT SHALL COH BE LIABLE TO LICENSEE FOR AN AGGREGATE AMOUNT IN EXCESS OF TWO-THIRDS OF THE TOTAL CONSIDERATION PAID TO COH HEREUNDER.**

ARTICLE 11: CONFIDENTIALITY

11.1 **Confidential Information**. During the term of this Agreement and for * (*) * thereafter without regard to the means of termination: (i) COH shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose to any Third Party Licensee Confidential Information; and (ii) Licensee shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose COH Confidential Information to any Third Party. The Parties shall take reasonable measures to assure that no unauthorized use or disclosure is made by others to whom access to such information is granted.

11.2 **Exceptions**. Notwithstanding the foregoing, a Party may use and disclose Confidential Information of the other Party as follows:

*Confidential material redacted and filed separately with the Commission.

(a) if required by applicable law, rule, regulation, government requirement and/or court order, provided, that, the disclosing Party promptly notifies the other Party of its notice of any such requirement and provides the other Party a reasonable opportunity to seek a protective order or other appropriate remedy and/or to waive compliance with the provisions of this Agreement;

(b) to the extent such use and disclosure occurs in the filing or publication of any patent application or patent on inventions;

(c) as necessary or desirable for securing any regulatory approvals, including pricing approvals, for any Licensed Products or Licensed Services, provided, that, the disclosing Party shall take all reasonable steps to limit disclosure of the Confidential Information outside such regulatory agency and to otherwise maintain the confidentiality of the Confidential Information;

(d) to take any lawful action that it deems necessary to protect its interest under, or to enforce compliance with the terms and conditions of, this Agreement;

(e) to the extent necessary, to its Affiliates, directors, officers, employees, consultants, vendors and clinicians under written agreements of confidentiality at least as restrictive as those set forth in this Agreement, who have a need to know such information in connection with such Party performing its obligations or exercising its rights under this Agreement; and

(f) by Licensee, to actual and potential investors, licensees, Sublicensees, consultants, vendors and suppliers, and academic and commercial collaborators, under written agreements of confidentiality at least as restrictive as those set forth in this Agreement.

11.3 **Certain Obligations**. During the Term and for a period of * (*) * thereafter and subject to the exceptions set forth in Section 11.2, Licensee, with respect to COH Confidential Information, and COH, with respect to Licensee Confidential Information, agree:

(a) to use such Confidential Information only for the purposes contemplated under this Agreement,

(b) to treat such Confidential Information as it would its own proprietary information which in no event shall be less than a reasonable standard of care,

(c) to take reasonable precautions to prevent the disclosure of such Confidential Information to a Third Party without written consent of the other Party, and

(d) to only disclose such Confidential Information to those employees, agents and Third Parties who have a need to know such Confidential Information for the purposes set forth herein and who are subject to obligations of confidentiality no less restrictive than those set forth herein.

*Confidential material redacted and filed separately with the Commission.

11.4 **Termination**. Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), and upon the request of the disclosing Party, the receiving Party shall promptly return to the disclosing Party or destroy all copies of Confidential Information received from such Party, and shall return or destroy, and document the destruction of, all summaries, abstracts, extracts, or other documents which contain any Confidential Information of the other Party in any form, except that each Party shall be permitted to retain a copy (or copies, as necessary) of such Confidential Information for archival purposes or to enforce or verify compliance with this Agreement, or as required by any applicable law or regulation.

ARTICLE 12: DISPUTE RESOLUTION

All Disputes shall be first referred to a Vice President, Center for Applied Technology Development of COH (the "**COH VP**") and the President of Licensee for resolution, prior to proceeding under the other provisions of this Article 12. A Dispute shall be referred to such executives upon one Party (the " **Initiating Party**") providing the other Party (the "**Responding Party**") with notice that such Dispute exists, together with a written statement describing the Dispute with reasonable specificity and proposing a resolution to such Dispute that the Initiating Party is willing to accept, if any. Within ten days after having received such statement and proposed resolution, if any, the Responding Party shall respond with a written statement that provides additional information, if any, regarding such Dispute, and proposes a resolution to such Dispute that the Responding Party is willing to accept, if any. In the event that such Dispute is not resolved within 60 days after the Responding Party's receipt of the Initiating Party's notice, either Party may bring and thereafter maintain suit against the other with respect to such Dispute; provided, however, that the exclusive jurisdiction of any such suit shall be the state and federal courts located in Los Angeles County, California, and the Parties hereby consent to the exclusive jurisdiction and venue of such courts.

ARTICLE 13: GOVERNMENTAL MATTERS

13.1 **Governmental Approval or Registration**. If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee shall assume all legal obligations to do so. Licensee shall notify COH if it becomes aware that this Agreement is subject to a U.S. or foreign government reporting or approval requirement. Licensee shall make all necessary filings and pay all costs including fees, penalties and all other out-of-pocket costs associated with such reporting or approval process.

13.2 **Export Control Laws**. Licensee shall observe all applicable U.S. and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations and the Export Administration Regulations.

13.3 **Preference for United States Industry**. If Licensee sells a Licensed Product in the U.S., Licensee shall manufacture said product substantially in the U.S.

ARTICLE 14: MISCELLANEOUS

14.1 **Assignment and Delegation**. Except as expressly provided in this Section 14.1, neither this Agreement nor any right or obligation hereunder shall be assignable in whole or in part, whether by operation of law, or otherwise by Licensee without the prior written consent of COH. Notwithstanding the foregoing, Licensee may assign or transfer its rights and obligations under this Agreement to a Person that succeeds to all or substantially all of that Party's business or assets, whether by sale, merger, operation of law or otherwise and provided that such Person agrees, in form and substance reasonably acceptable to COH, to be bound as a direct party to this Agreement in lieu of or in addition to Licensee and provided further that Licensee has complied with its obligations pursuant to Section 4.5. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the Parties hereto and their respective successors and permitted assignees. Any transfer or assignment of this Agreement in violation of this Section 14.1 shall be null and void.

14.2 **Entire Agreement**. This Agreement contains the entire agreement between the Parties relating to the subject matter hereof, and all prior understandings, representations and warranties between the Parties are superseded by this Agreement. For clarity, the Original Agreement shall be deemed amended and restated in its entirety by this Agreement, and the corresponding A&R IL-13 License and the corresponding A&R Spacer License to be executed by the Parties simultaneously herewith, effective as of the A&R Effective Date.

14.3 **Amendments**. Changes and additional provisions to this Agreement shall be binding on the Parties only if agreed upon in writing and signed by the Parties.

14.4 **Applicable Law**. This Agreement shall be construed and interpreted in accordance with the laws of the State of California and all rights and remedies shall be governed by such laws without regard to principles of conflicts of law.

14.5 **Force Majeure**. If the performance of this Agreement or any obligations hereunder is prevented, restricted or interfered with by reason of earthquake, fire, flood or other casualty or due to strikes, riot, storms, explosions, acts of God, war, terrorism, or a similar occurrence or condition beyond the reasonable control of the Parties, the Party so affected shall, upon giving prompt notice to the other Parties, be excused from such performance during such prevention, restriction or interference, and any failure or delay resulting therefrom shall not be considered a breach of this Agreement.

14.6 **Severability**. The Parties do not intend to violate any public policy or statutory common law. However, if any sentence, paragraph, clause or combination of this Agreement is in violation of any law or is found to be otherwise unenforceable, such sentence, paragraph, clause or combination of the same shall be deleted and the remainder of this Agreement shall remain binding, provided that such deletion does not alter the basic purpose and structure of this Agreement.

14.7 **Notices**. All notices, requests, demands, and other communications relating to this Agreement shall be in writing in the English language and shall be delivered in person or by mail, international courier or facsimile transmission (with a confirmation copy forwarded by courier or mail). Notices sent by mail shall be sent by first class mail or the equivalent, registered or certified, postage prepaid, and shall be deemed to have been given on the date actually received. Notices sent by international courier shall be sent using a service which provides traceability of packages. Notices shall be sent as follows:

Notices to COH:	with a copy to:
Office of Technology Licensing City of Hope 1500 East Duarte Road Duarte, CA 91010 Attn: Sr. VP, Center for Applied Technology Development Fax: 626-301-8175	Office of General Counsel City of Hope 1500 East Duarte Road Duarte, CA 91010 Attn: General Counsel Fax: 626-301-8863
Notices to Licensee:	with a copy to:
Mustang Bio, Inc. 2 Gansevoort, 9th Floor New York, NY 10014 Attn: CEO	Mustang Bio, Inc. 2 Gansevoort, 9th Floor New York, NY 10014 Attn: Corporate Secretary

Either Party may change its address for notices or facsimile number at any time by sending notice to the other Party.

14.8 **Independent Contractor**. Nothing herein shall create any association, partnership, joint venture, fiduciary duty or the relation of principal and agent between the Parties hereto, it being understood that each Party is acting as an independent contractor, and neither Party shall have the authority to bind the other or the other's representatives in any way.

14.9 **Waiver**. No delay on the part of either Party hereto in exercising any power or right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any power or right hereunder preclude other or further exercise thereof or the exercise of any other power or right. No waiver of this Agreement or any provision hereof shall be enforceable against any Party hereto unless in writing, signed by the Party against whom such waiver is claimed, and shall be limited solely to the one event.

14.10 **Interpretation**. This Agreement has been prepared jointly and no rule of strict construction shall be applied against either Party. In this Agreement, the singular shall include the plural and vice versa and the word "including" shall be deemed to be followed by the phrase "without limitation." The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

14.11 **Counterparts**. This Agreement may be executed in counterparts, each of which together shall constitute one and the same Agreement. For purposes of executing this agreement, a facsimile copy or an emailed PDF of this Agreement, including the signature pages, will be deemed an original.

14.12 **Licensee Certification**. Licensee certifies to COH, under penalty of perjury, that Licensee has not been convicted of a criminal offense related to health care, is not currently debarred, excluded or otherwise ineligible for participation in federally funded health care programs and has not arranged or contracted (by employment or otherwise) with any employee, contractor, or agent that it knew or should have known are excluded from participation in any federal health care program, and will not knowingly arrange or contract with any such individuals or entities during the term of this Agreement. Licensee agrees to notify COH in writing immediately of any threatened, proposed or actual conviction relating to health care, of any threatened, proposed or actual debarment or exclusion from participation in federally funded programs, of COH or any employee, contractor or agent of COH. Any breach of this Section 14.12 by Licensee shall be grounds for termination of this Agreement by COH in accordance with Section 8.2.1.

14.13 **Publicity**. Neither Party may issue a press releases or otherwise disclose the existence or terms of this Agreement without the prior written consent of the other Party; provided, however, that once the existence or any terms or conditions of this Agreement has been publicly disclosed in a manner mutually and reasonably agreed-to by the Parties, either Party may republish the facts previously disclosed without the prior consent of the other Party. COH may, in its sole discretion and without the approval of Licensee, publicly disclose the existence of this Agreement and the overall potential value of the Agreement to COH, so long as the detailed and specific terms and conditions of this Agreement are not disclosed. If a third party inquires whether a license is available, COH may disclose the existence of the Agreement and the extent of its grant in Section 3.1 to such third party, but will not disclose the name of the Licensee, except where COH is required to release information under either the California Public Records Act or other applicable law. Notwithstanding the foregoing, Licensee acknowledges that, under the DRCRF Grant, COH is obligated to provide DRCRF with detailed reports relating to the CD123 CTA, but it is DRCRF's policy to keep such detailed reports confidential and DRCRF will only publish brief summaries intended for lay audience publicly

* * * * *

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives.

MUSTANG BIO, INC.		CITY OF HOPE	
By:	/s/ Michael S. Weiss	By:	/s/ Robert Stone
Name	Michael S. Weiss	Name:	Robert Stone
Title:	President & CEO	Title:	President & CEO

EXHIBIT A

Form of Charter

EXHIBIT B

CTA

AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT – IL-13

THIS AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT – IL-13 (the "**Agreement**") is made and entered into as of the 17th day of February, 2017 (the "**A&R Effective Date**") by and between Mustang Bio, Inc. (f/k/a Mustang Therapeutics, Inc.), a Delaware corporation with a principal place of business at 2 Gansevoort, 9th Floor, New York, NY 10014 ("**Licensee**") and City of Hope, a California nonprofit public benefit corporation located at 1500 East Duarte Road, Duarte, California 91010 ("**City of Hope**" or "**COH**"). Licensee and COH are each sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**."

WHEREAS:

A. COH operates an academic research and medical center that encourages the use of its inventions, discoveries and intellectual property for the benefit of the public, and COH owns or Controls (as defined below) certain IL-13 Patent Rights (as defined below) useful in the Field (as defined below);

B. The inventions covered by the IL-13 Patent Rights were invented by Dr. Stephen Forman who, as of the A&R Effective Date, is affiliated with COH;

C. The research was sponsored in part by the National Institute of Health, and as a consequence this license is subject to obligations to the United States Federal Government under 35 U.S.C. §§ 200-212 and applicable U.S. government regulations;

D . The research was sponsored in part by a grant from the California Institute for Regenerative Medicine (the "**CIRM Grant**"), and as a consequence this Agreement is subject to applicable law and other obligations as applicable to exclusive licensees under the CIRM Grant;

E. Licensee is a company dedicated to the commercial development and exploitation in the Field (as defined below) of products and services that incorporate one or more of the technologies described in the IL-13 Patent Rights and therefore Licensee desires to obtain from COH a worldwide, exclusive license under the IL-13 Patent Rights, on the terms and subject to the conditions set forth herein;

F. The Certificate of Incorporation of Licensee as of the A&R Effective Date is in the form attached hereto as Exhibit A (the "**Charter**") and provides, among other things, for the rights and preferences of a class of stock, referred to therein as Class A Common Stock, that was issued to COH or its designee(s) in accordance with the terms of the Original Agreement;

G . COH and Licensee have entered into (i) that certain Exclusive License Agreement, dated March 17, 2015 (the "**Original Effective Date**") (said agreement hereafter referred to as the "**Original Agreement**"), whereby COH granted to Licensee certain exclusive rights in certain patent rights related to IL-13, CD123, and spacer technologies, and (ii) that certain Sponsored Research Agreement between the Parties dated March 2015 (the "**Research Agreement**"); and

H. COH and Licensee now desire to amend and restate the Original Agreement, which related to certain chimeric antigen receptor ("**CAR**") technologies in connection with IL-13, CD123, and spacer technologies by entering into three separate amended and restated exclusive license agreements, one relating to CD123 (the "**A&R CD123 License**"), one relating to the spacer (the "**A&R Spacer License**"), and one relating to IL-13 (this Agreement), that will also include certain rights to certain CTA Inventions (defined below) and Study Data (defined below), amend the Original Agreement in certain other respects, and collectively replace the Original Agreement in its entirety.

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

ARTICLE 1: DEFINITIONS

1.1 "**Act**" means the Securities Act of 1933, as amended.

1.2 "**Affiliate**" of a Party means a Person that, directly or indirectly (through one or more intermediaries) controls, is controlled by, or is under common control with such Party. For purposes of this Section 1.2, "control" means (i) the direct or indirect ownership of 50 percent or more of the voting stock or other voting interests or interests in profits, or (ii) the ability to otherwise control or direct the decisions of board of directors or equivalent governing body thereof.

1.3 "**Business Day**" means any day, other than a Saturday, Sunday or day on which commercial banks located in Los Angeles, California, are authorized or required by law or regulation to close.

1.4 "**Change of Control**" means (i) any transaction or series of related transactions following which the holders of Licensee's capital stock immediately prior to such transaction or series of related transactions collectively are the owners of less than 50% of the outstanding equity interests of Licensee entitled to (a) vote with respect to the election of directors (or positions having a similar function) or (b) receive the proceeds upon any sale, liquidation or dissolution of Licensee, (ii) a sale, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, of all or a material portion of Licensee's interest in the Licensed Product or Licensed Service or (iii) a sale, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, of all or a material portion of Licensee's right title, or interest in its assets taken as a whole.

1.5 "**Class A Common Stock**" means Class A Common Stock, par value $0.0001 per share, of Licensee, with such rights preferences and privileges as are set forth in the Charter.

1.6 "**COH CAR**" means a CAR that is licensed to Licensee by COH pursuant to an applicable license agreement between the Parties, including but not limited to, pursuant to this Agreement and the A&R CD123 License.

1.7 "**COH Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, COH to Licensee or its designees.

1.8 "**COH Shares**" means the shares of Class A Common Stock issued and to be issued to COH Stockholders in accordance with Section 4.3 of the Original Agreement and this Agreement and/or the terms of the Charter.

1.9 "**COH Spacer Technology**" means any spacer, hinge, or linker sequence(s) that is used to connect the extracellular ligand-binding domain to transmembrane and intracellular-signaling domains of an applicable CAR and that is covered by a Valid Claim under the Spacer Patent Rights.

1.10 "**Commercially Reasonable Efforts**" means the exercise of such efforts and commitment of such resources by Licensee, directly or through one or more Sublicensees, in a diligent manner consistent with organizations in the pharmaceutical industry for a comparable development or commercialization program at a similar stage of development or commercialization. In the event that Licensee or a Sublicensee with respect to a given Licensed Product or Licensed Service, has a program or product that competes with the programs contemplated by this Agreement with respect to such Licensed Product or Licensed Service, then "Commercially Reasonable Efforts" shall also mean efforts at least comparable to those efforts and resources expended by Licensee or its Sublicensee on the competing program and/or product or service.

1.11 "**Completion**" means, with respect to a particular clinical trial, the earlier of (i) the database lock or freeze related to the completion of treatment or examination of participants in such clinical trial or (ii) the dosing of the first patient in a clinical trial in a subsequent phase (e.g., with respect to a Phase 1 Clinical Trial, the Phase 1 Clinical Trial will be deemed completed in the event a patient is dosed in a Phase 2 Clinical Trial before a database lock in the related Phase 1 Clinical Trial).

1.12 "**Common Stock**" means Common Stock, par value $0.0001 per share, of Licensee.

1.13 "**Confidential Information**" means: (i) all information and materials (of whatever kind and in whatever form or medium) disclosed by or on behalf of a Party to the other Party (or its designee) in connection with this Agreement, whether prior to or during the term of this Agreement and whether provided orally, electronically, visually, or in writing; provided that all such information and materials initially disclosed in writing or electronically shall be clearly marked as "CONFIDENTIAL" and all such materials and information initially disclosed orally shall be reduced to writing and marked as "CONFIDENTIAL" within 10 days following the date of initial oral disclosure; (ii) all copies of the information and materials described in (i) above; and (iii) the existence and each of the terms and conditions of this Agreement; provided further that Confidential Information shall not include information and materials to the extent a Party can demonstrate through its contemporaneous written records that such information and materials are or have been:

(a) known to the receiving Party, or in the public domain, at the time of its receipt by a Party, or which thereafter becomes part of the public domain other than by virtue of a breach of this Agreement or the obligations of confidentiality under this Agreement;

(b) received without an obligation of confidentiality from a Third Party having the right to disclose without restrictions such information;

(c) independently developed by the receiving Party without use of or reference to Confidential Information disclosed by the other Party; or

(d) released from the restrictions set forth in this Agreement by the express prior written consent of the disclosing Party.

1.14 "**Control(s)**" or "**Controlled**" means the possession by a Party, as of the A&R Effective Date, of rights sufficient to effect the grant of rights set forth in this Agreement without violating the terms of any agreement with any Third Party.

1.15 "**Covers**" or "**Covered by**," means with reference to a particular Licensed Product or Licensed Service that the manufacture, use, sale, offering for sale, or importation of such Licensed Product or performance of such Licensed Service would, but for ownership of, or a license granted under this Agreement to, the relevant IL-13 Patent Right, infringe a Valid Claim under the IL-13 Patent Rights in the country in which the activity occurs.

1.16 "**CTA**" means an Investigator-Initiated Clinical Research Support Agreement between Licensee and City of Hope National Medical Center relating to central memory enriched T cells lentivirally transduced to express the * and a * that is materially consistent with the form set forth in Exhibit B.

1.17 "**CTA Inventions**" means any patentable inventions, discoveries, and innovations conceived and reduced to practice by Institution Personnel solely relating to central memory enriched T cells lentivirally transduced to express the * and a * used in connection with the Protocol.

1.18 "**Dispute**" means any controversy, claim or legal proceeding arising out of or relating to this Agreement, or the interpretation, breach, termination, or invalidity thereof.

1.19 "**Field**" means the treatment and diagnosis of all human diseases.

1.20 "**First Commercial Sale**" means, with respect to a particular Licensed Product or Licensed Service in a given country, the first arm's-length commercial sale of such Licensed Product or the first performance of such Licensed Service following Marketing Approval in such country by or under authority of Licensee or any Sublicensee to a Third Party who is not a Sublicensee.

1.21 "**GAAP**" means generally accepted accounting principles, consistently applied, as promulgated from time to time by the Financial Accounting Standards Board.

*Confidential material redacted and filed separately with the Commission.

1.22 "**IL-13 Patent Rights**" means: (i) Patent Cooperation Treaty (PCT) application no. PCT/US*; (ii) US patent application no. *; (iii) patents, patent applications, continuation and divisional applications and foreign equivalents that claim the same invention(s) and priority date as the foregoing; (iv) continuation-in-part applications that repeat a substantial portion of any of the foregoing applications; (v) Letters Patent or the equivalent issued on any of the foregoing applications throughout the world; (vi) amendments, extensions, renewals, reissues, and re-examinations of any of the foregoing; and (vii) subject to Section 8.2.4, the CTA Inventions. Notwithstanding the foregoing, "**IL-13 Patent Rights**" shall only include any continuation-in-part application to the extent that claims in such continuation-in-part application are supported in the specification of the parent application, unless otherwise mutually agreed to in writing by the parties to this Agreement.

1.23 "**Institution Personnel**" has the meaning set forth in Section 1 of the CTA.

1.24 "**License Year**" means each calendar year during the term of this Agreement; except that the first License Year shall commence on the Original Effective Date and end on December 31 of the calendar year in which the Original Effective Date occurs.

1.25 "**Licensed Product**" means a product (including kits, component sets or components thereof, regardless of concentration or formulation) that: (i) is Covered by a Valid Claim under the IL-13 Patent Rights, (ii) is manufactured by a process or used in a method Covered by a Valid Claim under the IL-13 Patent Rights, or (iii) contains, as an active ingredient, any substance the manufacture, use, offer for sale or sale of which is Covered by a Valid Claim under the IL-13 Patent Rights. By way of clarification, "Licensed Product" shall include a product manufactured in a country in which such manufacture is Covered by a Valid Claim under the IL-13 Patent Rights and thereafter exported to and sold in a country in which no Valid Claim under the IL-13 Patent Rights exists.

1.26 "**Licensed Service**" means any service the performance of which would, but for the license granted herein, infringe a Valid Claim under the IL-13 Patent Rights.

1.27 "**Licensee Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, Licensee to COH or its designees.

1.28 "**Marketing Approval**" means all approvals, licenses, registrations or authorizations of any federal, state or local regulatory agency, department, bureau or other governmental entity, necessary for the manufacturing, use, storage, import, transport, marketing and sale of Licensed Products or performance of Licensed Services in a country or regulatory jurisdiction.

1.29 "**Net Proceeds**" means the net proceeds actually received by Licensee from all sales of shares of capital stock after deduction of all transaction expenses, finder's fees, advisory fees, legal fees, sales commissions or similar amounts paid to brokers or dealers and other costs and expenses incurred by Licensee or its subsidiaries in connection therewith. In the event such net proceeds are not paid to Licensee in cash, the value of such net proceeds will be the fair market value of the assets constituting such net proceeds.

1.30 "**Net Sales**" means the total gross amount invoiced by Licensee, its Affiliates and its Sublicensees (regardless of whether and when such invoices are actually paid) on the sale of Licensed Products and Licensed Services to Third Parties (including, without limitation, the provision of any product by Licensee, its Affiliates or any of its Sublicensee that incorporates a Licensed Product or Licensed Service but for clarity excluding documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead)), less the following items, as determined from the books and records of Licensee, its Affiliates or its Sublicensees:

(a) insurance, handling and transportation charges actually invoiced;

(b) amounts repaid, credited or allowed for rejection, return or recall;

(c) sales or other excise taxes or other governmental charges levied on or measured by the invoiced amount (including, without limitation, value added taxes);

(d) brokerage, customs and import duties or charges; and

(e) normal and customary trade and quantity discounts (including chargebacks and allowances) and rebates which relate to the Licensed Products or Licensed Services.

Sales of Licensed Products between or among Licensee, its Affiliates or its Sublicensees shall be excluded from the computation of Net Sales, except in those instances in which the purchaser is also the end-user of the Licensed Product sold. Further, transfers of reasonable quantities of Licensed Product by Licensee, any of its Affiliates or of its Sublicensee to a Third Party that is not a Sublicensee for use in the development of such Licensed Product (and not for resale) and transfers of industry standard quantities of Licensed Product for promotional purposes shall not be deemed a sale of such Licensed Product that gives rise to Net Sales for purposes of this Section 1.30.

1.31 "**Person**" means any person or entity, including any individual, trustee, corporation, partnership, trust, unincorporated organization, limited liability company, business association, firm, joint venture or governmental agency or authority.

1.32 "**Phase 1 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a study as described in 21 C.F.R. §312.21(a) or a comparable clinical study in a country other than the United States.

1.33 "**Phase 2 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a study in humans designed with the principal purpose of determining initial efficacy and dosing of such Licensed Product in patients for the indication(s) being studied as described in 21 C.F.R. §312.21(b); or a similar clinical study in a country other than the United States.

1.34 "**Phase 3 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a lawful study in humans of the efficacy and safety of such Licensed Product or Licensed Service, which is prospectively designed to demonstrate statistically whether such Licensed Product is effective and safe for use in a particular indication in a manner sufficient to file an application to obtain Marketing Approval to market and sell that Licensed Product or Licensed Service in the United States or another country for the indication being investigated by the study, as described in 21 C.F.R. § 312.21(c); or similar clinical study in a country other than the United States.

1.35 "**Protocol**" has the meaning set forth in Section 1 of the CTA.

1.36 "**Qualified Financing**" means the sale of capital stock of Licensee, in one or more transactions, that constitute a bona fide equity financing at such time as the Net Proceeds to Licensee from third party investors that are not Affiliates of Licensee in such equity financing(s) are less than or equal to the Qualified Financing Protection Ceiling; provided that if capital stock of Licensee is sold in a single transaction or series of related transactions for different purchase prices and any of such shares of capital stock are included for purposes of determining the number of shares of Qualifying Stock to be issued to COH pursuant to Section 4.3, each share of capital stock that is sold for the lowest purchase price shall be deemed to be have sold first (regardless of the date on which such shares are actually sold) and the next number of shares of capital stock that are sold for the next highest purchase price shall be deemed to have sold next, et cetera, until the Net Proceeds from all such sales (applying all transaction expenses to the first shares issued (except to the extent that such expenses are calculated on a per share basis, such as sales commission, which shall be applied only to the shares included in such calculation) are equal to the Qualified Financing Protection Ceiling.

1.37 "**Qualified Financing Protection Ceiling**" means $*.

1.38 "**Qualified Public Offering**" means the first public offering of the Common Stock of Licensee to the general public that is effected pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Act, as amended, but, for purposes of clarity shall not include an offering effected pursuant to a registration statement on Form S-8 or any successor form.

1.39 "**Qualifying Stock**" means the sum of: (i) the shares of Class A Common Stock issued and to be issued to COH in accordance with Section 4.3, (ii) the number of shares of Common Stock (excluding (x) the shares referenced in the foregoing subclause (i) and (y) shares issued to employees, directors and consultants in their capacity as such) of Licensee outstanding, and (iii) the maximum number of shares of Common Stock of Licensee issuable (assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability) upon the exercise, conversion or exchange of all evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock of the Licensee, including all rights, options or warrants to subscribe for, purchase or otherwise acquire shares of Common Stock of the Licensee but excluding options and rights granted to employees, directors and consultants in their capacity as such).

*Confidential material redacted and filed separately with the Commission.

1.40 "**Spacer Patent Rights**" means: (i) Patent Cooperation Treaty (PCT) application no. PCT/US*; (ii) US patent application no. *; (iii) patents, patent applications, continuation and divisional applications and foreign equivalents that claim the same invention(s) and priority date as the foregoing; (iv) continuation-in-part applications that repeat a substantial portion of any of the foregoing applications; (v) Letters Patent or the equivalent issued on any of the foregoing applications throughout the world; (vi) amendments, extensions, renewals, reissues, and re-examinations of any of the foregoing; and (vii) any claim in a patent or patent application licensed to Licensee by COH pursuant to an applicable license agreement that claims (a) a COH CAR, and (b) the spacer, hinge, or linker sequence(s) that is used to connect the extracellular ligand-binding domain to transmembrane and intracellular-signaling domains of such COH CAR covered by a Valid Claim of any of the foregoing (i)-(vii). Notwithstanding the foregoing, "**Spacer Patent Rights**" shall only include any continuation-in-part application to the extent that claims in such continuation-in-part application are supported in the specification of the parent application, unless otherwise mutually agreed to in writing by the parties to this Agreement.

1.41 "**Study Data**" means all results, data, analyses, reports, and other documentation relating to central memory enriched T cells lentivirally transduced to express an *; and a * resulting from, or generated in the course of or with respect to, the performance of the Protocol.

1.42 "**Sublicensee**" means any Affiliate of Licensee or Third Party which enters into an agreement with Licensee involving the grant to such Affiliate or Third Party of any rights under the license granted to Licensee pursuant to this Agreement.

1.43 "**Sublicense Revenues**" means all consideration, in whatever form, due from a Sublicensee in return for the grant of a sublicense of Licensee's rights hereunder, excluding consideration in the form of: (i) royalties received by Licensee and calculated wholly as a function of sales of Licensed Products or Licensed Services, (ii) payments or reimbursement for documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead), (iii) payment or reimbursement of reasonable patent expenses actually incurred or paid by Licensee and not otherwise reimbursed, or payment of patent expenses required to by paid by Licensee hereunder, (iv) payments for the purchase of equity in Licensee at the fair market value of such equity, and (v) payments recognized as Net Sales under this Agreement for which a royalty is payable to COH. By way of clarification, the principal amount of any loan or other extension of credit provided to Licensee or an Affiliate of Licensee in connection with the grant of a sublicense by Licensee that is other than an arm's-length credit relationship shall be deemed to constitute "Sublicense Revenues."

1.44 "**Territory**" means the entire world.

1.45 "**Third Party**" means a Person that is neither a Party to this Agreement nor an Affiliate of a Party.

1.46 "**Valid Claim**" means a claim of a pending patent application or an issued and unexpired patent included in, as applicable, the IL-13 Patent Rights or the Spacer Patent Rights, in a particular jurisdiction, which claim has not, in such jurisdiction been finally rejected or been declared invalid or cancelled by the patent office or a court of competent jurisdiction in a decision that is no longer subject to appeal as a matter of right.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 2: DEVELOPMENT AND COMMERCIALIZATION EFFORTS

2.1 **Development and Commercialization Responsibilities**. Licensee shall have the sole right and responsibility for, and control over, all development, manufacturing and commercialization activities (including all regulatory activities) with respect to Licensed Products and Licensed Services in the Field.

2.2 **Licensee Diligence**. Licensee shall use Commercially Reasonable Efforts to develop and commercialize Licensed Products and Licensed Services in the Field, directly or through one or more Sublicensees. Without limiting the foregoing, if Licensee, directly or through one or Sublicensees, fails to accomplish any one of the "**Diligence Milestones**" set forth in this Section 2.2 by the date specified (each a "**Deadline Date**") corresponding to such Diligence Milestone, COH shall have the right, on notice to Licensee, to terminate this Agreement.

"**Deadline Date**"	"**Diligence Milestone**"
1. * (*) * from the Original Effective Date	Licensee to receive not less than $* through any combination of: (i) Net Proceeds from the sale of any equity securities (or securities convertible into or exercisable for equity securities) and (ii) unrestricted grants or gifts.
2. * (*) * from the Original Effective Date	Licensee to * (with COH listed as principal institution for the clinical trial). Licensee may extend this Deadline Date for up to * (*) additional * (*) month periods upon payment of $* to COH, for each * month (*) period.
3. * (*) * from the Original Effective Date	Licensee to * (with COH listed as principal institution for the clinical trial). Licensee may extend this Deadline Date for up to * (*) additional * (*) month periods upon payment of $* to COH for each * month (*) period. If, however, this Diligence Milestone is not achieved after these * (*) extensions through no fault of Licensee, this Diligence Milestone will be additionally extended for as long as the Research Agreement is in effect.

*Confidential material redacted and filed separately with the Commission.

2.3 **Governance**. COH and Licensee shall each designate one individual to serve as the main point of contact for communications related to development and commercialization of Licensed Products and Licensed Services under this Agreement (each a "**Designated Representative**"). The initial Designated Representative of COH shall be George Megaw and the initial Designated Representative of Licensee shall be Michael S. Weiss. Each Party may replace its Designated Representative at any time upon prior notice to the other Party. Licensee shall keep COH reasonably informed as to progress in the development and commercialization of Licensed Products and Licensed Services. Without limiting the foregoing, on or before January 15 and July 15 of each year during the term of this Agreement, Licensee shall provide to COH a written report setting forth, in reasonable detail, its activities and achievements with respect to the development and commercialization of Licensed Products and Licensed Services during the preceding six months (the "**Semi-Annual Report**"). Each Semi-Annual Report shall also include the COH reference number, OTL 16-542. The Designated Representatives shall meet in person twice each calendar year to present and discuss the current Semi-Annual Report at such location and date as mutually agreed. Each Party shall be responsible for all expenses incurred by its Designated Representative in the participation in such annual meetings. A copy of each Semi-Annual Report shall be provided, in addition to the persons set forth in Section 14.7, to: The Office of Technology Licensing, email: licensing@coh.org.

ARTICLE 3: LICENSE GRANTS

3.1 **Grant of Rights**.

3.1.1 Exclusive Patent License. COH hereby grants to Licensee an exclusive royalty-bearing right and license under the IL-13 Patent Rights to make, have made, use, offer for sale, sell and import Licensed Products and to perform Licensed Services, in the Field, in the Territory; **provided**, **however**, the foregoing license does not include any right or license under any patent claim of the IL-13 Patent Rights that includes a limitation directed toward the COH Spacer Technology. The Parties acknowledge and agree that Licensee is granted rights to practice such COH Spacer Technology pursuant to the A&R Spacer License.

3.1.2 Exclusive Study Data License. Subject to Section 8.2.4, COH hereby grants to Licensee an exclusive right and license under the Study Data to make, have made, use, offer for sale, sell and import Licensed Products and to perform Licensed Services, in the Field, in the Territory.

3.1.3 The foregoing grant of rights shall be subject to: (i) the retained rights of the U.S. Government in the IL-13 Patent Rights pursuant to 35 U.S.C. §§ 200-212 and applicable U.S. government regulations, (ii) the royalty-free right of COH and its Affiliates to practice the IL-13 Patent Rights and the Study Data for educational and research uses, (iii) the right of COH and its Affiliates to publicly disclose research results including, to the extent applicable, as specified in the Research Agreement, and (iv) the right of COH and its Affiliates to allow other non-profit institutions to use the IL-13 Patent Rights and the Study Data for the same purposes as (ii) and (iii).

3.2 **No Implied Licenses**. Licensee acknowledges that the licenses granted in this Agreement are limited to the scope expressly granted and that, subject to the terms and conditions of this Agreement, all other rights under all IL-13 Patent Rights, the Study Data, and other intellectual property rights Controlled by COH are expressly reserved to COH.

3 . 3 **Sublicensing**. Licensee shall have the right to sublicense its rights hereunder without the consent of COH, effective on notice to COH. The terms and conditions of each sublicense of Licensee's rights hereunder shall be consistent with this Agreement. A true and complete copy of each sublicense of Licensee's rights hereunder, as well as any amendment thereto, shall be delivered to COH promptly following the effective date of each such sublicense or amendment.

3.4 **Effect of Termination on Sublicenses.**

(a) In the event that this Agreement terminates at any time for any reason, each sublicense validly granted hereunder which is in good standing as of the effective date of such termination shall continue in effect as a direct license between COH (as licensor) and Sublicensee (as licensee), provided that: (i) such sublicense, as determined by COH in its reasonable and good faith discretion, contains or imposes on COH no material obligation or liability additional to those set forth in this Agreement, (ii) the Sublicensee delivers to COH, within thirty (30) days of the effective date of the termination of this Agreement, written acknowledgement that all payment and other obligations previously payable to Licensee under such sublicense shall thereafter be payable and due, and be paid directly to COH, and (iii) such Sublicensee (including its employees and contractors) is not at such time debarred or excluded or otherwise ineligible for participation in federally funded programs. All other sublicenses in existence as of the effective date of the termination of this Agreement which fail to satisfy the foregoing conditions shall, upon such termination, terminate.

(b) Further and in addition to the requirements of Section 3.4(a), above, the conversion of a sublicense into a direct license between COH (as licensor) and Sublicensee (as licensee) upon termination of this Agreement shall require that either [A] or [B] (but not both), below, be satisfied:

[A] On the effective date of the termination of this Agreement:

(i) the Sublicensee is not a party to a proceeding in bankruptcy or insolvency filed by or against such Sublicensee, has not made a general assignment for the benefit of its creditors, and is not in litigation with COH or any Affiliate of COH, *and*

(ii) (1) the effective royalty rate payable on Sublicensee's Net Sales of Licensed Products and Licensed Services, (2) the aggregate of other non-sale/royalty-based consideration due from Sublicensee, and (3) the other material terms and conditions of the sublicense are materially no less favorable to COH than the corresponding terms (excluding the stock grant due pursuant to Section 4.3, below) of this Agreement, ***or***

[B] the terms and conditions of the sublicense had been approved by COH prior to its having been entered into by Licensee and the Sublicensee, such approval having been considered by COH expeditiously and not conditioned on the payment by Licensee of any additional consideration.

3.5 **Documentation of Licensed Services**. Licensee and its Sublicensees shall provide Licensed Services only pursuant to one or more written agreements which set forth, in reasonable detail, all consideration due to Licensee for the provision of such services. Licensee shall provide a true and complete copy of each such agreement to COH promptly following the effective date of such agreement.

ARTICLE 4: PAYMENTS

4.1 **Up-Front Payment**. The Parties acknowledge and agree that the non-refundable license fee of $* payable by Licensee within thirty (30) days after the Original Effective Date pursuant to the Original Agreement has been paid by Licensee as of the A&R Effective Date.

4.2 **License Maintenance Fee**. On or before the tenth Business Day after the end of each License Year (excluding the first License Year ending December 31, 2015), Licensee shall pay to COH a non-refundable license maintenance fee of $*. The license maintenance fee paid in a given License Year shall be applied as credit against royalties otherwise due to COH pursuant to Section 4.8, below, during the License Year in which payment was made but may not be carried over and applied as credit against royalties due in subsequent years.

4.3 **Stock Grant**.

(a) Concurrently with the execution of the Original Agreement, Licensee issued to COH stock certificates evidencing 333,333 validly issued, fully-paid, non-assessable shares of Class A Common Stock. At the closing of each Qualified Financing that occurs prior to the achievement of the Qualified Financing Protection Ceiling, Licensee will issue to COH and such reasonable number of designees as COH may specify (provided that each such designee has: (i) demonstrated to the reasonable satisfaction of Licensee that it is an "accredited investor" as such term is defined in Regulation D promulgated under the Securities Act of 1933 (the "**Act**"), (ii) represented to Licensee that it is acquiring the shares for investment purposes only, and (iii) acknowledged that the shares to be received are restricted securities under the Act (COH and its designees collectively, the "**COH Stockholders**"), stock certificates evidencing a number of shares of validly issued, fully-paid, non-assessable shares of Class A Common Stock that is determined such that upon the completion of such issuance, COH and its designees will hold 10% of the total number of shares of Qualifying Stock, calculated as of immediately after the closing of such Qualified Financing (the "**Measurement Date**"). Promptly after the applicable Measurement Date, Licensee will deliver to the COH Stockholders (i) certificates representing the shares of Class A Common Stock to be issued in accordance with the foregoing, and (ii) a certificate, executed on behalf of Licensee by an executive officer of Licensee, showing Licensee's calculation of the number of shares of Qualifying Stock as of the Measurement Date, the sales price of each share of capital stock issued in the Qualified Financings, and the gross proceeds and Net Proceeds of the Qualified Financings and Licensee's calculation of the shares of Class A Common Stock to be issued to the COH Stockholders. Such shares of Class A Common Stock will be issued in consideration for the benefits provided to Licensee under the Agreement and no additional consideration shall be payable for such shares of Class A Common Stock.

*Confidential material redacted and filed separately with the Commission.

(c) COH and the other COH Stockholders acknowledge and agree that the COH Shares will be restricted securities and will not be registered with the Securities and Exchange Commission or qualified with any state securities authority and that, accordingly, the COH Shares may not be distributed, sold or otherwise transferred except pursuant to an effective registration statement under the Act or pursuant to an available exemption from the registration requirements of the Act.

4.4 **First Public Offering Fee**. At the closing of the first Qualified Public Offering of stock of Licensee, Licensee shall pay COH a one-time non-refundable fee of $*.

4.5 **Sale of Business**. Upon any Change in Control of Licensee, Licensee shall pay COH a non-refundable fee of $*.

4.6 [Reserved]

4 . 7 **Milestone Payments**. Within thirty (30) days after the occurrence of each "**Milestone Event**" set forth below, Licensee shall pay COH or its designee the amount indicated below:

Milestone Event	**Amount Due**
#1. Upon *.	$ *
#2. Upon *.	$ *
#3. Upon the *.	$ *
#4. Upon the *.	$ *
#5. Upon *.	$ *
#6. Upon *.	$ *
#7. Upon *.	$ *
#8. Upon *.	$ *

In the event that any *, then Licensee shall also pay the amount due for occurrence of Milestone Event #5 upon receiving such * (*e.g.*, if *, Licensor shall pay COH $*). The Parties agree that in the event that a *, then Licensee shall simultaneously pay the amounts due for occurrence of Milestone Event #1 and Milestone Event #2 (*e.g.*, if a *, Licensor shall pay COH $*). For clarity, each payment above shall be made only once, regardless of the number of Licensed Products or Licensed Services achieving each Development Milestone Event.

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4.8 **Royalties**.

(a) Subject to Subsection (c) and Section 4.9 below, Licensee shall pay to COH or its designee royalties in an amount equal to (i) * percent of Net Sales of Licensed Products up to and including $*; (ii) * percent of Net Sales of Licensed Products greater than $* up to and including $*; and (iii) * percent of Net Sales of Licensed Products that exceed $*. Royalties shall be paid on a Licensed Product-by-Licensed Product and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims under the IL-13 Patent Rights in such country Covering Licensed Product.

(b) Subject to Subsection (c) and Section 4.9 below, Licensee shall pay to COH or its designee royalties in an amount equal to (i) * percent of Net Sales of Licensed Services up to and including $*; (ii) * percent of Net Sales of Licensed Services greater than $* up to and including $*; and (iii) * percent of Net Sales of Licensed Services that exceed $*. Royalties shall be paid on a Licensed Service-by-Licensed Service and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims under the IL-13 Patent Rights in such country Covering Licensed Service.

(c) Beginning in the calendar year of Marketing Approval in any jurisdiction of the first Licensed Product or Licensed Service by Licensee or Sublicensees and if the total earned royalties paid by Licensee under Sections 4.8(a) and (b) in any such year cumulatively amounts to less than $* for that calendar year ("**Minimum Annual Royalty**"), Licensee shall pay to COH on or before February 28 following the last quarter of such year the difference between the $* minimum royalty noted above and the total earned royalty paid by Licensee for such year under Sections 4.8(a) and (b), provided, however, that for the first year of commercial sales of the first Licensed Product or Licensed Services, the amount of minimum annual royalty payable shall be pro-rated for the number of months remaining in that calendar year.

4.9 **Royalty Offsets**.

4.9.1 Third Parties. If, in Licensee's reasonable business judgment it is necessary to pay to a Third Party other than a Sublicensee consideration (whether in the form of a royalty or otherwise) for the right to make, have made, use, sell, offer for sale or import a Licensed Product or Licensed Service in a given jurisdiction, and if the aggregate royalty rates of any and all royalties payable to such Third Party licensors when combined with the royalty rate payable to COH exceeds * percent in the case of Net Sales of Licensed Products or Licensed Services, then Licensee shall have the right with respect to any period for which royalties are due (i.e., a calendar quarter or calendar year) to set off * percent of the aggregate royalties otherwise payable with respect to such period and such jurisdiction to such Third Party licensors against royalties that would otherwise be due to COH hereunder with respect to such period and jurisdiction; provided, however, that each Third Party licensor agrees to be stacked proportionally; and provided further, however, that under no circumstances shall the royalty offsets permitted in this Section 4.9.1 result in the reduction of the effective adjusted royalty rate and the royalty amount otherwise due to COH in any period for which payment is due and in any jurisdiction pursuant to Section 4.8, above, by more than * percent (e.g., minimum effective adjusted royalty rate for Licensed Product or Licensed Services sales up to $* shall be * percent).

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4.9.2 A&R Spacer License. In the event that royalties are due to COH by Licensee pursuant to Section 4.7(b) of the A&R Spacer License, then Licensee may set off such royalties payable to COH against the royalties payable to COH by Licensee pursuant to Section 4.8 of this Agreement.

4.10 **Sublicense Revenues**. Licensee shall pay to COH a percentage of all Sublicense Revenues within thirty (30) days after payment is received from the relevant Sublicensee, determined as follows:

(a) * percent of Sublicense Revenues if the Sublicense is granted prior to the *,

(b) * percent of all Sublicense Revenues if the Sublicense is granted prior to the *,

(c) * percent of all Sublicense Revenues if the Sublicense is granted prior to the *, and

(d) * percent of all Sublicense Revenues if the Sublicense is granted after *.

If Sublicense Revenues are not in cash or cash equivalents, the percentage share payable to COH pursuant to this Section 4.10 shall be due, in COH's sole discretion, either in kind or in its cash equivalent.

4.11 **Timing of Royalty Payments**. Royalty payments due under Section 4.8, above, shall be paid annually within sixty (60) days following the end of each License Year until the first License Year in which aggregate Net Sales reach $*. Thereafter, all royalty payments due under Section 4.8 shall be paid in quarterly installments, within sixty (60) days following the end of each calendar quarter.

4.12 **No Deductions from Payments**. Licensee is solely responsible for payment of any fee, royalty or other payment due to any Third Party not a Sublicensee in connection with the research, development, manufacture, distribution, use, sale, import or export of a Licensed Product or Licensed Service and, except as set forth in Section 4.9.1, above, Licensee shall not have the right to set off any amounts paid to such a Third Party, including fee, royalty or other payment, against any amount payable to COH hereunder.

4.13 **Single Royalty**. Only a single royalty payment shall be due and payable on Net Sales of a Licensed Product or performance of a Licensed Service, regardless if such Licensed Product or Licensed Service is Covered by more than one Valid Claim under the IL-13 Patent Rights.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 5: REPORTS, AUDITS AND FINANCIAL TERMS

5.1 **Royalty Reports**. Within sixty (60) days after the end of each calendar quarter in which a royalty payment under Article 4 is required to be made, Licensee shall send to COH a report of Net Sales of the Licensed Products and Licensed Services for which a royalty is due, which report sets forth for such calendar quarter the following information, on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service and country-by-country basis: (i) total Net Sales, (ii) total gross sales of Licensed Products and Licensed Services, (iii) the quantity of each Licensed Products sold and Licensed Services performed, (iv) the exchange rate used to convert Net Sales from the currency in which they are earned to United States dollars; and (v) the total royalty payments due. All royalty reports shall also include the COH reference number, OTL 16-542. A copy of each royalty report shall be provided, in addition to the persons set forth in Section 14.7, to: The Office of Technology Licensing, email: otl-royalties@coh.org.

5.2 **Additional Financial Terms**.

5.2.1 **Currency**. All payments to be made under this Agreement shall be made in United States dollars, unless expressly specified to the contrary herein. Net Sales outside of the United States shall be first determined in the currency in which they are earned and shall then be converted into an amount in United States dollars. All currency conversions shall use the conversion rate reported by Reuters, Ltd. on the last Business Day of the calendar quarter for which such payment is being determined.

5.2.2 **Payment Method**. Amounts due under this Agreement shall be paid in immediately available funds, by means of wire transfer to an account identified by COH.

5.2.3 **Withholding of Taxes**. Licensee may withhold from payments due to COH amounts for payment of any withholding tax that is required by law to be paid to any taxing authority with respect to such payments. Licensee shall provide to COH all relevant documents and correspondence, and shall also provide to COH any other cooperation or assistance on a reasonable basis as may be necessary to enable COH to claim exemption from such withholding taxes and to receive a full refund of such withholding tax or claim a foreign tax credit. Licensee shall give COH proper evidence from time to time as to the payment of such tax. The Parties shall cooperate with each other in seeking deductions under federal and state tax laws and any double taxation or other similar treaty or agreement from time to time in force.

5.2.4 **Late Payments**. Any amounts not paid on or before the date due under this Agreement are subject to interest from the date due through and including the date upon which payment is received. Interest is calculated, over the period between the date due and the date paid, at a rate equal to * percentage point (*%) over the "bank prime loan" rate, as such rate is published in the U.S. Federal Reserve Bulletin H.15 or successor thereto on the last Business Day of the applicable calendar quarter prior to the date on which such payment is due.

*Confidential material redacted and filed separately with the Commission.

5.2.5 **Blocked Currency**. If, at any time, legal restrictions prevent the prompt remittance of part or all royalties with respect to any country where a Licensed Product is sold or Licensed Service provided, payment shall be made through such lawful means or methods as Licensee may determine. When in any country, the law or regulations prohibit both the transmittal and deposit of royalties or other payments, Licensee shall continue to report all such amounts, but may suspend payment for as long as such prohibition is in effect. As soon as such prohibition ceases to be in effect, all amounts that would have been obligated to be transmitted or deposited but for the prohibition, together with accrued interested thereon, shall promptly be transmitted to COH.

5.3 **Accounts and Audit**.

5.3.1 **Records**. Licensee shall keep, and shall require that each Sublicensee keep, full, true and accurate books of account containing the particulars of its Net Sales and the calculation of royalties. Licensee and its Sublicensees shall each keep such books of account and the supporting data and other records at its principal place of business. Such books and records must be maintained available for examination in accordance with this Section 5.3.1 for five calendar years after the end of the calendar year to which they pertain, and otherwise as reasonably required to comply with GAAP.

5.3.2 **Appointment of Auditor**. COH may appoint an internationally- recognized independent accounting firm reasonably acceptable to Licensee to inspect the relevant books of account of Licensee and its Sublicensees to verify any reports or statements provided, or amounts paid or invoiced (as appropriate), by Licensee or its Sublicensees.

5.3.3 **Procedures for Audit**. COH may exercise its right to have Licensee's and its Sublicensees' relevant records examined only during the five year period during which Licensee is required to maintain records, no more than once in any consecutive four calendar quarters. Licensee and its Sublicensees are required to make records available for inspection only during regular business hours, only at such place or places where such records are customarily kept, and only upon receipt of at least 15 days advance notice from COH.

5.3.4 **Audit Report**. The independent accountant will be instructed to provide to COH an audit report containing only its conclusions and methodology regarding the audit, and specifying whether the amounts paid were correct and, if incorrect, the amount of any underpayment or overpayment.

5.3.5 **Underpayment and Overpayment**. After review of the auditor's report: (i) if there is an uncontested underpayment by Licensee for all of the periods covered by such auditor's report, then Licensee shall pay to COH the full amount of that uncontested underpayment, and (ii) if there is an uncontested overpayment for such periods, then COH shall provide to Licensee a credit against future payments (such credit equal to the full amount of that overpayment), or, if Licensee is not obligated to make any future payments, then COH shall pay to Licensee the full amount of that overpayment. Contested amounts are subject to dispute resolution under Article 12. If the total amount of any such underpayment (as agreed to by Licensee or as determined under Article 12) exceeds * percent of the amount previously paid by Licensee for the period subject to audit, then Licensee shall pay the reasonable costs for the audit. Otherwise, all costs of the audit shall be paid by COH.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 6: LICENSEE COVENANTS

6.1 Licensee covenants and agrees that:

(a) During the period commencing on the Original Effective Date and ending on the third (3rd) anniversary of the Original Effective Date, both Dr. Lindsay A. Rosenwald and Michael S. Weiss will hold senior management positions of Licensee; provided, that, in the event of a Change of Control of Licensee, subsequent to such Change of Control, in the event that either Dr. Lindsay A. Rosenwald or Michael S. Weiss no longer holds a senior management position of Licensee both individuals must remain materially involved with the oversight and management of the development of Licensed Products during such period; provided further that in the event of the death of either of Dr. Rosenwald or Mr. Weiss, Licensee will be excused from observing this Section 6.1(a) with regard to the decedent;

(b) the Charter provides, and any amendment thereto will provide, the holders of Class A Shares with the right to nominate one individual to the board of directors of Licensee for a period of ten years after the formation of Licensee;

(c) in conducting activities contemplated under this Agreement, it shall comply in all material respects with all applicable laws and regulations including, without limitation, those related to the manufacture, use, labeling importation and marketing of Licensed Products and Licensed Services;

(d) Licensee had obtained and after the date hereof will obtain all authorizations necessary for the issuance of the COH Shares and the Common Stock issuable to COH upon conversion of the COH Shares issuable pursuant to this Agreement and/or the Charter prior to the issuance of such COH Shares and in any event prior to the issuance of any Qualifying Stock or the consummation of a Change of Control and covenants that all such shares issued on or prior to the date hereof are, and those issued after the date hereof will be, validly issued, fully paid and non-assignable and free of restrictions on transfer, other than restrictions on transfer under state and federal securities laws; and

(e) without limiting the foregoing and notwithstanding any other provision in this Agreement, Licensee acknowledges and agrees that it is an exclusive Licensee under this Agreement and agrees (i) to be subject to all laws and other obligations applicable to the CIRM Grant as they apply to an exclusive Licensee, including diligence, reporting, access and pricing requirements, and (ii) to assist COH as necessary to ensure COH remains in compliance with any laws and other obligations applicable to the CIRM Grant.

ARTICLE 7: INTELLECTUAL PROPERTY; PATENT PROSECUTION, MAINTENANCE AND ENFORCEMENT.

7.1 **Patent Prosecution, Maintenance and Enforcement**.

(a) COH shall be responsible for the preparation, filing, prosecution, and maintenance of all IL-13 Patent Rights, using counsel of its choice. COH will timely provide Licensee with copies of all relevant documentation relating to such prosecution and Licensee shall keep such information confidential. In addition, COH shall instruct the patent counsel prosecuting IL-13 Patent Rights to (i) copy Licensee on patent prosecution documents that are received from or filed with the United States Patent and Trademark Office and foreign equivalent, as applicable; (ii) if requested by Licensee, provide Licensee with copies of draft submissions to the USPTO prior to filing; and (iii) give reasonable consideration to the comments and requests of Licensee or its patent counsel, provided that (a) COH reserves the sole right to make all final decisions with respect to the preparation, filing, prosecution and maintenance of such patent applications and patents; and (b) the patent counsel remains counsel to COH (and shall not jointly represent Licensee unless requested by Licensee and approved by COH, and an appropriate engagement letter and conflict waiver are in effect). All patents and patent applications in IL-13 Patent Rights, to the extent assignable in whole or in part to COH, shall be assigned to COH.

(b) COH will not unreasonably refuse to amend any patent application in IL-13 Patent Rights to include claims reasonably requested by Licensee to protect the products contemplated to be sold by Licensee under this Agreement. If Licensee informs COH of other countries or jurisdictions in which it wishes to obtain patent protection with respect to the IL-13 Patent Rights, COH shall prepare, file, prosecute and maintain patent applications in such counties and any patents resulting therefrom (and, for the avoidance of doubt, such patent applications and patents shall be deemed included in the IL-13 Patent Rights). On a country by country and patent by patent basis, Licensee may elect to surrender any patent or patent application in IL-13 Patent Rights in any country upon sixty (60) days advance written notice to COH. Such notice shall relieve Licensee from the obligation to pay for future patent costs but shall not relieve Licensee from responsibility to pay patent costs incurred prior to the expiration of the sixty (60) day notice period. Such U.S. or foreign patent application or patent shall thereupon cease to be a IL-13 Patent Right hereunder, Licensee shall have no further rights therein and COH shall be free to license its rights to that particular U.S. or foreign patent application or patent to any other party on any terms.

(c) Each Party shall promptly provide written notice to the other in the event it becomes aware of any actual or probable infringement of any of the IL-13 Patent Rights in or relevant to the Field or of any Third Party claim regarding the enforceability or validity of any IL-13 Patent Rights ("**Infringement Notice**"). Licensee shall, in cooperation with COH, use reasonable efforts to terminate infringement without litigation.

(d) If infringing activity has not been abated within ninety (90) days following the date the Infringement Notice takes effect, then Licensee may, following consultation with COH, in its sole discretion and at its sole expense, take action against any alleged infringer or in defense of such any claim, provided, that Licensee has exclusive rights under this Agreement. Any recovery obtained by Licensee as the result of legal proceedings initiated and paid for by Licensee pursuant to this subsection (d), after deduction of Licensee's reasonable out-of-pocket expenses incurred in securing such recovery, shall be deemed to be Net Sales of Licensed Products and/or Licensed Services in the calendar quarter in which such recovery was received and royalties shall be due and payable thereon accordingly.

(e) If COH is involuntarily joined in a suit initiated by Licensee, then the Licensee will pay any costs incurred by COH arising out of such suit, including but not limited to, reasonable legal fees of counsel that COH selects and retains to represent it in the suit.

(f) In the event that Licensee declines either to cause such infringement to cease (e.g., by settlement or injunction) or to initiate and thereafter diligently maintain legal proceedings against the infringer other than as part of a mutually agreed upon bona fide strategy, developed with the guidance of outside patent counsel, to preserve the IL-13 Patent Rights, COH may, in its sole discretion and at its sole expense, take action against such alleged infringer or in defense of any such Third Party claim. Any recovery obtained by COH as the result of any such legal proceedings shall be for the benefit of COH only.

7.2 **Trademarks**. Licensee shall be responsible for the selection, registration, maintenance, and defense of all trademarks for use in connection with the sale or marketing of Licensed Products and Licensed Services in the Field in the Territory (the "**Marks**"), as well as all expenses associated therewith. All uses of the Marks by Licensee or a Sublicensee shall comply in all material respects with all applicable laws and regulations (including those laws and regulations particularly applying to the proper use and designation of trademarks in the applicable countries). Licensee shall not, without COH's prior written consent, use any trademarks or house marks of COH (including the COH corporate name), or marks confusingly similar thereto, in connection with Licensee commercialization of Licensed Products or Licensed Services under this Agreement in any promotional materials or applications or in any manner implying an endorsement by COH of Licensee or the Licensed Products or Licensed Services. Licensee shall own all Marks.

7.3 **Challenge to the IL-13 Patent Rights by Licensee**.

(a) COH may terminate this Agreement and, notwithstanding Section 3.3, above, all Sublicenses issued hereunder, upon written notice to Licensee in the event that Licensee or any of its Affiliates or Sublicensees directly or indirectly asserts a Patent Challenge. "**Patent Challenge**" means any challenge in a legal or administrative proceeding to the patentability, validity or enforceability of any of the IL-13 Patent Rights (or any claim thereof), including by: (a) filing or pursuing a declaratory judgment action in which any of the IL-13 Patent Rights is alleged to be invalid or unenforceable; (b) citing prior art against any of the IL-13 Patent Rights, filing a request for or pursuing a re-examination of any of the IL-13 Patent Rights (other than with COH's written agreement), or becoming a party to or pursuing an interference; or (c) filing or pursuing any re-examination, opposition, cancellation, nullity or other like proceedings against any of the IL-13 Patent Rights; but excluding any challenge raised as a defense against a claim, action or proceeding asserted by COH against Licensee, its Affiliates or Sublicensees. In lieu of exercising its rights to terminate under this Section 7.3(a) COH may elect upon written notice to increase the payments due under all of Section 4 by * percent (*%), which election will be effective retroactively to the date of the commencement of the Patent Challenge. Licensee acknowledges and agrees that this Section 7.3(a) is reasonable, valid and necessary for the adequate protection of COH's interest in and to the IL-13 Patent Rights, and that would not have granted to Licensee the licenses under those IL-13 Patent Rights, without this Section 7.3(a).

*Confidential material redacted and filed separately with the Commission.

(b) **Payment of COH Patent Expenses**. The Parties acknowledge that, prior to the Original Effective Date, COH provided to Licensee documentation of historic expenses incurred by COH with respect to the drafting, prosecution and maintenance of the IL-13 Patent Rights. In consideration of such historic expenditures by COH, the Parties acknowledge and agree that Licensee has reimbursed COH for such expenses within thirty (30) days of the Original Effective Date.

(c) After the Original Effective Date, COH shall provide to Licensee an annual invoice and reasonably detailed documentation with respect to COH's out-of-pocket expenses incurred with respect to such prosecution and maintenance for the previous year. Licensee shall reimburse COH for * percent of such expenses within thirty (30) days after receipt of such invoice and documentation.

7.4 **Marking**. Licensee and its Sublicensees shall mark all Licensed Products and all materials related to Licensed Services in such a matter as to conform with the patent laws of the country to which such Licensed Products are shipped or in which such products are sold and such Licensed Services performed.

ARTICLE 8: TERM AND TERMINATION

8.1 **Term and Expiration of Term**. The term of this Agreement (the "**Term**") shall commence on the A&R Effective Date and, notwithstanding any other provision of this Agreement, unless sooner terminated by mutual agreement or pursuant to any other provision of this Agreement, this Agreement shall expire on a country-by-country basis and on a IL-13 Patent Right-by- IL-13 Patent Right basis on the later to occur of: (a) the expiration of the last to expire of any of the IL-13 Patent Rights in such country (or if no patent issues, until the last patent application in IL-13 Patent Rights is abandoned), and (b) the date on which the last of the remaining obligations under this Agreement between the Parties with respect to the payment of milestones or royalties with respect to Licensed Products and Licensed Services have been satisfied (such expiry of the Term hereinafter referred to as "**Expiration**").

8.2 **Termination**.

8.2.1 **Material Breach**. Either Party may terminate this Agreement prior to its Expiration for any material breach by the other Party, provided, that, the Party seeking to terminate shall have first given the breaching Party notice of such material breach with reasonable particulars of the material breach, and the Party receiving the notice of the material breach shall have failed to cure that material breach within thirty (30) days after the date of receipt of such notice.

8.2.2 **Bankruptcy**. COH shall have the right to terminate this Agreement prior to its Expiration upon notice to Licensee, in the event that: (i) Licensee seeks protection of any bankruptcy or insolvency law other than with the prior consent of City of Hope, or (ii) a proceeding in bankruptcy or insolvency is filed by or against Licensee and not withdrawn, removed or vacated within 120 days of such filing, or there is adjudication by a court of competent jurisdiction that Licensee is bankrupt or insolvent.

*Confidential material redacted and filed separately with the Commission.

8.2.3 **Termination at Will by Licensee**. Licensee shall have the right to terminate this Agreement prior to its Expiration upon notice to COH without cause, effective no fewer than 90 days following the date of such notice.

8.2.4 **Breach-Based Termination of CTA**. Licensee and COH hereby acknowledge and agree that in the event that COH terminates the CTA pursuant to Section 11(a) or Section 4(b) of the CTA, Licensee's rights to the CTA Inventions and the Study Data under this Agreement shall automatically terminate as of the effective date of termination of the CTA; provided, that in the event of any such termination of the CTA by COH, Licensee shall provide written notice to COH within thirty (30) days of such termination.

8.3 **Effect of Termination**.

8.3.1 Upon any termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), all rights and licenses granted to Licensee under Article 4, if any, shall immediately terminate on and as of the effective date of termination as provided in Section 8.2, except that Licensee shall have the right to continue to sell Licensed Products manufactured prior to the effective date of such termination until the sooner of: (i) ninety (90) days after the effective date of termination, or (ii) the exhaustion of Licensee's inventory of Licensed Products.

8.3.2 Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration):

(a) Each Party shall promptly return to the other Party all relevant records and materials in its possession or control containing or comprising the other Party's Confidential Information and to which the Party does not retain rights hereunder.

(b) Licensee shall discontinue making any representation regarding its status as a licensee of COH for Licensed Products and Licensed Services. Subject to Section 8.3.1, above, Licensee shall cease conducting any activities with respect to the marketing, promotion, sale or distribution of Licensed Products and Licensed Services.

8.3.3 Termination of this Agreement through any means and for any reason pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), shall not relieve the Parties of any obligation accruing prior thereto, including the payment of all sums due and payable, and shall be without prejudice to the rights and remedies of either Party with respect to any antecedent breach of any of the provisions of this Agreement.

8.4 **Effect of Expiration**. In the event of Expiration of this Agreement for a particular Licensed Product (or Licensed Service) in a particular country pursuant to Section 8.1, the rightsand licenses granted to Licensee under this Agreement with respect to the Study Data in such country shall become nonexclusive, perpetual, irrevocable, and royalty-free.

8 . 5 **Survival**. Sections 4.11, 5.1, 5.2, 5.3, 7.4, 8.3, 8.4, 8.5, Article 10, Article 11, Article 12, Sections 14.2, 14.4, 14.7, and 14.10 shall survive termination of this Agreement for any reason pursuant to Section 8.2 and Expiration pursuant to Section 8.1.

ARTICLE 9: REPRESENTATIONS AND WARRANTIES

9.1 **Mutual Representations and Warranties**. COH and Licensee each represents and warrants as follows:

9.1.1 It has the right and authority to enter into this Agreement and all action required to be taken on its behalf, its officers, directors, partners and stockholders necessary for the authorization, execution, and delivery of this Agreement and, the performance of all of its obligations hereunder, and this Agreement, when executed and delivered, will constitute valid and legally binding obligations of such Party, enforceable in accordance with its terms, subject to: (i) laws limiting the availability of specific performance, injunctive relief, and other equitable remedies; and (ii) bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights generally;

9.1.2 Entry into this Agreement will not constitute a breach of any other agreement to which it is party;

9.1.3 It has read this Agreement, with assistance from its counsel of choice. It understands all of this Agreement's terms. It has been given a reasonable amount of time to consider the contents of this Agreement before each Party executed it. It agrees that it is executing this Agreement voluntarily with full knowledge of this Agreement's legal significance; and

9.1.4 It has made such investigation of all matters pertaining to this Agreement that it deems necessary, and does not rely on any statement, promise, or representation, whether oral or written, with respect to such matters other than those expressly set forth herein. It agrees that it is not relying in any manner on any statement, promise, representation or understanding, whether oral, written or implied, made by any Party, not specifically set forth in this Agreement. It acknowledges that, after execution of this Agreement, it may discover facts different from or in addition to those which it now knows or believes to be true. Nevertheless, it agrees that this Agreement shall be and remain in full force and effect in all respects, notwithstanding such different or additional facts.

9.2 **Representations and Warranties of COH**. COH represents and warrants that, as of the Original Effective Date, to the actual knowledge of the Investigator (as defined in the Research Agreement) and the Director of its Office of Technology Transfer without independent inquiry, COH has the full power and authority to grant the rights, licenses and privileges granted herein.

9.3 **Representations and Warranties of Licensee**. Licensee represents and warrants as of the Original Effective Date (except as specifically provided below) and as of the A&R Effective Date (except as specifically provided below):

9.3.1 all authorizations necessary for the issuance of the COH Shares and the Common Stock issuable to COH upon conversion of the COH Shares have been obtained;

9.3.2 no consent, approval, order, or authorization of, or registration, qualification, designation, declaration, or filing with, any federal, state, or local governmental authority on the part of Licensee was required in connection with the offer, sale, or issuance of the COH Shares (and the Common Stock issuable upon conversion of the COH Shares) or the consummation of any other transaction contemplated hereby, except for the following: (i) the filing of a notice of exemption pursuant to Section 25102(f) of the California Corporate Securities Law of 1968, as amended, which was filed by Licensee promptly following the Original Effective Date and promptly following any Measurement Date; and (ii) the compliance with other applicable state securities laws, which compliance has occurred or will occur within the appropriate time periods therefor. The offer, sale, and issuance of the COH Shares are exempt from the registration requirements of Section 5 of the Act, and from the qualification requirements of Section 25110 of the California Securities Law, and neither Licensee, nor any authorized agent acting on its behalf has taken or will take any action hereafter that results in the loss of such exemptions;

9.3.3 The sale of the COH Shares was not, and the subsequent conversion of the COH Shares into Common Stock will not be, subject to any preemptive rights or rights of first refusal that have not been properly waived or complied with;

9.3.4 The COH Shares, when issued, sold and delivered in accordance with the terms of the Original Agreement or this Agreement for the consideration expressed therein, were and will be duly and validly issued, fully paid and nonassessable and free of restrictions on transfer, other than restrictions on transfer under applicable state and federal securities laws. The Common Stock issuable upon conversion of the COH Shares has been duly and validly reserved for issuance and, upon issuance in accordance with the terms of the Charter, will be duly and validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under applicable state and federal securities laws.

9.3.5 As of the A&R Effective Date, the authorized capital stock of Licensee consists of (i) 50,000,000 shares of Common Stock (24,209,025[1] of which shall be issued and outstanding after giving effect to the issuances contemplated hereunder); of which 1,000,000 shares were designated as Class A Common Stock (1,000,000 of which are issued and outstanding (taking into account the issuance of the COH Shares of Class A Common Stock pursuant to the Original Agreement)), and (ii) 2,000,000 shares of preferred stock, 250,000 of which are designated as Series A Preferred Stock (250,000 of which are issued and outstanding). As of the A&R Effective Date there are outstanding warrants exercisable for 4,239,396 shares of Common Stock at an exercise price of $8.50 per share and 138,462 shares of Common Stock at an exercise price of $0.0001. As of the A&R Effective Date, Licensee has also reserved but has not issued an aggregate of 2,000,000 shares of Common Stock for issuance to employees, directors and consultants pursuant to Licensee's equity incentive compensation plans. As of the A&R Effective Date, all issued and outstanding shares were duly authorized and validly issued and were fully paid and nonassessable. Other than as provided in this Section 9.3.5 or pursuant to litigation as described in the Company's filings with the Securities and Exchange Commission prior to the date hereof, there are no other outstanding rights, options, warrants, preemptive rights, rights of first refusal, or similar rights for the purchase or acquisition from Licensee of any securities of Licensee nor any commitments to issue or execute any such rights, options, warrants, preemptive rights or rights of first refusal. The respective rights, preferences, privileges, and restrictions of the Common Stock, including the Class A Common Stock and the preferred stock, are solely as stated in the Charter. As of the Original Effective Date, the COH Shares represented a 10% interest in the capital stock of Licensee; and

[1] To be confirmed by Mustang

9.3.6 Licensee is not in violation or default of any provision of the Charter or its bylaws.

9.4 **Exclusions**. Nothing in this Agreement is or shall be construed as:

9.4.1 A warranty or representation by COH as to the validity or scope of any claim or patent or patent application within the IL-13 Patent Rights;

9.4.2 A warranty or representation by COH that anything made, used, sold, or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of any patent rights or other intellectual property right of any Third Party;

9.4.3 A grant by COH, whether by implication, estoppel, or otherwise, of any licenses or rights under any patents other than IL-13 Patent Rights as defined herein, regardless of whether such patents are dominant or subordinate to IL-13 Patent Rights;

9.4.4 An obligation on COH to bring or prosecute any suit or action against a third party for infringement of any of the IL-13 Patent Rights;

9.4.5 An obligation to furnish any know-how not provided in IL-13 Patent Rights or the Study Data; or

9.4.6 A representation or warranty of the ownership of the IL-13 Patent Rights or the Study Data other than as set forth in Section 9.2, above.

9.5 **DISCLAIMER**. **NO WARRANTY IS GIVEN WITH RESPECT TO THE IL-13 PATENT RIGHTS OR THE STUDY DATA, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND THE PARTIES SPECIFICALLY DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF THE IL-13 PATENT RIGHTS OR NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY OR OTHER RIGHTS OF ANY THIRD PARTY. THE WARRANTIES SET FORTH IN SECTIONS 9.1 AND 9.2, ABOVE, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, VALIDITY, NON-INFRINGEMENT AND ALL SUCH OTHER WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.**

ARTICLE 10: INDEMNIFICATION

10.1 **Indemnification by Licensee**. Licensee shall defend, indemnify and hold harmless COH, its Affiliates, officers, directors, shareholders, employees and agents ("**COH Indemnitees**") from and against any and all Third Party liabilities, claims, suits, and expenses, including reasonable attorneys' fees (collectively, "**Losses**"), arising out of or are in any way attributable to: (i) the material breach of any representation or warranty made by Licensee under this Agreement, (ii) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee, any of its Affiliates or a Sublicensee or any other exercise of rights under this Agreement or pursuant to any sublicense, or (iii) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or Sublicensee; in each case except to the extent that such Losses are caused directly by: (a) COH's material breach of any representation or warranty made by COH under this Agreement, (b) COH's material breach of its obligations under this Agreement, and/or (c) the gross negligence or willful misconduct of a COH Indemnitee.

10.2 **Indemnification by COH**. COH shall defend, indemnify and hold harmless Licensee and its Affiliates and their respective officers, directors, shareholders, employees and agents (collectively, the "**Licensee Indemnitees**") from and against any and all Losses caused directly by: (i) the material breach of any representation or warranty made by COH under this Agreement, or (ii) the gross negligence or willful misconduct of a COH Indemnitee, except to the extent that such Losses arise out of or are in any way attributable to: (a) the material breach of any representation or warranty made by Licensee under this Agreement, (b) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee or a Sublicensee, or (c) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or a Sublicensee.

10.3 **Procedure**. The indemnities set forth in this Article 10 are subject to the condition that the Party seeking the indemnity shall forthwith notify the indemnifying Party on being notified or otherwise made aware of a liability, claim, suit, action or expense and that the indemnifying Party defend and control any proceedings with the other Party being permitted to participate at its own expense (unless there shall be a conflict of interest which would prevent representation by joint counsel, in which event the indemnifying Party shall pay for the other Party's counsel); provided, that, the indemnifying Party may not settle the liability, claim, suit, action or expense, or otherwise admit fault of the other Party or consent to any judgment, without the written consent of the other Party (such consent not to be unreasonably withheld). Notwithstanding the foregoing, no delay in the notification of the existence of any claim of Loss shall cause a failure to comply with this Section 10.3 as long as such delay shall not have materially impaired the rights of the indemnifying Party.

10.4 **Insurance**.

(a) Within thirty (30) days following the Effective Date, Licensee shall procure at its sole expense and provide to COH evidence of comprehensive or commercial general liability insurance (contractual liability included) with limits of at least: (i) each occurrence, $*; (ii) products/completed operations aggregate, $*; (iii) personal and advertising injury, $*; and general aggregate (commercial form only), $*.

(b) The foregoing policies will provide primary coverage to COH and shall name the COH Indemnitees as additional insureds, and shall remain in effect during the term of this Agreement and for * years following the termination or expiration of the term of this Agreement. The COH Indemnitees shall be notified in writing by Licensee not less than thirty (30) days prior to any modification, cancellation or non-renewal of such policy. Licensee's insurance must include a provision that the coverages will be primary and will not participate with nor will be excess over any valid and collective insurance or program of self-insurance carried or maintained by the COH Indemnitees. Such insurance coverage shall be maintained with an insurance company or companies having an A.M. Best's rating (or its equivalent) of A-XII or better.

(c) Licensee expressly understands that the coverage limits in Section 10.4(a) do not in any way limit the Licensee's liability.

10.5 **LIMITATION ON DAMAGES**. **NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY, EXCEPT IN RELATION TO LICENSEE'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 10.1 AND ANY BREACH BY LICENSEE OF ARTICLE 11: (I) IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, PUNITIVE, CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS, LOST BUSINESS OR ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT) WHETHER BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR ANY OTHER LEGAL THEORY, AND (II) IN NO EVENT SHALL COH BE LIABLE TO LICENSEE FOR AN AGGREGATE AMOUNT IN EXCESS OF TWO-THIRDS OF THE TOTAL CONSIDERATION PAID TO COH HEREUNDER.**

ARTICLE 11: CONFIDENTIALITY

11.1 **Confidential Information**. During the term of this Agreement and for * (*) * thereafter without regard to the means of termination: (i) COH shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose to any Third Party Licensee Confidential Information; and (ii) Licensee shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose COH Confidential Information to any Third Party. The Parties shall take reasonable measures to assure that no unauthorized use or disclosure is made by others to whom access to such information is granted.

11.2 **Exceptions**. Notwithstanding the foregoing, a Party may use and disclose Confidential Information of the other Party as follows:

*Confidential material redacted and filed separately with the Commission.

(a) if required by applicable law, rule, regulation, government requirement and/or court order, provided, that, the disclosing Party promptly notifies the other Party of its notice of any such requirement and provides the other Party a reasonable opportunity to seek a protective order or other appropriate remedy and/or to waive compliance with the provisions of this Agreement;

(b) to the extent such use and disclosure occurs in the filing or publication of any patent application or patent on inventions;

(c) as necessary or desirable for securing any regulatory approvals, including pricing approvals, for any Licensed Products or Licensed Services, provided, that, the disclosing Party shall take all reasonable steps to limit disclosure of the Confidential Information outside such regulatory agency and to otherwise maintain the confidentiality of the Confidential Information;

(d) to take any lawful action that it deems necessary to protect its interest under, or to enforce compliance with the terms and conditions of, this Agreement;

(e) to the extent necessary, to its Affiliates, directors, officers, employees, consultants, vendors and clinicians under written agreements of confidentiality at least as restrictive as those set forth in this Agreement, who have a need to know such information in connection with such Party performing its obligations or exercising its rights under this Agreement; and

(f) by Licensee, to actual and potential investors, licensees, Sublicensees, consultants, vendors and suppliers, and academic and commercial collaborators, under written agreements of confidentiality at least as restrictive as those set forth in this Agreement.

11.3 **Certain Obligations**. During the Term and for a period of * (*) * thereafter and subject to the exceptions set forth in Section 11.2, Licensee, with respect to COH Confidential Information, and COH, with respect to Licensee Confidential Information, agree:

(a) to use such Confidential Information only for the purposes contemplated under this Agreement,

(b) to treat such Confidential Information as it would its own proprietary information which in no event shall be less than a reasonable standard of care,

(c) to take reasonable precautions to prevent the disclosure of such Confidential Information to a Third Party without written consent of the other Party, and

(d) to only disclose such Confidential Information to those employees, agents and Third Parties who have a need to know such Confidential Information for the purposes set forth herein and who are subject to obligations of confidentiality no less restrictive than those set forth herein.

*Confidential material redacted and filed separately with the Commission.

11.4 **Termination**. Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), and upon the request of the disclosing Party, the receiving Party shall promptly return to the disclosing Party or destroy all copies of Confidential Information received from such Party, and shall return or destroy, and document the destruction of, all summaries, abstracts, extracts, or other documents which contain any Confidential Information of the other Party in any form, except that each Party shall be permitted to retain a copy (or copies, as necessary) of such Confidential Information for archival purposes or to enforce or verify compliance with this Agreement, or as required by any applicable law or regulation.

ARTICLE 12: DISPUTE RESOLUTION

All Disputes shall be first referred to a Vice President, Center for Applied Technology Development of COH (the "**COH VP**") and the President of Licensee for resolution, prior to proceeding under the other provisions of this Article 12. A Dispute shall be referred to such executives upon one Party (the " **Initiating Party**") providing the other Party (the "**Responding Party**") with notice that such Dispute exists, together with a written statement describing the Dispute with reasonable specificity and proposing a resolution to such Dispute that the Initiating Party is willing to accept, if any. Within ten days after having received such statement and proposed resolution, if any, the Responding Party shall respond with a written statement that provides additional information, if any, regarding such Dispute, and proposes a resolution to such Dispute that the Responding Party is willing to accept, if any. In the event that such Dispute is not resolved within 60 days after the Responding Party's receipt of the Initiating Party's notice, either Party may bring and thereafter maintain suit against the other with respect to such Dispute; provided, however, that the exclusive jurisdiction of any such suit shall be the state and federal courts located in Los Angeles County, California, and the Parties hereby consent to the exclusive jurisdiction and venue of such courts.

ARTICLE 13: GOVERNMENTAL MATTERS

13.1 **Governmental Approval or Registration**. If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee shall assume all legal obligations to do so. Licensee shall notify COH if it becomes aware that this Agreement is subject to a U.S. or foreign government reporting or approval requirement. Licensee shall make all necessary filings and pay all costs including fees, penalties and all other out-of-pocket costs associated with such reporting or approval process.

13.2 **Export Control Laws**. Licensee shall observe all applicable U.S. and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations and the Export Administration Regulations.

13.3 **Preference for United States Industry**. If Licensee sells a Licensed Product in the U.S., Licensee shall manufacture said product substantially in the U.S.

ARTICLE 14: MISCELLANEOUS

14.1 **Assignment and Delegation**. Except as expressly provided in this Section 14.1, neither this Agreement nor any right or obligation hereunder shall be assignable in whole or in part, whether by operation of law, or otherwise by Licensee without the prior written consent of COH. Notwithstanding the foregoing, Licensee may assign or transfer its rights and obligations under this Agreement to a Person that succeeds to all or substantially all of that Party's business or assets, whether by sale, merger, operation of law or otherwise and provided that such Person agrees, in form and substance reasonably acceptable to COH, to be bound as a direct party to this Agreement in lieu of or in addition to Licensee and provided further that Licensee has complied with its obligations pursuant to Section 4.5. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the Parties hereto and their respective successors and permitted assignees. Any transfer or assignment of this Agreement in violation of this Section 14.1 shall be null and void.

14.2 **Entire Agreement**. This Agreement contains the entire agreement between the Parties relating to the subject matter hereof, and all prior understandings, representations and warranties between the Parties are superseded by this Agreement. For clarity, the Original Agreement shall be deemed amended and restated in its entirety by this Agreement, and the corresponding A&R CD123 License and the corresponding A&R Spacer License to be executed by the Parties simultaneously herewith, effective as of the A&R Effective Date.

14.3 **Amendments**. Changes and additional provisions to this Agreement shall be binding on the Parties only if agreed upon in writing and signed by the Parties.

14.4 **Applicable Law**. This Agreement shall be construed and interpreted in accordance with the laws of the State of California and all rights and remedies shall be governed by such laws without regard to principles of conflicts of law.

14.5 **Force Majeure**. If the performance of this Agreement or any obligations hereunder is prevented, restricted or interfered with by reason of earthquake, fire, flood or other casualty or due to strikes, riot, storms, explosions, acts of God, war, terrorism, or a similar occurrence or condition beyond the reasonable control of the Parties, the Party so affected shall, upon giving prompt notice to the other Parties, be excused from such performance during such prevention, restriction or interference, and any failure or delay resulting therefrom shall not be considered a breach of this Agreement.

14.6 **Severability**. The Parties do not intend to violate any public policy or statutory common law. However, if any sentence, paragraph, clause or combination of this Agreement is in violation of any law or is found to be otherwise unenforceable, such sentence, paragraph, clause or combination of the same shall be deleted and the remainder of this Agreement shall remain binding, provided that such deletion does not alter the basic purpose and structure of this Agreement.

14.7 **Notices**. All notices, requests, demands, and other communications relating to this Agreement shall be in writing in the English language and shall be delivered in person or by mail, international courier or facsimile transmission (with a confirmation copy forwarded by courier or mail). Notices sent by mail shall be sent by first class mail or the equivalent, registered or certified, postage prepaid, and shall be deemed to have been given on the date actually received. Notices sent by international courier shall be sent using a service which provides traceability of packages. Notices shall be sent as follows:

Notices to COH:	with a copy to:
Office of Technology Licensing City of Hope 1500 East Duarte Road Duarte, CA 91010 Attn: Sr. VP, Center for Applied Technology Development Fax: 626-301-8175	Office of General Counsel City of Hope 1500 East Duarte Road Duarte, CA 91010 Attn: General Counsel Fax: 626-301-8863
Notices to Licensee:	with a copy to:
Mustang Bio, Inc. 2 Gansevoort, 9th Floor New York, NY 10014 Attn: CEO	Mustang Bio, Inc. 2 Gansevoort, 9th Floor New York, NY 10014 Attn: Corporate Secretary

Either Party may change its address for notices or facsimile number at any time by sending notice to the other Party.

14.8 **Independent Contractor**. Nothing herein shall create any association, partnership, joint venture, fiduciary duty or the relation of principal and agent between the Parties hereto, it being understood that each Party is acting as an independent contractor, and neither Party shall have the authority to bind the other or the other's representatives in any way.

14.9 **Waiver**. No delay on the part of either Party hereto in exercising any power or right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any power or right hereunder preclude other or further exercise thereof or the exercise of any other power or right. No waiver of this Agreement or any provision hereof shall be enforceable against any Party hereto unless in writing, signed by the Party against whom such waiver is claimed, and shall be limited solely to the one event.

14.10 **Interpretation**. This Agreement has been prepared jointly and no rule of strict construction shall be applied against either Party. In this Agreement, the singular shall include the plural and vice versa and the word "including" shall be deemed to be followed by the phrase "without limitation." The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

14.11 **Counterparts**. This Agreement may be executed in counterparts, each of which together shall constitute one and the same Agreement. For purposes of executing this agreement, a facsimile copy or an emailed PDF of this Agreement, including the signature pages, will be deemed an original.

14.12 **Licensee Certification**. Licensee certifies to COH, under penalty of perjury, that Licensee has not been convicted of a criminal offense related to health care, is not currently debarred, excluded or otherwise ineligible for participation in federally funded health care programs and has not arranged or contracted (by employment or otherwise) with any employee, contractor, or agent that it knew or should have known are excluded from participation in any federal health care program, and will not knowingly arrange or contract with any such individuals or entities during the term of this Agreement. Licensee agrees to notify COH in writing immediately of any threatened, proposed or actual conviction relating to health care, of any threatened, proposed or actual debarment or exclusion from participation in federally funded programs, of COH or any employee, contractor or agent of COH. Any breach of this Section 14.12 by Licensee shall be grounds for termination of this Agreement by COH in accordance with Section 8.2.1.

14.13 **Publicity**. Neither Party may issue a press releases or otherwise disclose the existence or terms of this Agreement without the prior written consent of the other Party; provided, however, that once the existence or any terms or conditions of this Agreement has been publicly disclosed in a manner mutually and reasonably agreed-to by the Parties, either Party may republish the facts previously disclosed without the prior consent of the other Party. COH may, in its sole discretion and without the approval of Licensee, publicly disclose the existence of this Agreement and the overall potential value of the Agreement to COH, so long as the detailed and specific terms and conditions of this Agreement are not disclosed. If a third party inquires whether a license is available, COH may disclose the existence of the Agreement and the extent of its grant in Section 3.1 to such third party, but will not disclose the name of the Licensee, except where COH is required to release information under either the California Public Records Act or other applicable law. Notwithstanding the foregoing, COH may disclose an unredacted copy of this Agreement as required under applicable law and other obligations as applicable to the CIRM Grant.

* * * * *

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives.

MUSTANG BIO, INC.		CITY OF HOPE	
By:	/s/ Michael S. Weiss	By:	/s/ Robert Stone
Name	Michael S. Weiss	Name:	Robert Stone
Title:	President & CEO	Title:	President & CEO

EXHIBIT A

Form of Charter

EXHIBIT B

CTA

CONFIDENTIAL TREATMENT REQUESTED. Confidential portions of this document have been redacted and have been separately filed with the Commission.

Exhibit 10.16

AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT – SPACER

THIS AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT – SPACER (the "**Agreement**") is made and entered into as of the 17th day of February, 2017 (the "**A&R Effective Date**") by and between Mustang Bio, Inc. (f/k/a Mustang Therapeutics, Inc.), a Delaware corporation with a principal place of business at 2 Gansevoort, 9th Floor, New York, NY 10014 ("**Licensee**") and City of Hope, a California nonprofit public benefit corporation located at 1500 East Duarte Road, Duarte, California 91010 ("**City of Hope**" or "**COH**"). Licensee and COH are each sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties**."

WHEREAS:

A. COH operates an academic research and medical center that encourages the use of its inventions, discoveries and intellectual property for the benefit of the public, and COH owns or Controls (as defined below) certain Spacer Patent Rights (as defined below) useful in the Field (as defined below);

B. The inventions covered by the Spacer Patent Rights were invented by Dr. Stephen Forman who, as of the A&R Effective Date, is affiliated with COH;

C. The research was sponsored in part by the National Institute of Health, and as a consequence this license is subject to obligations to the United States Federal Government under 35 U.S.C. §§ 200-212 and applicable U.S. government regulations;

D. Licensee is a company dedicated to the commercial development and exploitation in the Field (as defined below) of products and services that incorporate one or more of the technologies described in the Spacer Patent Rights and therefore Licensee desires to obtain from COH a worldwide, exclusive license under the Spacer Patent Rights, on the terms and subject to the conditions set forth herein;

E. The Certificate of Incorporation of Licensee as of the A&R Effective Date is in the form attached hereto as Exhibit A (the "**Charter**") and provides, among other things, for the rights and preferences of a class of stock, referred to therein as Class A Common Stock, that was issued to COH or its designee(s) in accordance with the terms of the Original Agreement;

F. COH and Licensee have entered into (i) that certain Exclusive License Agreement, dated March 17, 2015 (the "**Original Effective Date**") (said agreement hereafter referred to as the "**Original Agreement**"), whereby COH granted to Licensee certain exclusive rights in certain patent rights related to IL-13, CD123, and spacer technologies, and (ii) that certain Sponsored Research Agreement between the Parties dated March 2015 (the "**Research Agreement**"); and

G. COH and Licensee now desire to amend and restate the Original Agreement, which related to certain chimeric antigen receptor ("**CAR**") technologies in connection with IL-13, CD123, and spacer technologies by entering into three separate amended and restated exclusive license agreements, one relating to CD123 (the "**A&R CD123 License**"), one relating to IL-13 (the "**A&R IL-13 License**"), and one relating to the spacer technology (this Agreement), that will amend the Original Agreement in certain other respects, and collectively replace the Original Agreement in its entirety.

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

ARTICLE 1: DEFINITIONS

1.1 "**Act**" means the Securities Act of 1933, as amended.

1.2 "**Affiliate**" of a Party means a Person that, directly or indirectly (through one or more intermediaries) controls, is controlled by, or is under common control with such Party. For purposes of this Section 1.2, "control" means (i) the direct or indirect ownership of 50 percent or more of the voting stock or other voting interests or interests in profits, or (ii) the ability to otherwise control or direct the decisions of board of directors or equivalent governing body thereof.

1.3 "**Business Day**" means any day, other than a Saturday, Sunday or day on which commercial banks located in Los Angeles, California, are authorized or required by law or regulation to close.

1.4 "**Change of Control**" means (i) any transaction or series of related transactions following which the holders of Licensee's capital stock immediately prior to such transaction or series of related transactions collectively are the owners of less than 50% of the outstanding equity interests of Licensee entitled to (a) vote with respect to the election of directors (or positions having a similar function) or (b) receive the proceeds upon any sale, liquidation or dissolution of Licensee, (ii) a sale, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, of all or a material portion of Licensee's interest in the Licensed Product or Licensed Service or (iii) a sale, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, of all or a material portion of Licensee's right title, or interest in its assets taken as a whole.

1.5 "**Class A Common Stock**" means Class A Common Stock, par value $0.0001 per share, of Licensee, with such rights preferences and privileges as are set forth in the Charter.

1.6 "**COH CAR**" means a CAR that is licensed to Licensee by COH pursuant to an applicable license agreement between the Parties, including but not limited to, pursuant to the A&R IL-13 License and the A&R CD123 License.

1.7 "**COH Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, COH to Licensee or its designees.

1.8 "**COH Shares**" means the shares of Class A Common Stock issued and to be issued to COH Stockholders in accordance with Section 4.3 of the Original Agreement and this Agreement and/or the terms of the Charter.

1.9 "**COH Spacer Technology**" means any spacer, hinge, or linker sequence(s) that is used to connect the *; of an applicable CAR and that is Covered by a Valid Claim.

1.10 "**Commercially Reasonable Efforts**" means the exercise of such efforts and commitment of such resources by Licensee, directly or through one or more Sublicensees, in a diligent manner consistent with organizations in the pharmaceutical industry for a comparable development or commercialization program at a similar stage of development or commercialization. In the event that Licensee or a Sublicensee with respect to a given Licensed Product or Licensed Service, has a program or product that competes with the programs contemplated by this Agreement with respect to such Licensed Product or Licensed Service, then "Commercially Reasonable Efforts" shall also mean efforts at least comparable to those efforts and resources expended by Licensee or its Sublicensee on the competing program and/or product or service.

1.11 "**Completion**" means, with respect to a particular clinical trial, the earlier of (i) the database lock or freeze related to the completion of treatment or examination of participants in such clinical trial or (ii) the dosing of the first patient in a clinical trial in a subsequent phase (*e.g.*, with respect to a Phase 1 Clinical Trial, the Phase 1 Clinical Trial will be deemed completed in the event a patient is dosed in a Phase 2 Clinical Trial before a database lock in the related Phase 1 Clinical Trial).

1.12 "**Common Stock**" means Common Stock, par value $0.0001 per share, of Licensee.

1.13 "**Confidential Information**" means: (i) all information and materials (of whatever kind and in whatever form or medium) disclosed by or on behalf of a Party to the other Party (or its designee) in connection with this Agreement, whether prior to or during the term of this Agreement and whether provided orally, electronically, visually, or in writing; provided that all such information and materials initially disclosed in writing or electronically shall be clearly marked as "CONFIDENTIAL" and all such materials and information initially disclosed orally shall be reduced to writing and marked as "CONFIDENTIAL" within 10 days following the date of initial oral disclosure; (ii) all copies of the information and materials described in (i) above; and (iii) the existence and each of the terms and conditions of this Agreement; provided further that Confidential Information shall not include information and materials to the extent a Party can demonstrate through its contemporaneous written records that such information and materials are or have been:

(a) known to the receiving Party, or in the public domain, at the time of its receipt by a Party, or which thereafter becomes part of the public domain other than by virtue of a breach of this Agreement or the obligations of confidentiality under this Agreement;

*Confidential material redacted and filed separately with the Commission.

(b) received without an obligation of confidentiality from a Third Party having the right to disclose without restrictions such information;

(c) independently developed by the receiving Party without use of or reference to Confidential Information disclosed by the other Party; or

(d) released from the restrictions set forth in this Agreement by the express prior written consent of the disclosing Party.

1.14 "**Control(s)**" or "**Controlled**" means the possession by a Party, as of the A&R Effective Date, of rights sufficient to effect the grant of rights set forth in this Agreement without violating the terms of any agreement with any Third Party.

1.15 "**Covers**" or "**Covered by**," means with reference to a particular Licensed Product or Licensed Service that the manufacture, use, sale, offering for sale, or importation of such Licensed Product or performance of such Licensed Service would, but for ownership of, or a license granted under this Agreement to, the relevant Patent Right, infringe a Valid Claim in the country in which the activity occurs.

1.16 "**Dispute**" means any controversy, claim or legal proceeding arising out of or relating to this Agreement, or the interpretation, breach, termination, or invalidity thereof.

1.17 "**Field**" means the treatment and diagnosis of all human diseases.

1.18 "**First Commercial Sale**" means, with respect to a particular Licensed Product or Licensed Service in a given country, the first arm's-length commercial sale of such Licensed Product or the first performance of such Licensed Service following Marketing Approval in such country by or under authority of Licensee or any Sublicensee to a Third Party who is not a Sublicensee.

1.19 "**GAAP**" means generally accepted accounting principles, consistently applied, as promulgated from time to time by the Financial Accounting Standards Board.

1.20 "**License Year**" means each calendar year during the term of this Agreement; except that the first License Year shall commence on the Original Effective Date and end on December 31 of the calendar year in which the Original Effective Date occurs.

1.21 "**Licensed Product**" means a product (including kits, component sets or components thereof, regardless of concentration or formulation) that: (i) is Covered by a Valid Claim, (ii) is manufactured by a process or used in a method Covered by a Valid Claim, or (iii) contains, as an active ingredient, any substance the manufacture, use, offer for sale or sale of which is Covered by a Valid Claim. By way of clarification, "Licensed Product" shall include a product manufactured in a country in which such manufacture is Covered by a Valid Claim and thereafter exported to and sold in a country in which no Valid Claim exists.

1.22 "**Licensed Service**" means any service the performance of which would, but for the license granted herein, infringe a Valid Claim.

1.23 "**Licensee Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, Licensee to COH or its designees.

1.24 "**Marketing Approval**" means all approvals, licenses, registrations or authorizations of any federal, state or local regulatory agency, department, bureau or other governmental entity, necessary for the manufacturing, use, storage, import, transport, marketing and sale of Licensed Products or performance of Licensed Services in a country or regulatory jurisdiction.

1.25 "**Net Proceeds**" means the net proceeds actually received by Licensee from all sales of shares of capital stock after deduction of all transaction expenses, finder's fees, advisory fees, legal fees, sales commissions or similar amounts paid to brokers or dealers and other costs and expenses incurred by Licensee or its subsidiaries in connection therewith. In the event such net proceeds are not paid to Licensee in cash, the value of such net proceeds will be the fair market value of the assets constituting such net proceeds.

1.26 "**Net Sales**" means the total gross amount invoiced by Licensee, its Affiliates and its Sublicensees (regardless of whether and when such invoices are actually paid) on the sale of Licensed Products and Licensed Services to Third Parties (including, without limitation, the provision of any product by Licensee, its Affiliates or any of its Sublicensee that incorporates a Licensed Product or Licensed Service but for clarity excluding documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead)), less the following items, as determined from the books and records of Licensee, its Affiliates or its Sublicensees:

(a) insurance, handling and transportation charges actually invoiced;

(b) amounts repaid, credited or allowed for rejection, return or recall;

(c) sales or other excise taxes or other governmental charges levied on or measured by the invoiced amount (including, without limitation, value added taxes);

(d) brokerage, customs and import duties or charges; and

(e) normal and customary trade and quantity discounts (including chargebacks and allowances) and rebates which relate to the Licensed Products or Licensed Services.

Sales of Licensed Products between or among Licensee, its Affiliates or its Sublicensees shall be excluded from the computation of Net Sales, except in those instances in which the purchaser is also the end-user of the Licensed Product sold. Further, transfers of reasonable quantities of Licensed Product by Licensee, any of its Affiliates or of its Sublicensee to a Third Party that is not a Sublicensee for use in the development of such Licensed Product (and not for resale) and transfers of industry standard quantities of Licensed Product for promotional purposes shall not be deemed a sale of such Licensed Product that gives rise to Net Sales for purposes of this Section 1.26.

1.27 "**Person**" means any person or entity, including any individual, trustee, corporation, partnership, trust, unincorporated organization, limited liability company, business association, firm, joint venture or governmental agency or authority.

1.28 "**Phase 1 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a study as described in 21 C.F.R. §312.21(a) or a comparable clinical study in a country other than the United States.

1.29 "**Phase 2 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a study in humans designed with the principal purpose of determining initial efficacy and dosing of such Licensed Product in patients for the indication(s) being studied as described in 21 C.F.R. §312.21(b); or a similar clinical study in a country other than the United States.

1.30 "**Qualified Financing**" means the sale of capital stock of Licensee, in one or more transactions, that constitute a bona fide equity financing at such time as the Net Proceeds to Licensee from third party investors that are not Affiliates of Licensee in such equity financing(s) are less than or equal to the Qualified Financing Protection Ceiling; provided that if capital stock of Licensee is sold in a single transaction or series of related transactions for different purchase prices and any of such shares of capital stock are included for purposes of determining the number of shares of Qualifying Stock to be issued to COH pursuant to Section 4.3, each share of capital stock that is sold for the lowest purchase price shall be deemed to be have sold first (regardless of the date on which such shares are actually sold) and the next number of shares of capital stock that are sold for the next highest purchase price shall be deemed to have sold next, et cetera, until the Net Proceeds from all such sales (applying all transaction expenses to the first shares issued (except to the extent that such expenses are calculated on a per share basis, such as sales commission, which shall be applied only to the shares included in such calculation) are equal to the Qualified Financing Protection Ceiling.

1.31 "**Qualified Financing Protection Ceiling**" means *.

1.32 "**Qualified Public Offering**" means the first public offering of the Common Stock of Licensee to the general public that is effected pursuant to a registration statement filed with, and declared effective by, the United States Securities and Exchange Commission under the Act, as amended, but, for purposes of clarity shall not include an offering effected pursuant to a registration statement on Form S-8 or any successor form.

1.33 "**Qualifying Stock**" means the sum of: (i) the shares of Class A Common Stock issued and to be issued to COH in accordance with Section 4.3, (ii) the number of shares of Common Stock (excluding (x) the shares referenced in the foregoing subclause (i) and (y) shares issued to employees, directors and consultants in their capacity as such) of Licensee outstanding, and (iii) the maximum number of shares of Common Stock of Licensee issuable (assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability) upon the exercise, conversion or exchange of all evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock of the Licensee, including all rights, options or warrants to subscribe for, purchase or otherwise acquire shares of Common Stock of the Licensee but excluding options and rights granted to employees, directors and consultants in their capacity as such).

*Confidential material redacted and filed separately with the Commission.

1.34 "**Spacer Patent Rights**" means: (i) Patent Cooperation Treaty (PCT) application no. *; (ii) US patent application no. *; (iii) patents, patent applications, continuation and divisional applications and foreign equivalents that claim the same invention(s) and priority date as the foregoing; (iv) continuation-in-part applications that repeat a substantial portion of any of the foregoing applications; (v) Letters Patent or the equivalent issued on any of the foregoing applications throughout the world; (vi) amendments, extensions, renewals, reissues, and re-examinations of any of the foregoing; and (vii) any claim in a patent or patent application licensed to Licensee by COH pursuant to an applicable license agreement that claims (a) a COH CAR, and (b) the spacer, hinge, or linker sequence(s) that is used to connect the * of such COH CAR Covered by a Valid Claim of any of the foregoing (i)–(vii). Notwithstanding the foregoing, "Spacer Patent Rights" shall only include any continuation-in-part application to the extent that claims in such continuation-in-part application are supported in the specification of the parent application, unless otherwise mutually agreed to in writing by the parties to this Agreement.

1.35 "**Sublicensee**" means any Affiliate of Licensee or Third Party which enters into an agreement with Licensee involving the grant to such Affiliate or Third Party of any rights under the license granted to Licensee pursuant to this Agreement.

1.36 "**Sublicense Revenues**" means all consideration, in whatever form, due from a Sublicensee in return for the grant of a sublicense of Licensee's rights hereunder, excluding consideration in the form of: (i) royalties received by Licensee and calculated wholly as a function of sales of Licensed Products or Licensed Services, (ii) payments or reimbursement for documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead), (iii) payment or reimbursement of reasonable patent expenses actually incurred or paid by Licensee and not otherwise reimbursed, or payment of patent expenses required to by paid by Licensee hereunder, (iv) payments for the purchase of equity in Licensee at the fair market value of such equity, and (v) payments recognized as Net Sales under this Agreement for which a royalty is payable to COH. By way of clarification, the principal amount of any loan or other extension of credit provided to Licensee or an Affiliate of Licensee in connection with the grant of a sublicense by Licensee that is other than an arm's-length credit relationship shall be deemed to constitute "Sublicense Revenues."

1.37 "**Territory**" means the entire world.

1.38 "**Third Party**" means a Person that is neither a Party to this Agreement nor an Affiliate of a Party.

1.39 "**Valid Claim**" means a claim of a pending patent application or an issued and unexpired patent included in the Spacer Patent Rights in a particular jurisdiction, which claim has not, in such jurisdiction been finally rejected or been declared invalid or cancelled by the patent office or a court of competent jurisdiction in a decision that is no longer subject to appeal as a matter of right.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 2: DEVELOPMENT AND COMMERCIALIZATION EFFORTS

2.1 **Development and Commercialization Responsibilities**. Licensee shall have the sole right and responsibility for, and control over, all development, manufacturing and commercialization activities (including all regulatory activities) with respect to Licensed Products and Licensed Services in the Field.

2.2 **Licensee Diligence**. Licensee shall use Commercially Reasonable Efforts to develop and commercialize Licensed Products and Licensed Services in the Field, directly or through one or more Sublicensees. Without limiting the foregoing, if Licensee, directly or through one or Sublicensees, fails to accomplish any one of the "**Diligence Milestones**" set forth in this Section 2.2 by the date specified (each a "**Deadline Date**") corresponding to such Diligence Milestone, COH shall have the right, on notice to Licensee, to terminate this Agreement.

"**Deadline Date**"	"**Diligence Milestone**"
1. * (*) * from the Original Effective Date	Licensee to receive not less than $* through any combination of: (i) Net Proceeds from the sale of any equity securities (or securities convertible into or exercisable for equity securities) and (ii) unrestricted grants or gifts.
2. * (*) * from the Original Effective Date	Licensee to * (with COH listed as principal institution for the clinical trial). Licensee may extend this Deadline Date for up to * (*) additional * (*) month periods upon payment of $* to COH, for each * month (*) period.
3. * (*) * from the Original Effective Date	Licensee to * (with COH listed as principal institution for the clinical trial). Licensee may extend this Deadline Date for up to * (*) additional * (*) month periods upon payment of $* to COH for each * month (*) period. If, however, this Diligence Milestone is not achieved after these * (*) extensions through no fault of Licensee, this Diligence Milestone will be additionally extended for as long as the Research Agreement is in effect.

*Confidential material redacted and filed separately with the Commission.

2 . 3 **Governance**. COH and Licensee shall each designate one individual to serve as the main point of contact for communications related to development and commercialization of Licensed Products and Licensed Services under this Agreement (each a "**Designated Representative**"). The initial Designated Representative of COH shall be George Megaw and the initial Designated Representative of Licensee shall be Michael S. Weiss. Each Party may replace its Designated Representative at any time upon prior notice to the other Party. Licensee shall keep COH reasonably informed as to progress in the development and commercialization of Licensed Products and Licensed Services. Without limiting the foregoing, on or before January 15 and July 15 of each year during the term of this Agreement, Licensee shall provide to COH a written report setting forth, in reasonable detail, its activities and achievements with respect to the development and commercialization of Licensed Products and Licensed Services during the preceding six months (the "**Semi-Annual Report**"). Each Semi-Annual Report shall also include the COH reference number, OTL 16-605. The Designated Representatives shall meet in person twice each calendar year to present and discuss the current Semi-Annual Report at such location and date as mutually agreed. Each Party shall be responsible for all expenses incurred by its Designated Representative in the participation in such annual meetings. A copy of each Semi-Annual Report shall be provided, in addition to the persons set forth in Section 14.7, to: The Office of Technology Licensing, email: licensing@coh.org.

ARTICLE 3: LICENSE GRANTS

3 . 1 **Grant of Rights**. COH hereby grants to Licensee an exclusive royalty-bearing right and license under the Spacer Patent Rights to make, have made, use, offer for sale, sell and import Licensed Products and to perform Licensed Services, in the Field, in the Territory. The foregoing grant of rights shall be subject to: (i) the retained rights of the U.S. Government in the Spacer Patent Rights pursuant to 35 U.S.C. §§ 200-212 and applicable U.S. government regulations, (ii) the royalty-free right of COH and its Affiliates to practice the Spacer Patent Rights for educational and research uses, (iii) the right of COH and its Affiliates to publicly disclose research results including, to the extent applicable, as specified in the Research Agreement, and (iv) the right of COH and its Affiliates to allow other non-profit institutions to use the Spacer Patent Rights for the same purposes as (ii) and (iii).

3 . 2 **No Implied Licenses**. Licensee acknowledges that the licenses granted in this Agreement are limited to the scope expressly granted and that, subject to the terms and conditions of this Agreement, all other rights under all Spacer Patent Rights and other intellectual property rights Controlled by COH are expressly reserved to COH.

3 . 3 **Sublicensing**. Licensee shall have the right to sublicense its rights hereunder without the consent of COH, effective on notice to COH. The terms and conditions of each sublicense of Licensee's rights hereunder shall be consistent with this Agreement. A true and complete copy of each sublicense of Licensee's rights hereunder, as well as any amendment thereto, shall be delivered to COH promptly following the effective date of each such sublicense or amendment.

3.4 **Effect of Termination on Sublicenses.**

(a) In the event that this Agreement terminates at any time for any reason, each sublicense validly granted hereunder which is in good standing as of the effective date of such termination shall continue in effect as a direct license between COH (as licensor) and Sublicensee (as licensee), provided that: (i) such sublicense, as determined by COH in its reasonable and good faith discretion, contains or imposes on COH no material obligation or liability additional to those set forth in this Agreement, (ii) the Sublicensee delivers to COH, within thirty (30) days of the effective date of the termination of this Agreement, written acknowledgement that all payment and other obligations previously payable to Licensee under such sublicense shall thereafter be payable and due, and be paid directly to COH, and (iii) such Sublicensee (including its employees and contractors) is not at such time debarred or excluded or otherwise ineligible for participation in federally funded programs. All other sublicenses in existence as of the effective date of the termination of this Agreement which fail to satisfy the foregoing conditions shall, upon such termination, terminate.

(b) Further and in addition to the requirements of Section 3.4(a), above, the conversion of a sublicense into a direct license between COH (as licensor) and Sublicensee (as licensee) upon termination of this Agreement shall require that either [A] or [B] (but not both), below, be satisfied:

[A] On the effective date of the termination of this Agreement:

(i) the Sublicensee is not a party to a proceeding in bankruptcy or insolvency filed by or against such Sublicensee, has not made a general assignment for the benefit of its creditors, and is not in litigation with COH or any Affiliate of COH, ***and***

(ii) (1) the effective royalty rate payable on Sublicensee's Net Sales of Licensed Products and Licensed Services, (2) the aggregate of other non-sale/royalty-based consideration due from Sublicensee, and (3) the other material terms and conditions of the sublicense are materially no less favorable to COH than the corresponding terms (excluding the stock grant due pursuant to Section 4.3, below) of this Agreement, ***or***

[B] the terms and conditions of the sublicense had been approved by COH prior to its having been entered into by Licensee and the Sublicensee, such approval having been considered by COH expeditiously and not conditioned on the payment by Licensee of any additional consideration.

3.5 **Documentation of Licensed Services**. Licensee and its Sublicensees shall provide Licensed Services only pursuant to one or more written agreements which set forth, in reasonable detail, all consideration due to Licensee for the provision of such services. Licensee shall provide a true and complete copy of each such agreement to COH promptly following the effective date of such agreement.

ARTICLE 4: PAYMENTS

4 . 1 **Up-Front Payment**. The Parties acknowledge and agree that the non-refundable license fee of $* payable by Licensee within thirty (30) days after the Original Effective Date pursuant to the Original Agreement has been paid by Licensee as of the A&R Effective Date.

*Confidential material redacted and filed separately with the Commission.

4 . 2 **License Maintenance Fee**. On or before the tenth Business Day after the end of each License Year (excluding the first License Year ending December 31, 2015), Licensee shall pay to COH a non-refundable license maintenance fee of $*. The license maintenance fee paid in a given License Year shall be applied as credit against royalties otherwise due to COH pursuant to Section 4.8, below, during the License Year in which payment was made but may not be carried over and applied as credit against royalties due in subsequent years.

4.3 **Stock Grant**.

(a) Concurrently with the execution of the Original Agreement, Licensee issued to COH stock certificates evidencing 333,333 validly issued, fully-paid, non-assessable shares of Class A Common Stock. At the closing of each Qualified Financing that occurs prior to the achievement of the Qualified Financing Protection Ceiling, Licensee will issue to COH and such reasonable number of designees as COH may specify (provided that each such designee has: (i) demonstrated to the reasonable satisfaction of Licensee that it is an "accredited investor" as such term is defined in Regulation D promulgated under the Securities Act of 1933 (the "**Act**"), (ii) represented to Licensee that it is acquiring the shares for investment purposes only, and (iii) acknowledged that the shares to be received are restricted securities under the Act (COH and its designees collectively, the "**COH Stockholders**"), stock certificates evidencing a number of shares of validly issued, fully-paid, non-assessable shares of Class A Common Stock that is determined such that upon the completion of such issuance, COH and its designees will hold 10% of the total number of shares of Qualifying Stock, calculated as of immediately after the closing of such Qualified Financing (the "**Measurement Date**"). Promptly after the applicable Measurement Date, Licensee will deliver to the COH Stockholders (i) certificates representing the shares of Class A Common Stock to be issued in accordance with the foregoing, and (ii) a certificate, executed on behalf of Licensee by an executive officer of Licensee, showing Licensee's calculation of the number of shares of Qualifying Stock as of the Measurement Date, the sales price of each share of capital stock issued in the Qualified Financings, and the gross proceeds and Net Proceeds of the Qualified Financings and Licensee's calculation of the shares of Class A Common Stock to be issued to the COH Stockholders. Such shares of Class A Common Stock will be issued in consideration for the benefits provided to Licensee under the Agreement and no additional consideration shall be payable for such shares of Class A Common Stock.

(c) COH and the other COH Stockholders acknowledge and agree that the COH Shares are restricted securities and will not be registered with the Securities and Exchange Commission or qualified with any state securities authority and that, accordingly, the COH Shares may not be distributed, sold or otherwise transferred except pursuant to an effective registration statement under the Act or pursuant to an available exemption from the registration requirements of the Act.

4.4 **First Public Offering Fee**. At the closing of the first Qualified Public Offering of stock of Licensee, Licensee shall pay COH a one-time non-refundable fee of $*.

4.5 **Sale of Business**. Upon any Change in Control of Licensee, Licensee shall pay COH a non-refundable fee of $*.

4.6 [Reserved]

*Confidential material redacted and filed separately with the Commission.

4.7 **Royalties**.

(a) Subject to Section 4.8 below, Licensee shall pay to COH or its designee royalties in an amount equal to * percent of Net Sales of Licensed Products and Licensed Services that do not include a COH CAR. Royalties shall be paid on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service, and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims in such country Covering Licensed Products or Licensed Services.

(b) Subject to Section 4.8 below, Licensee shall pay to COH or its designee royalties in an amount equal to * percent of Net Sales of Licensed Products and Licensed Services that include a COH CAR. Royalties shall be paid on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service, and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims in such country Covering Licensed Products or Licensed Services.

4.8 **Royalty Offsets**.

4 . 8 . 1 Third Parties. If, in Licensee's reasonable business judgment it is necessary to pay to a Third Party other than a Sublicensee consideration (whether in the form of a royalty or otherwise) for the right to make, have made, use, sell, offer for sale or import a Licensed Product or Licensed Service in a given jurisdiction, and if the aggregate royalty rates of any and all royalties payable to such Third Party licensors when combined with the royalty rate payable to COH exceeds percent in the case of Net Sales of Licensed Products or Licensed Services, then Licensee shall have the right with respect to any period for which royalties are due (*i.e.,* a calendar quarter or calendar year) to set off percent of the aggregate royalties otherwise payable with respect to such period and such jurisdiction to such Third Party licensors against royalties that would otherwise be due to COH hereunder with respect to such period and jurisdiction; provided, however, that each Third Party licensor agrees to be stacked proportionally; and provided further, however, that under no circumstances shall the royalty offsets permitted in this Section 4.8 result in the reduction of the effective adjusted royalty rate and the royalty amount otherwise due to COH in any period for which payment is due and in any jurisdiction pursuant to Section 4.7, above, by more than percent (*e.g*., minimum effective adjusted royalty rate for Net Sales of Licensed Product or Licensed Services that do not include a COH CAR shall be percent).

4.8.2 A&R IL13 License and A&R CD123 License. The Parties agree that, under certain circumstances and pursuant to the A&R IL13 License and the A&R CD123 License, the Licensee may set off the royalties due to COH by Licensee pursuant to Section 4.7(b) of this Agreement against the royalties due to COH by Licensee pursuant to Section 4.8 of the A&R IL13 License or the A&R CD123 License, as applicable.

*Confidential material redacted and filed separately with the Commission.

4.9 **Sublicense Revenues**.

4.9.1 Licensee shall pay to COH an amount equal to percent of all Sublicense Revenues within thirty (30) days after payment is received from the relevant Sublicensee. If Sublicense Revenues are not in cash or cash equivalents, the percentage share payable to COH pursuant to this Section 4.9.1 shall be due, in COH's sole discretion, either in kind or in its cash equivalent.

4.9.2 In the event that Licensee sublicenses its rights hereunder solely for use by such sublicensee in connection with a CAR that is, as of the Effective Date or as of the date of execution of such sublicense, a COH CAR, either directly or indirectly pursuant to an applicable license or sublicense agreement (each, a "**COH CAR License**"), Licensee shall only be required to pay to COH a percentage of sublicensing revenues pursuant to the applicable COH CAR License, if any, and shall not be required to make additional payments pursuant to Section 4.9.1 of this Agreement; provided, that the sublicensee shall only receive a license to use the rights granted hereunder in connection with the applicable COH CAR. COH will determine, for purposes of Licensee invoicing, the allocation of sublicensing revenues among this Agreement and the applicable COH CAR Licenses at a time when a payment pursuant to this Section 4.9.2 is due and shall inform Licensee in writing of the determination at such time.

4.10 **Timing of Royalty Payments**. Royalty payments due under Section 4.8, above, shall be paid annually within sixty (60) days following the end of each License Year until the first License Year in which aggregate Net Sales reach $*. Thereafter, all royalty payments due under Section 4.8 shall be paid in quarterly installments, within sixty (60) days following the end of each calendar quarter.

4.11 **No Deductions from Payments**. Licensee is solely responsible for payment of any fee, royalty or other payment due to any Third Party not a Sublicensee in connection with the research, development, manufacture, distribution, use, sale, import or export of a Licensed Product or Licensed Service and, except as set forth in Section 4.8, above, Licensee shall not have the right to set off any amounts paid to such a Third Party, including fee, royalty or other payment, against any amount payable to COH hereunder.

4.12 **Single Royalty**. Only a single royalty payment shall be due and payable on Net Sales of a Licensed Product or performance of a Licensed Service, regardless if such Licensed Product or Licensed Service is Covered by more than one Valid Claim.

ARTICLE 5: REPORTS, AUDITS AND FINANCIAL TERMS

5.1 **Royalty Reports**. Within sixty (60) days after the end of each calendar quarter in which a royalty payment under Article 4 is required to be made, Licensee shall send to COH a report of Net Sales of the Licensed Products and Licensed Services for which a royalty is due, which report sets forth for such calendar quarter the following information, on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service and country-by-country basis: (i) total Net Sales, (ii) total gross sales of Licensed Products and Licensed Services, (iii) the quantity of each Licensed Products sold and Licensed Services performed, (iv) the exchange rate used to convert Net Sales from the currency in which they are earned to United States dollars; and (v) the total royalty payments due. All royalty reports shall also include the COH reference number, OTL 16-605. A copy of each royalty report shall be provided, in addition to the persons set forth in Section 14.7, to: The Office of Technology Licensing, email: otl-royalties@coh.org.

*Confidential material redacted and filed separately with the Commission.

5.2 **Additional Financial Terms**.

5.2.1 **Currency**. All payments to be made under this Agreement shall be made in United States dollars, unless expressly specified to the contrary herein. Net Sales outside of the United States shall be first determined in the currency in which they are earned and shall then be converted into an amount in United States dollars. All currency conversions shall use the conversion rate reported by Reuters, Ltd. on the last Business Day of the calendar quarter for which such payment is being determined.

5.2.2 **Payment Method**. Amounts due under this Agreement shall be paid in immediately available funds, by means of wire transfer to an account identified by COH.

5.2.3 **Withholding of Taxes**. Licensee may withhold from payments due to COH amounts for payment of any withholding tax that is required by law to be paid to any taxing authority with respect to such payments. Licensee shall provide to COH all relevant documents and correspondence, and shall also provide to COH any other cooperation or assistance on a reasonable basis as may be necessary to enable COH to claim exemption from such withholding taxes and to receive a full refund of such withholding tax or claim a foreign tax credit. Licensee shall give COH proper evidence from time to time as to the payment of such tax. The Parties shall cooperate with each other in seeking deductions under federal and state tax laws and any double taxation or other similar treaty or agreement from time to time in force.

5.2.4 **Late Payments**. Any amounts not paid on or before the date due under this Agreement are subject to interest from the date due through and including the date upon which payment is received. Interest is calculated, over the period between the date due and the date paid, at a rate equal to * percentage point (*%) over the "bank prime loan" rate, as such rate is published in the U.S. Federal Reserve Bulletin H.15 or successor thereto on the last Business Day of the applicable calendar quarter prior to the date on which such payment is due.

5.2.5 **Blocked Currency**. If, at any time, legal restrictions prevent the prompt remittance of part or all royalties with respect to any country where a Licensed Product is sold or Licensed Service provided, payment shall be made through such lawful means or methods as Licensee may determine. When in any country, the law or regulations prohibit both the transmittal and deposit of royalties or other payments, Licensee shall continue to report all such amounts, but may suspend payment for as long as such prohibition is in effect. As soon as such prohibition ceases to be in effect, all amounts that would have been obligated to be transmitted or deposited but for the prohibition, together with accrued interested thereon, shall promptly be transmitted to COH.

5.3 **Accounts and Audit**.

*Confidential material redacted and filed separately with the Commission.

5.3.1 **Records**. Licensee shall keep, and shall require that each Sublicensee keep, full, true and accurate books of account containing the particulars of its Net Sales and the calculation of royalties. Licensee and its Sublicensees shall each keep such books of account and the supporting data and other records at its principal place of business. Such books and records must be maintained available for examination in accordance with this Section 5.3.1 for five calendar years after the end of the calendar year to which they pertain, and otherwise as reasonably required to comply with GAAP.

5.3.2 **Appointment of Auditor**. COH may appoint an internationally- recognized independent accounting firm reasonably acceptable to Licensee to inspect the relevant books of account of Licensee and its Sublicensees to verify any reports or statements provided, or amounts paid or invoiced (as appropriate), by Licensee or its Sublicensees.

5.3.3 **Procedures for Audit**. COH may exercise its right to have Licensee's and its Sublicensees' relevant records examined only during the five year period during which Licensee is required to maintain records, no more than once in any consecutive four calendar quarters. Licensee and its Sublicensees are required to make records available for inspection only during regular business hours, only at such place or places where such records are customarily kept, and only upon receipt of at least 15 days advance notice from COH.

5.3.4 **Audit Report**. The independent accountant will be instructed to provide to COH an audit report containing only its conclusions and methodology regarding the audit, and specifying whether the amounts paid were correct and, if incorrect, the amount of any underpayment or overpayment.

5.3.5 **Underpayment and Overpayment**. After review of the auditor's report: (i) if there is an uncontested underpayment by Licensee for all of the periods covered by such auditor's report, then Licensee shall pay to COH the full amount of that uncontested underpayment, and (ii) if there is an uncontested overpayment for such periods, then COH shall provide to Licensee a credit against future payments (such credit equal to the full amount of that overpayment), or, if Licensee is not obligated to make any future payments, then COH shall pay to Licensee the full amount of that overpayment. Contested amounts are subject to dispute resolution under Article 12. If the total amount of any such underpayment (as agreed to by Licensee or as determined under Article 12) exceeds * percent of the amount previously paid by Licensee for the period subject to audit, then Licensee shall pay the reasonable costs for the audit. Otherwise, all costs of the audit shall be paid by COH.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 6: LICENSEE COVENANTS

6.1 Licensee covenants and agrees that:

(a) During the period commencing on the Original Effective Date and ending on the third (3rd) anniversary of the Original Effective Date, both Dr. Lindsay A. Rosenwald and Michael S. Weiss will hold senior management positions of Licensee; provided, that, in the event of a Change of Control of Licensee, subsequent to such Change of Control, in the event that either Dr. Lindsay A. Rosenwald or Michael S. Weiss no longer holds a senior management position of Licensee both individuals must remain materially involved with the oversight and management of the development of Licensed Products during such period; provided further that in the event of the death of either of Dr. Rosenwald or Mr. Weiss, Licensee will be excused from observing this Section 6.1(a) with regard to the decedent;

(b) the Charter provides, and any amendment thereto will provide the holders of Class A Shares with the right to nominate one individual to the board of directors of Licensee for a period of ten years after the formation of Licensee;

(c) in conducting activities contemplated under this Agreement, it shall comply in all material respects with all applicable laws and regulations including, without limitation, those related to the manufacture, use, labeling importation and marketing of Licensed Products and Licensed Services; and

(d) Licensee had obtained and after the date hereof will obtain all authorizations necessary for the issuance of the COH Shares and the Common Stock issuable to COH upon conversion of the COH Shares issuable pursuant to this Agreement and/or the Charter prior to the issuance of such COH Shares and in any event prior to the issuance of any Qualifying Stock or the consummation of a Change of Control and covenants that all such shares issued on or prior to the date hereof are, and those issued after the date hereof will be, validly issued, fully paid and non-assignable and free of restrictions on transfer, other than restrictions on transfer under state and federal securities laws.

ARTICLE 7: INTELLECTUAL PROPERTY; PATENT PROSECUTION, MAINTENANCE AND ENFORCEMENT.

7.1 **Patent Prosecution, Maintenance and Enforcement**.

(a) COH shall be responsible for the preparation, filing, prosecution, and maintenance of all Spacer Patent Rights, using counsel of its choice. COH will timely provide Licensee with copies of all relevant documentation relating to such prosecution and Licensee shall keep such information confidential. In addition, COH shall instruct the patent counsel prosecuting Spacer Patent Rights to (i) copy Licensee on patent prosecution documents that are received from or filed with the United States Patent and Trademark Office and foreign equivalent, as applicable; (ii) if requested by Licensee, provide Licensee with copies of draft submissions to the USPTO prior to filing; and (iii) give reasonable consideration to the comments and requests of Licensee or its patent counsel, provided that (a) COH reserves the sole right to make all final decisions with respect to the preparation, filing, prosecution and maintenance of such patent applications and patents; and (b) the patent counsel remains counsel to COH (and shall not jointly represent Licensee unless requested by Licensee and approved by COH, and an appropriate engagement letter and conflict waiver are in effect). All patents and patent applications in Spacer Patent Rights, to the extent assignable in whole or in part to COH, shall be assigned to COH.

(b) COH will not unreasonably refuse to amend any patent application in Spacer Patent Rights to include claims reasonably requested by Licensee to protect the products contemplated to be sold by Licensee under this Agreement. If Licensee informs COH of other countries or jurisdictions in which it wishes to obtain patent protection with respect to the Spacer Patent Rights, COH shall prepare, file, prosecute and maintain patent applications in such counties and any patents resulting therefrom (and, for the avoidance of doubt, such patent applications and patents shall be deemed included in the Spacer Patent Rights). On a country by country and patent by patent basis, Licensee may elect to surrender any patent or patent application in Spacer Patent Rights in any country upon sixty (60) days advance written notice to COH. Such notice shall relieve Licensee from the obligation to pay for future patent costs but shall not relieve Licensee from responsibility to pay patent costs incurred prior to the expiration of the sixty (60) day notice period. Such U.S. or foreign patent application or patent shall thereupon cease to be a Spacer Patent Right hereunder, Licensee shall have no further rights therein and COH shall be free to license its rights to that particular U.S. or foreign patent application or patent to any other party on any terms.

(c) Each Party shall promptly provide written notice to the other in the event it becomes aware of any actual or probable infringement of any of the Spacer Patent Rights in or relevant to the Field or of any Third Party claim regarding the enforceability or validity of any Spacer Patent Rights ("**Infringement Notice**"). Licensee shall, in cooperation with COH, use reasonable efforts to terminate infringement without litigation.

(d) If infringing activity has not been abated within ninety (90) days following the date the Infringement Notice takes effect, then Licensee may, following consultation with COH, in its sole discretion and at its sole expense, take action against any alleged infringer or in defense of such any claim, provided, that Licensee has exclusive rights under this Agreement. Any recovery obtained by Licensee as the result of legal proceedings initiated and paid for by Licensee pursuant to this subsection (d), after deduction of Licensee's reasonable out-of-pocket expenses incurred in securing such recovery, shall be deemed to be Net Sales of Licensed Products and/or Licensed Services in the calendar quarter in which such recovery was received and royalties shall be due and payable thereon accordingly.

(e) If COH is involuntarily joined in a suit initiated by Licensee, then the Licensee will pay any costs incurred by COH arising out of such suit, including but not limited to, reasonable legal fees of counsel that COH selects and retains to represent it in the suit.

(f) In the event that Licensee declines either to cause such infringement to cease (*e.g.*, by settlement or injunction) or to initiate and thereafter diligently maintain legal proceedings against the infringer other than as part of a mutually agreed upon bona fide strategy, developed with the guidance of outside patent counsel, to preserve the Spacer Patent Rights, COH may, in its sole discretion and at its sole expense, take action against such alleged infringer or in defense of any such Third Party claim. Any recovery obtained by COH as the result of any such legal proceedings shall be for the benefit of COH only.

7.2 **Trademarks**. Licensee shall be responsible for the selection, registration, maintenance, and defense of all trademarks for use in connection with the sale or marketing of Licensed Products and Licensed Services in the Field in the Territory (the "**Marks**"), as well as all expenses associated therewith. All uses of the Marks by Licensee or a Sublicensee shall comply in all material respects with all applicable laws and regulations (including those laws and regulations particularly applying to the proper use and designation of trademarks in the applicable countries). Licensee shall not, without COH's prior written consent, use any trademarks or house marks of COH (including the COH corporate name), or marks confusingly similar thereto, in connection with Licensee commercialization of Licensed Products or Licensed Services under this Agreement in any promotional materials or applications or in any manner implying an endorsement by COH of Licensee or the Licensed Products or Licensed Services. Licensee shall own all Marks.

7.3 **Challenge to the Spacer Patent Rights by Licensee**.

(a) COH may terminate this Agreement and, notwithstanding Section 3.3, above, all Sublicenses issued hereunder, upon written notice to Licensee in the event that Licensee or any of its Affiliates or Sublicensees directly or indirectly asserts a Patent Challenge. "**Patent Challenge**" means any challenge in a legal or administrative proceeding to the patentability, validity or enforceability of any of the Spacer Patent Rights (or any claim thereof), including by: (a) filing or pursuing a declaratory judgment action in which any of the Spacer Patent Rights is alleged to be invalid or unenforceable; (b) citing prior art against any of the Spacer Patent Rights, filing a request for or pursuing a re-examination of any of the Spacer Patent Rights (other than with COH's written agreement), or becoming a party to or pursuing an interference; or (c) filing or pursuing any re-examination, opposition, cancellation, nullity or other like proceedings against any of the Spacer Patent Rights; but excluding any challenge raised as a defense against a claim, action or proceeding asserted by COH against Licensee, its Affiliates or Sublicensees. In lieu of exercising its rights to terminate under this Section 7.3(a) COH may elect upon written notice to increase the payments due under all of Section 4 by * percent (*%), which election will be effective retroactively to the date of the commencement of the Patent Challenge. Licensee acknowledges and agrees that this Section 7.3(a) is reasonable, valid and necessary for the adequate protection of COH's interest in and to the Spacer Patent Rights, and that would not have granted to Licensee the licenses under those Spacer Patent Rights, without this Section.

(b) **Payment of COH Patent Expenses**. The Parties acknowledge that, prior to the Original Effective Date, COH provided to Licensee documentation of historic expenses incurred by COH with respect to the drafting, prosecution and maintenance of the Spacer Patent Rights. In consideration of such historic expenditures by COH, the Parties acknowledge and agree that Licensee has reimbursed COH for such expenses within thirty (30) days of the Original Effective Date.

(c) After the Original Effective Date, COH shall provide to Licensee an annual invoice and reasonably detailed documentation with respect to COH's out-of-pocket expenses incurred with respect to such prosecution and maintenance for the previous year. Licensee shall reimburse COH for * percent of such expenses within thirty (30) days after receipt of such invoice and documentation.

7.4 **Marking**. Licensee and its Sublicensees shall mark all Licensed Products and all materials related to Licensed Services in such a matter as to conform with the patent laws of the country to which such Licensed Products are shipped or in which such products are sold and such Licensed Services performed.

*Confidential material redacted and filed separately with the Commission.

ARTICLE 8: TERM AND TERMINATION

8.1 **Term and Expiration of Term**. The term of this Agreement (the "**Term**") shall commence on the A&R Effective Date and, notwithstanding any other provision of this Agreement, unless sooner terminated by mutual agreement or pursuant to any other provision of this Agreement, this Agreement shall expire on a country-by-country basis and on a Spacer Patent Right-by- Spacer Patent Right basis on the later to occur of: (a) the expiration of the last to expire of any of the Spacer Patent Rights in such country (or if no patent issues, until the last patent application in Spacer Patent Rights is abandoned), and (b) the date on which the last of the remaining obligations under this Agreement between the Parties with respect to the payment of royalties with respect to Licensed Products and Licensed Services have been satisfied (such expiry of the Term hereinafter referred to as "**Expiration**").

8.2 **Termination**.

8.2.1 **Material Breach**. Either Party may terminate this Agreement prior to its Expiration for any material breach by the other Party, provided, that, the Party seeking to terminate shall have first given the breaching Party notice of such material breach with reasonable particulars of the material breach, and the Party receiving the notice of the material breach shall have failed to cure that material breach within thirty (30) days after the date of receipt of such notice.

8.2.2 **Bankruptcy**. COH shall have the right to terminate this Agreement prior to its Expiration upon notice to Licensee, in the event that: (i) Licensee seeks protection of any bankruptcy or insolvency law other than with the prior consent of City of Hope, or (ii) a proceeding in bankruptcy or insolvency is filed by or against Licensee and not withdrawn, removed or vacated within 120 days of such filing, or there is adjudication by a court of competent jurisdiction that Licensee is bankrupt or insolvent.

8.2.3 **Termination at Will by Licensee**. Licensee shall have the right to terminate this Agreement prior to its Expiration upon notice to COH without cause, effective no fewer than 90 days following the date of such notice.

8.3 **Effect of Termination**.

8.3.1 Upon any termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), all rights and licenses granted to Licensee under Article 4, if any, shall immediately terminate on and as of the effective date of termination as provided in Section 8.2, except that Licensee shall have the right to continue to sell Licensed Products manufactured prior to the effective date of such termination until the sooner of: (i) ninety (90) days after the effective date of termination, or (ii) the exhaustion of Licensee's inventory of Licensed Products.

8.3.2 Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration):

(a) Each Party shall promptly return to the other Party all relevant records and materials in its possession or control containing or comprising the other Party's Confidential Information and to which the Party does not retain rights hereunder.

(b) Licensee shall discontinue making any representation regarding its status as a licensee of COH for Licensed Products and Licensed Services. Subject to Section 8.3.1, above, Licensee shall cease conducting any activities with respect to the marketing, promotion, sale or distribution of Licensed Products and Licensed Services.

8.3.3 Termination of this Agreement through any means and for any reason pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), shall not relieve the Parties of any obligation accruing prior thereto, including the payment of all sums due and payable, and shall be without prejudice to the rights and remedies of either Party with respect to any antecedent breach of any of the provisions of this Agreement.

8 . 4 **Survival**. Sections 4.11, 5.1, 5.2, 5.3, 7.4, 8.3, 8.4, Article 10, Article 11, Article 12, Sections 14.2, 14.4, 14.7, and 14.10 shall survive termination of this Agreement for any reason pursuant to Section 8.2 and Expiration pursuant to Section 8.1.

ARTICLE 9: REPRESENTATIONS AND WARRANTIES

9.1 **Mutual Representations and Warranties**. COH and Licensee each represents and warrants as follows:

9.1.1 It has the right and authority to enter into this Agreement and all action required to be taken on its behalf, its officers, directors, partners and stockholders necessary for the authorization, execution, and delivery of this Agreement and, the performance of all of its obligations hereunder, and this Agreement, when executed and delivered, will constitute valid and legally binding obligations of such Party, enforceable in accordance with its terms, subject to: (i) laws limiting the availability of specific performance, injunctive relief, and other equitable remedies; and (ii) bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights generally;

9.1.2 Entry into this Agreement will not constitute a breach of any other agreement to which it is party;

9.1.3 It has read this Agreement, with assistance from its counsel of choice. It understands all of this Agreement's terms. It has been given a reasonable amount of time to consider the contents of this Agreement before each Party executed it. It agrees that it is executing this Agreement voluntarily with full knowledge of this Agreement's legal significance; and

9.1.4 It has made such investigation of all matters pertaining to this Agreement that it deems necessary, and does not rely on any statement, promise, or representation, whether oral or written, with respect to such matters other than those expressly set forth herein. It agrees that it is not relying in any manner on any statement, promise, representation or understanding, whether oral, written or implied, made by any Party, not specifically set forth in this Agreement. It acknowledges that, after execution of this Agreement, it may discover facts different from or in addition to those which it now knows or believes to be true. Nevertheless, it agrees that this Agreement shall be and remain in full force and effect in all respects, notwithstanding such different or additional facts.

9.2 **Representations and Warranties of COH**. COH represents and warrants that, as of the Original Effective Date, to the actual knowledge of the Investigator (as defined in the Research Agreement) and the Director of its Office of Technology Transfer without independent inquiry, COH has the full power and authority to grant the rights, licenses and privileges granted herein.

9.3 **Representations and Warranties of Licensee**. Licensee represents and warrants as of the Original Effective Date (except as specifically provided below) and as of the A&R Effective Date (except as specifically provided below):

9.3.1 all authorizations necessary for the issuance of the COH Shares and the Common Stock issuable to COH upon conversion of the COH have been obtained;

9.3.2 no consent, approval, order, or authorization of, or registration, qualification, designation, declaration, or filing with, any federal, state, or local governmental authority on the part of Licensee was required in connection with the offer, sale, or issuance of the COH Shares (and the Common Stock issuable upon conversion of the COH Shares) or the consummation of any other transaction contemplated hereby, except for the following: (i) the filing of a notice of exemption pursuant to Section 25102(f) of the California Corporate Securities Law of 1968, as amended, which was filed by Licensee promptly following the Original Effective Date and promptly following any Measurement Date; and (ii) the compliance with other applicable state securities laws, which compliance has occurred or will occur within the appropriate time periods therefor. The offer, sale, and issuance of the COH Shares are exempt from the registration requirements of Section 5 of the Act, and from the qualification requirements of Section 25110 of the California Securities Law, and neither Licensee, nor any authorized agent acting on its behalf has taken or will take any action hereafter that results in the loss of such exemptions;

9.3.3 The sale of the COH Shares was not, and the subsequent conversion of the COH Shares into Common Stock will not be , subject to any preemptive rights or rights of first refusal that have not been properly waived or complied with;

9.3.4 The COH Shares, when issued, sold and delivered in accordance with the terms of the Original Agreement or this Agreement for the consideration expressed therein, were and will be duly and validly issued, fully paid and nonassessable and free of restrictions on transfer, other than restrictions on transfer under applicable state and federal securities laws. The Common Stock issuable upon conversion of the COH Shares has been duly and validly reserved for issuance and, upon issuance in accordance with the terms of the Charter, will be duly and validly issued, fully paid and nonassessable and free of restrictions on transfer other than restrictions on transfer under applicable state and federal securities laws.

9.3.5 As of the A&R Effective Date, the authorized capital stock of Licensee consists of (i) 50,000,000 shares of Common Stock (24,209,025[1] of which shall be issued and outstanding after giving effect to the issuances contemplated hereunder); of which 1,000,000 shares were designated as Class A Common Stock (1,000,000 of which are issued and outstanding (taking into account the issuance of the COH Shares of Class A Common Stock pursuant to the Original Agreement)), and (ii) 2,000,000 shares of preferred stock, 250,000 of which are designated as Series A Preferred Stock (250,000 of which are issued and outstanding). As of the A&R Effective Date there are outstanding warrants exercisable for 4,239,396 shares of Common Stock at an exercise price of $8.50 per share and 138,462 shares of Common Stock at an exercise price of $0.0001. As of the A&R Effective Date, Licensee has also reserved but has not issued an aggregate of 2,000,000 shares of Common Stock for issuance to employees, directors and consultants pursuant to Licensee's equity incentive compensation plans. As of the A&R Effective Date, all issued and outstanding shares were duly authorized and validly issued and were fully paid and nonassessable. Other than as provided in this Section 9.3.5, or pursuant to litigation as described in the Company's filings with the Securities and Exchange Commission prior to the date hereof, there are no other outstanding rights, options, warrants, preemptive rights, rights of first refusal, or similar rights for the purchase or acquisition from Licensee of any securities of Licensee nor any commitments to issue or execute any such rights, options, warrants, preemptive rights or rights of first refusal. The respective rights, preferences, privileges, and restrictions of the Common Stock, including the Class A Common Stock and the preferred stock are solely as stated in the Charter. As of the Original Effective Date, the COH Shares represented a 10% interest in the capital stock of Licensee; and

9.3.6 Licensee is not in violation or default of any provision of the Charter or its bylaws.

9.4 **Exclusions**. Nothing in this Agreement is or shall be construed as:

9.4.1 A warranty or representation by COH as to the validity or scope of any claim or patent or patent application within the Spacer Patent Rights;

9.4.2 A warranty or representation by COH that anything made, used, sold, or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of any patent rights or other intellectual property right of any Third Party;

9.4.3 A grant by COH, whether by implication, estoppel, or otherwise, of any licenses or rights under any patents other than Spacer Patent Rights as defined herein, regardless of whether such patents are dominant or subordinate to Spacer Patent Rights;

9.4.4 An obligation on COH to bring or prosecute any suit or action against a third party for infringement of any of the Spacer Patent Rights;

9.4.5 An obligation to furnish any know-how not provided in Spacer Patent Rights; or

9.4.6 A representation or warranty of the ownership of the Spacer Patent Rights other than as set forth in Section 9.2, above.

[1] To be confirmed by Mustang

9.5 **DISCLAIMER**. **NO WARRANTY IS GIVEN WITH RESPECT TO THE SPACER PATENT RIGHTS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND THE PARTIES SPECIFICALLY DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF THE SPACER PATENT RIGHTS OR NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY OR OTHER RIGHTS OF ANY THIRD PARTY. THE WARRANTIES SET FORTH IN SECTIONS 9.1 AND 9.2, ABOVE, ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, VALIDITY, NON-INFRINGEMENT AND ALL SUCH OTHER WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.**

ARTICLE 10: INDEMNIFICATION

10.1 **Indemnification by Licensee**. Licensee shall defend, indemnify and hold harmless COH, its Affiliates, officers, directors, shareholders, employees and agents ("**COH Indemnitees**") from and against any and all Third Party liabilities, claims, suits, and expenses, including reasonable attorneys' fees (collectively, "**Losses**"), arising out of or are in any way attributable to: (i) the material breach of any representation or warranty made by Licensee under this Agreement, (ii) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee, any of its Affiliates or a Sublicensee or any other exercise of rights under this Agreement or pursuant to any sublicense, or (iii) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or Sublicensee; in each case except to the extent that such Losses are caused directly by: (a) COH's material breach of any representation or warranty made by COH under this Agreement, (b) COH's material breach of its obligations under this Agreement, and/or (c) the gross negligence or willful misconduct of a COH Indemnitee.

10.2 **Indemnification by COH**. COH shall defend, indemnify and hold harmless Licensee and its Affiliates and their respective officers, directors, shareholders, employees and agents (collectively, the "**Licensee Indemnitees**") from and against any and all Losses caused directly by: (i) the material breach of any representation or warranty made by COH under this Agreement, or (ii) the gross negligence or willful misconduct of a COH Indemnitee, except to the extent that such Losses arise out of or are in any way attributable to: (a) the material breach of any representation or warranty made by Licensee under this Agreement, (b) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee or a Sublicensee, or (c) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or a Sublicensee.

10.3 **Procedure**. The indemnities set forth in this Article 10 are subject to the condition that the Party seeking the indemnity shall forthwith notify the indemnifying Party on being notified or otherwise made aware of a liability, claim, suit, action or expense and that the indemnifying Party defend and control any proceedings with the other Party being permitted to participate at its own expense (unless there shall be a conflict of interest which would prevent representation by joint counsel, in which event the indemnifying Party shall pay for the other Party's counsel); provided, that, the indemnifying Party may not settle the liability, claim, suit, action or expense, or otherwise admit fault of the other Party or consent to any judgment, without the written consent of the other Party (such consent not to be unreasonably withheld). Notwithstanding the foregoing, no delay in the notification of the existence of any claim of Loss shall cause a failure to comply with this Section 10.3 as long as such delay shall not have materially impaired the rights of the indemnifying Party.

10.4 **Insurance**.

(a) Within thirty (30) days following the Effective Date, Licensee shall procure at its sole expense and provide to COH evidence of comprehensive or commercial general liability insurance (contractual liability included) with limits of at least: (i) each occurrence, $*; (ii) products/completed operations aggregate, $*; (iii) personal and advertising injury, $*; and general aggregate (commercial form only), $*.

(b) The foregoing policies will provide primary coverage to COH and shall name the COH Indemnitees as additional insureds, and shall remain in effect during the term of this Agreement and for * years following the termination or expiration of the term of this Agreement. The COH Indemnitees shall be notified in writing by Licensee not less than thirty (30) days prior to any modification, cancellation or non-renewal of such policy. Licensee's insurance must include a provision that the coverages will be primary and will not participate with nor will be excess over any valid and collective insurance or program of self-insurance carried or maintained by the COH Indemnitees. Such insurance coverage shall be maintained with an insurance company or companies having an A.M. Best's rating (or its equivalent) of A-XII or better.

(c) Licensee expressly understands that the coverage limits in Section 10.4(a) do not in any way limit the Licensee's liability.

10.5 **LIMITATION ON DAMAGES**. **NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY, EXCEPT IN RELATION TO LICENSEE'S INDEMNIFICATION OBLIGATIONS UNDER SECTION 10.1 AND ANY BREACH BY LICENSEE OF ARTICLE 11: (I) IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, PUNITIVE, CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS, LOST BUSINESS OR ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT) WHETHER BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR ANY OTHER LEGAL THEORY, AND (II) IN NO EVENT SHALL COH BE LIABLE TO LICENSEE FOR AN AGGREGATE AMOUNT IN EXCESS OF TWO-THIRDS OF THE TOTAL CONSIDERATION PAID TO COH HEREUNDER.**

*Confidential material redacted and filed separately with the Commission.

ARTICLE 11: CONFIDENTIALITY

11.1 **Confidential Information**. During the term of this Agreement and for * (*) years thereafter without regard to the means of termination: (i) COH shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose to any Third Party Licensee Confidential Information; and (ii) Licensee shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose COH Confidential Information to any Third Party. The Parties shall take reasonable measures to assure that no unauthorized use or disclosure is made by others to whom access to such information is granted.

11.2 **Exceptions**. Notwithstanding the foregoing, a Party may use and disclose Confidential Information of the other Party as follows:

(a) if required by applicable law, rule, regulation, government requirement and/or court order, provided, that, the disclosing Party promptly notifies the other Party of its notice of any such requirement and provides the other Party a reasonable opportunity to seek a protective order or other appropriate remedy and/or to waive compliance with the provisions of this Agreement;

(b) to the extent such use and disclosure occurs in the filing or publication of any patent application or patent on inventions;

(c) as necessary or desirable for securing any regulatory approvals, including pricing approvals, for any Licensed Products or Licensed Services, provided, that, the disclosing Party shall take all reasonable steps to limit disclosure of the Confidential Information outside such regulatory agency and to otherwise maintain the confidentiality of the Confidential Information;

(d) to take any lawful action that it deems necessary to protect its interest under, or to enforce compliance with the terms and conditions of, this Agreement;

(e) to the extent necessary, to its Affiliates, directors, officers, employees, consultants, vendors and clinicians under written agreements of confidentiality at least as restrictive as those set forth in this Agreement, who have a need to know such information in connection with such Party performing its obligations or exercising its rights under this Agreement; and

(f) by Licensee, to actual and potential investors, licensees, Sublicensees, consultants, vendors and suppliers, and academic and commercial collaborators, under written agreements of confidentiality at least as restrictive as those set forth in this Agreement.

11.3 **Certain Obligations**. During the Term and for a period of * (*) years thereafter and subject to the exceptions set forth in Section 11.2, Licensee, with respect to COH Confidential Information, and COH, with respect to Licensee Confidential Information, agree:

*Confidential material redacted and filed separately with the Commission.

(a) to use such Confidential Information only for the purposes contemplated under this Agreement,

(b) to treat such Confidential Information as it would its own proprietary information which in no event shall be less than a reasonable standard of care,

(c) to take reasonable precautions to prevent the disclosure of such Confidential Information to a Third Party without written consent of the other Party, and

(d) to only disclose such Confidential Information to those employees, agents and Third Parties who have a need to know such Confidential Information for the purposes set forth herein and who are subject to obligations of confidentiality no less restrictive than those set forth herein.

11.4 **Termination**. Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), and upon the request of the disclosing Party, the receiving Party shall promptly return to the disclosing Party or destroy all copies of Confidential Information received from such Party, and shall return or destroy, and document the destruction of, all summaries, abstracts, extracts, or other documents which contain any Confidential Information of the other Party in any form, except that each Party shall be permitted to retain a copy (or copies, as necessary) of such Confidential Information for archival purposes or to enforce or verify compliance with this Agreement, or as required by any applicable law or regulation.

ARTICLE 12: DISPUTE RESOLUTION

All Disputes shall be first referred to a Vice President, Center for Applied Technology Development of COH (the "**COH VP**") and the President of Licensee for resolution, prior to proceeding under the other provisions of this Article 12. A Dispute shall be referred to such executives upon one Party (the " **Initiating Party**") providing the other Party (the "**Responding Party**") with notice that such Dispute exists, together with a written statement describing the Dispute with reasonable specificity and proposing a resolution to such Dispute that the Initiating Party is willing to accept, if any. Within ten days after having received such statement and proposed resolution, if any, the Responding Party shall respond with a written statement that provides additional information, if any, regarding such Dispute, and proposes a resolution to such Dispute that the Responding Party is willing to accept, if any. In the event that such Dispute is not resolved within 60 days after the Responding Party's receipt of the Initiating Party's notice, either Party may bring and thereafter maintain suit against the other with respect to such Dispute; provided, however, that the exclusive jurisdiction of any such suit shall be the state and federal courts located in Los Angeles County, California, and the Parties hereby consent to the exclusive jurisdiction and venue of such courts.

ARTICLE 13: GOVERNMENTAL MATTERS

13.1 **Governmental Approval or Registration**. If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee shall assume all legal obligations to do so. Licensee shall notify COH if it becomes aware that this Agreement is subject to a U.S. or foreign government reporting or approval requirement. Licensee shall make all necessary filings and pay all costs including fees, penalties and all other out-of-pocket costs associated with such reporting or approval process.

13.2 **Export Control Laws**. Licensee shall observe all applicable U.S. and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations and the Export Administration Regulations.

13.3 **Preference for United States Industry**. If Licensee sells a Licensed Product in the U.S., Licensee shall manufacture said product substantially in the U.S.

ARTICLE 14: MISCELLANEOUS

14.1 **Assignment and Delegation**. Except as expressly provided in this Section 14.1, neither this Agreement nor any right or obligation hereunder shall be assignable in whole or in part, whether by operation of law, or otherwise by Licensee without the prior written consent of COH. Notwithstanding the foregoing, Licensee may assign or transfer its rights and obligations under this Agreement to a Person that succeeds to all or substantially all of that Party's business or assets, whether by sale, merger, operation of law or otherwise and provided that such Person agrees, in form and substance reasonably acceptable to COH, to be bound as a direct party to this Agreement in lieu of or in addition to Licensee and provided further that Licensee has complied with its obligations pursuant to Section 4.5. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the Parties hereto and their respective successors and permitted assignees. Any transfer or assignment of this Agreement in violation of this Section 14.1 shall be null and void.

14.2 **Entire Agreement**. This Agreement and the Research Agreement contains the entire agreement between the Parties relating to the subject matter hereof, and all prior understandings, representations and warranties between the Parties are superseded by this Agreement. For clarity, the Original Agreement shall be deemed amended and restated in its entirety by this Agreement, and the corresponding A&R CD123 License and the corresponding A&R IL-13 License to be executed by the Parties simultaneously herewith, effective as of the A&R Effective Date.

14.3 **Amendments**. Changes and additional provisions to this Agreement shall be binding on the Parties only if agreed upon in writing and signed by the Parties.

14.4 **Applicable Law**. This Agreement shall be construed and interpreted in accordance with the laws of the State of California and all rights and remedies shall be governed by such laws without regard to principles of conflicts of law.

14.5 **Force Majeure**. If the performance of this Agreement or any obligations hereunder is prevented, restricted or interfered with by reason of earthquake, fire, flood or other casualty or due to strikes, riot, storms, explosions, acts of God, war, terrorism, or a similar occurrence or condition beyond the reasonable control of the Parties, the Party so affected shall, upon giving prompt notice to the other Parties, be excused from such performance during such prevention, restriction or interference, and any failure or delay resulting therefrom shall not be considered a breach of this Agreement.

14.6 **Severability**. The Parties do not intend to violate any public policy or statutory common law. However, if any sentence, paragraph, clause or combination of this Agreement is in violation of any law or is found to be otherwise unenforceable, such sentence, paragraph, clause or combination of the same shall be deleted and the remainder of this Agreement shall remain binding, provided that such deletion does not alter the basic purpose and structure of this Agreement.

14.7 **Notices**. All notices, requests, demands, and other communications relating to this Agreement shall be in writing in the English language and shall be delivered in person or by mail, international courier or facsimile transmission (with a confirmation copy forwarded by courier or mail). Notices sent by mail shall be sent by first class mail or the equivalent, registered or certified, postage prepaid, and shall be deemed to have been given on the date actually received. Notices sent by international courier shall be sent using a service which provides traceability of packages. Notices shall be sent as follows:

Notices to COH:	with a copy to:
Office of Technology Licensing City of Hope 1500 East Duarte Road Duarte, CA 91010 Attn: Sr. VP, Center for Applied Technology Development Fax: 626-301-8175	Office of General Counsel City of Hope 1500 East Duarte Road Duarte, CA 91010 Attn: General Counsel Fax: 626-301-8863
Notices to Licensee:	with a copy to:
Mustang Bio, Inc. 2 Gansevoort, 9th Floor New York, NY 10014 Attn: CEO	Mustang Bio, Inc. 2 Gansevoort, 9th Floor New York, NY 10014 Attn: Corporate Secretary

Either Party may change its address for notices or facsimile number at any time by sending notice to the other Party.

14.8 **Independent Contractor**. Nothing herein shall create any association, partnership, joint venture, fiduciary duty or the relation of principal and agent between the Parties hereto, it being understood that each Party is acting as an independent contractor, and neither Party shall have the authority to bind the other or the other's representatives in any way.

14.9 **Waiver**. No delay on the part of either Party hereto in exercising any power or right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any power or right hereunder preclude other or further exercise thereof or the exercise of any other power or right. No waiver of this Agreement or any provision hereof shall be enforceable against any Party hereto unless in writing, signed by the Party against whom such waiver is claimed, and shall be limited solely to the one event.

14.10 **Interpretation**. This Agreement has been prepared jointly and no rule of strict construction shall be applied against either Party. In this Agreement, the singular shall include the plural and vice versa and the word "including" shall be deemed to be followed by the phrase "without limitation." The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

14.11 **Counterparts**. This Agreement may be executed in counterparts, each of which together shall constitute one and the same Agreement. For purposes of executing this agreement, a facsimile copy or an emailed PDF of this Agreement, including the signature pages, will be deemed an original.

14.12 **Licensee Certification**. Licensee certifies to COH, under penalty of perjury, that Licensee has not been convicted of a criminal offense related to health care, is not currently debarred, excluded or otherwise ineligible for participation in federally funded health care programs and has not arranged or contracted (by employment or otherwise) with any employee, contractor, or agent that it knew or should have known are excluded from participation in any federal health care program, and will not knowingly arrange or contract with any such individuals or entities during the term of this Agreement. Licensee agrees to notify COH in writing immediately of any threatened, proposed or actual conviction relating to health care, of any threatened, proposed or actual debarment or exclusion from participation in federally funded programs, of COH or any employee, contractor or agent of COH. Any breach of this Section 14.12 by Licensee shall be grounds for termination of this Agreement by COH in accordance with Section 8.2.1.

14.13 **Publicity**. Neither Party may issue a press releases or otherwise disclose the existence or terms of this Agreement without the prior written consent of the other Party; provided, however, that once the existence or any terms or conditions of this Agreement has been publicly disclosed in a manner mutually and reasonably agreed-to by the Parties, either Party may republish the facts previously disclosed without the prior consent of the other Party. COH may, in its sole discretion and without the approval of Licensee, publicly disclose the existence of this Agreement and the overall potential value of the Agreement to COH, so long as the detailed and specific terms and conditions of this Agreement are not disclosed. If a third party inquires whether a license is available, COH may disclose the existence of the Agreement and the extent of its grant in Section 3.1 to such third party, but will not disclose the name of the Licensee, except where COH is required to release information under either the California Public Records Act or other applicable law.

* * * * *

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives.

MUSTANG BIO, INC.		CITY OF HOPE	
By:	/s/ Michael S. Weiss	By:	/s/ Robert Stone
Name	Michael S. Weiss	Name:	Robert Stone
Title:	President & CEO	Title:	CEO & President

EXHIBIT A

Form of Charter

EXHIBIT 31.1

CERTIFICATION PURSUANT TO

SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Michael S. Weiss certify that:

(1) I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2016 of Mustang Bio, Inc. (the registrant);

(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 the 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.

Dated: March 30, 2017

By: /s/ Michael S. Weiss
Michael S. Weiss
Executive Chairman of the Board and Chief Executive Officer

EXHIBIT 31.2

CERTIFICATION PURSUANT TO

SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David J. Horin, certify that:

(1) I have reviewed this Annual Report on Form 10-K for the year ended December 31, 2016 of Mustang Bio, Inc. (the registrant);

(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 the 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 the 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.

Dated: March 30, 2017

By: /s/ David S. Horin
David S. Horin
Interim Chief Financial Officer

EXHIBIT 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Fortress Biotech, Inc. (the "Company") for the period ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael S. Weiss, Chairman, President and Chief Executive Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The 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 Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of, and for, the periods presented in the Report.

Dated: March 30, 2017

By: /s/ Michael S. Weiss
Michael S. Weiss
Chairman, President and Chief Executive Officer

EXHIBIT 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of Fortress Biotech, Inc. (the "Company") for the period ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David J. Horin, Interim Chief Financial Officer of the Company, hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The 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 Report fairly presents, in all material respects, the financial condition and results of operations of the Company, as of, and for, the periods presented in the Report.

Dated: March 30, 2017

By: /s/ David J. Horin
David J. Horin
Interim Chief Financial Officer